

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 March 31, 2019

Commission file number 001-2979

WELLS FARGO & COMPANY

(Exact name of registrant as specified in its charter)

Delaware

(State of incorporation)

No. 41-0449260

(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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit 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
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

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

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

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

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange on Which Registered</u>
Common Stock, par value \$1-2/3	WFC	New York Stock Exchange (NYSE)
7.5% Non-Cumulative Perpetual Convertible Class A Preferred Stock, Series L	WFC.PRL	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series N	WFC.PRN	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series O	WFC.PRO	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series P	WFC.PRP	NYSE
Depository Shares, each representing a 1/1000th interest in a share of 5.85% Fixed-to-Floating Rate Non-Cumulative Perpetual Class A Preferred Stock, Series Q	WFC.PRQ	NYSE
Depository Shares, each representing a 1/1000th interest in a share of 6.625% Fixed-to-Floating Rate Non-Cumulative Perpetual Class A Preferred Stock, Series R	WFC.PRR	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series T	WFC.PRT	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series V	WFC.PRV	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series W	WFC.PRW	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series X	WFC.PRX	NYSE
Depository Shares, each representing a 1/1000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series Y	WFC.PRY	NYSE
Guarantee of 5.80% Fixed-to-Floating Rate Normal Wachovia Income Trust Securities of Wachovia Capital Trust III	WBTP	NYSE
Guarantee of Medium-Term Notes, Series A, due October 30, 2028 of Wells Fargo Finance LLC	WFC/28A	NYSE

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

Shares Outstanding

April 24, 2019

Common stock, \$1-2/3 par value

4,494,342,882

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CROSS-REFERENCE INDEX

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PART I - FINANCIAL INFORMATION

FINANCIAL REVIEW

Summary Financial Data

(\$ in millions, except per share amounts)	Quarter ended			% Change	
	Mar 31, 2019	Dec 31, 2018	Mar 31, 2018	Mar 31, 2019 from Dec 31, 2018	Mar 31, 2019 from Mar 31, 2018
For the Period					
Wells Fargo net income	\$ 5,860	6,064	5,136	(3)%	14
Wells Fargo net income applicable to common stock	5,507	5,711	4,733	(4)	16
Diluted earnings per common share	1.20	1.21	0.96	(1)	25
Profitability ratios (annualized):					
Wells Fargo net income to average assets (ROA)	1.26%	1.28	1.09	(2)	16
Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity (ROE)	12.71	12.89	10.58	(1)	20
Return on average tangible common equity (ROTCE) (1)	15.16	15.39	12.62	(1)	20
Efficiency ratio (2)	64.4	63.6	68.6	1	(6)
Total revenue	\$ 21,609	20,980	21,934	3	(1)
Pre-tax pre-provision profit (PTPP) (3)	7,693	7,641	6,892	1	12
Dividends declared per common share	0.45	0.43	0.39	5	15
Average common shares outstanding	4,551.5	4,665.8	4,885.7	(2)	(7)
Diluted average common shares outstanding	4,584.0	4,700.8	4,930.7	(2)	(7)
Average loans	\$ 950,010	946,336	951,024	—	—
Average assets	1,883,091	1,879,047	1,915,896	—	(2)
Average total deposits	1,262,062	1,268,948	1,297,178	(1)	(3)
Average consumer and small business banking deposits (4)	739,654	736,295	755,483	—	(2)
Net interest margin	2.91%	2.94	2.84	(1)	2
At Period End					
Debt securities	\$ 483,467	484,689	472,968	—	2
Loans	948,249	953,110	947,308	(1)	—
Allowance for loan losses	9,900	9,775	10,373	1	(5)
Goodwill	26,420	26,418	26,445	—	—
Equity securities	58,440	55,148	58,935	6	(1)
Assets	1,887,792	1,895,883	1,915,388	—	(1)
Deposits	1,264,013	1,286,170	1,303,689	(2)	(3)
Common stockholders' equity	176,025	174,359	181,150	1	(3)
Wells Fargo stockholders' equity	197,832	196,166	204,952	1	(3)
Total equity	198,733	197,066	205,910	1	(3)
Tangible common equity (1)	147,723	145,980	151,878	1	(3)
Capital ratios (5):					
Total equity to assets	10.53%	10.39	10.75	1	(2)
Risk-based capital:					
Common Equity Tier 1	11.92	11.74	11.92	2	—
Tier 1 capital	13.64	13.46	13.76	1	(1)
Total capital	16.74	16.60	16.92	1	(1)
Tier 1 leverage	9.15	9.07	9.32	1	(2)
Common shares outstanding	4,511.9	4,581.3	4,873.9	(2)	(7)
Book value per common share (6)	\$ 39.01	38.06	37.17	2	5
Tangible book value per common share (1)(6)	32.74	31.86	31.16	3	5
Team members (active, full-time equivalent)	262,100	258,700	265,700	1	(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 securities, 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. Beginning January 1, 2018, the requirements for calculating common equity tier 1 and tier 1 capital, along with risk-weighted assets, became fully phased-in; accordingly, the information presented reflects fully phased-in common equity tier 1 capital, tier 1 capital and risk-weighted assets but reflects total capital still in accordance with Transition Requirements. See the "Capital Management" section and Note 23 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report for additional information.
- (6) 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 in the “Risk Factors” and “Regulation and Supervision” sections of our Annual Report on Form 10-K for the year ended December 31, 2018 (2018 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 definitions of terms used throughout this Report.

Financial Review

Overview

Wells Fargo & Company is a diversified, community-based financial services company with \$1.89 trillion in assets. Founded in 1852 and headquartered in San Francisco, we provide banking, investment and mortgage products and services, as well as consumer and commercial finance, through 7,700 locations, more than 13,000 ATMs, digital (online, mobile and social), and contact centers (phone, email and correspondence), and we have offices in 32 countries and territories to support customers who conduct business in the global economy. With approximately 262,000 active, full-time equivalent team members, we serve one in three households in the United States and ranked No. 26 on *Fortune’s* 2018 rankings of America’s largest corporations. We ranked fourth in assets and third in the market value of our common stock among all U.S. banks at March 31, 2019.

We use our *Vision, Values & Goals* to guide us toward growth and success. Our vision is to satisfy our customers’ financial needs and help them succeed financially. 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 guide the actions we take. First, we place customers at the center of everything we do. We want to exceed customer expectations and build relationships that last a lifetime. Second, we value and support our people as a competitive advantage and strive to attract, develop, motivate, and retain the best team members. Third, we strive for the highest ethical standards of integrity, transparency, and principled performance. Fourth, we value and promote diversity and inclusion in all aspects of business and at all levels. Fifth, we look to each of our team members to be a leader in establishing, sharing, and communicating our vision for our customers, communities, team members, and shareholders. 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 have six long-term goals for the Company, which entail becoming the financial services leader in the following areas:

- Customer service and advice – provide exceptional service and guidance to our customers to help them succeed financially.

- Team member engagement – be a company where people feel included, valued, and supported; everyone is respected; and we work as a team.
- Innovation – create lasting value for our customers and increased efficiency for our operations through innovative thinking, industry-leading technology, and a willingness to test and learn.
- Risk management – set the global standard in managing all forms of risk.
- Corporate citizenship – make a positive contribution to communities through philanthropy, advancing diversity and inclusion, creating economic opportunity, and promoting environmental sustainability.
- Shareholder value – deliver long-term value for shareholders.

On March 28, 2019, the Company announced that Timothy J. Sloan had informed the Company’s Board of Directors (Board) of his decision to retire from the Company, effective June 30, 2019, and to step down as the Company’s Chief Executive Officer and President and as a member of the Company’s Board effective March 28, 2019. The Board elected C. Allen Parker as interim CEO and President and as a member of the Board effective March 28, 2019. The Board is conducting an external search for a permanent CEO. During the search period, the Board will work closely with Mr. Parker and the Company’s leadership team to continue to move forward on Wells Fargo’s goals and commitments.

Federal Reserve Board Consent Order Regarding Governance Oversight and Compliance and Operational Risk Management

On February 2, 2018, the Company entered into a consent order with the Board of Governors of the Federal Reserve System (FRB). As required by the consent order, the Board submitted to the FRB a plan to further enhance the Board’s governance and oversight of the Company, and the Company submitted to the FRB a plan to further improve the Company’s compliance and operational risk management program. The consent order also requires the Company, following the FRB’s acceptance and approval of the plans and the Company’s adoption and implementation of the plans, to complete an initial third-party review of the enhancements and improvements provided for in the plans. Until this third-party review is complete and the plans are approved and implemented to the satisfaction of the FRB, the Company’s total consolidated assets will be limited to the level as of December 31, 2017. Compliance with this asset cap will be measured on a two-quarter daily average basis to allow for

Overview (continued)

management of temporary fluctuations. As of the end of first quarter 2019, our total consolidated assets, as calculated pursuant to the requirements of the consent order, were below our level of total assets as of December 31, 2017. Additionally, after removal of the asset cap, a second third-party review must also be conducted to assess the efficacy and sustainability of the enhancements and improvements.

Consent Orders with the Consumer Financial Protection Bureau and Office of the Comptroller of the Currency Regarding Compliance Risk Management Program, Automobile Collateral Protection Insurance Policies, and Mortgage Interest Rate Lock Extensions

On April 20, 2018, the Company entered into consent orders with the Consumer Financial Protection Bureau (CFPB) and the Office of the Comptroller of the Currency (OCC) to pay an aggregate of \$1 billion in civil money penalties to resolve matters regarding the Company's compliance risk management program and past practices involving certain automobile collateral protection insurance policies and certain mortgage interest rate lock extensions. As required by the consent orders, the Company submitted to the CFPB and OCC an enterprise-wide compliance risk management plan and a plan to enhance the Company's internal audit program with respect to federal consumer financial law and the terms of the consent orders. In addition, as required by the consent orders, the Company submitted for non-objection plans to remediate customers affected by the automobile collateral protection insurance and mortgage interest rate lock matters, as well as a plan for the management of remediation activities conducted by the Company.

Retail Sales Practices Matters

As we have previously reported, in September 2016 we announced settlements with the CFPB, the 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 building a better Company for the future.

Our priority of rebuilding trust has included numerous actions focused on identifying potential financial harm and customer remediation. The Board and management are conducting company-wide reviews of sales practices issues. These reviews are ongoing. In August 2017, a third-party consulting firm completed an expanded data-driven review of retail banking accounts opened from January 2009 to September 2016 to identify financial harm stemming from potentially unauthorized accounts. We have completed financial remediation for the customers identified through the expanded account analysis. Additionally, customer outreach under the \$142 million class-action lawsuit settlement concerning improper retail sales practices (*Jabbari v. Wells Fargo Bank, N.A.*) into which the Company entered to provide further remediation to customers, concluded in June 2018 and the period for customers to submit claims closed on July 7, 2018. The settlement administrator will pay claims following the calculation of compensatory damages and favorable resolution of pending appeals in the case.

For additional information regarding sales practices matters, including related legal matters, see the "Risk Factors" section in our 2018 Form 10-K and Note 14 (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, and we have accrued for the reasonably estimable remediation costs related to these matters, which amounts may change based on additional facts and information, as well as ongoing reviews and communications with our regulators. As part of this effort, we are focused on the following key areas:

- **Automobile Lending Business** The Company is reviewing practices concerning the origination, servicing, and collection of consumer automobile loans, including matters related to certain insurance products. In July 2017, the Company announced it would 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 that the borrowers did not have physical damage insurance coverage on their automobiles as required during the term of their automobile loans). The Company is in the process of providing remediation to affected customers and/or letters to affected customers through which they may claim or otherwise receive remediation compensation for policies placed between October 15, 2005, and September 30, 2016. In addition, the Company has identified certain issues related to the unused portion of guaranteed automobile protection waiver or insurance agreements between the customer and dealer and, by assignment, the lender, which will result in remediation to customers in certain states. The Company is in the process of providing remediation to affected customers. The Company has also identified certain issues related to its consumer automobile collections processes for customers in default, including legal notice practices in certain states and expenses charged in connection with certain repossessions. We expect remediation of affected customers will be required.
- **Add-on Products** The Company is reviewing practices related to certain consumer "add-on" products, including identity theft and debt protection products that were subject to an OCC consent order entered into in June 2015, as well as home and automobile warranty products, and memberships in discount programs. The products were sold to customers through a number of distribution channels and, in some cases, were acquired by the Company in connection with the purchase of loans. Sales of certain of these products have been discontinued over the past few years primarily due to decisions made by the Company in the normal course of business, and by mid-2017, the Company had ceased selling any of these products to consumers. We are in the process of providing remediation where we identify affected customers, and are also providing refunds to customers who purchased certain products. The review of the Company's historical practices with respect to these products is ongoing, focusing on, among other topics, sales practices, adequacy of disclosures, customer servicing, and volume and type of customer complaints.
- **Consumer Deposit Account Freezing/Closing** The Company is reviewing certain historical practices associated with 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. Based on our ongoing review, we expect remediation of affected customers will be required.

- **Review of Certain Activities Within Wealth and Investment Management** A review of certain activities within Wealth and Investment Management (WIM) being conducted by the Board, in response to inquiries from federal government agencies, is assessing whether there have been inappropriate referrals or recommendations, including with respect to rollovers for 401(k) plan participants, certain alternative investments, or referrals of brokerage customers to the Company's investment and fiduciary services business. The Board's review is substantially completed and has not, to date, uncovered evidence of systemic or widespread issues in these businesses. Federal government agencies continue to review this matter.
- **Fiduciary and Custody Account Fee Calculations** The Company is reviewing fee calculations within certain fiduciary and custody accounts in its investment and fiduciary services business, which is part of the wealth management business in WIM. The Company has determined that there have been instances of incorrect fees being applied to certain assets and accounts, resulting in both overcharges and undercharges to customers. These issues included the incorrect set-up and maintenance in the system of record of the values associated with certain assets. Systems, operations, and account-level reviews are underway to determine the extent of any assets and accounts affected, and root cause analyses are being performed with the assistance of third parties. These reviews are ongoing and, as a result of its reviews to date, the Company has suspended the charging of fees on some assets and accounts, has notified the affected customers, and is continuing its analysis of those assets and accounts. We have begun the process of providing remediation to affected customers and continue to review customer accounts to determine the extent of any necessary remediation, including with respect to additional accounts not yet reviewed, which may lead to additional accruals and fee suspensions.
- **Foreign Exchange Business** The Company has completed an assessment, with the assistance of a third party, of its policies, practices, and procedures in its foreign exchange (FX) business. The FX business continues to revise and implement new policies, practices, and procedures, including those related to pricing. The Company has begun providing remediation to customers that may have received pricing inconsistent with commitments made to those customers, and rebates to customers where historic pricing, while consistent with contracts entered into with those customers, does not conform to recently implemented pricing review standards for prior periods. The Company's review of affected customers is ongoing.
- **Mortgage Loan Modifications** An internal review of the Company's use of a mortgage loan modification underwriting tool identified a calculation error regarding foreclosure attorneys' fees affecting certain accounts that were in the foreclosure process between April 13, 2010, and October 2, 2015, when the error was corrected. A subsequent expanded review identified related errors regarding the maximum allowable foreclosure attorneys' fees permitted for certain accounts that were in the foreclosure process between March 15, 2010, and April 30, 2018, when new controls were implemented. Similar to the initial calculation error, these errors caused an overstatement of the attorneys' fees that were included for purposes of determining whether a customer qualified for a mortgage loan modification or repayment plan pursuant to the requirements of government-sponsored enterprises (such as Fannie Mae and

Freddie Mac), the Federal Housing Administration (FHA), and the U.S. Department of Treasury's Home Affordable Modification Program. Customers were not actually charged the incorrect attorneys' fees. As previously disclosed, the Company has identified customers who, as a result of these errors, were incorrectly denied a loan modification or were not offered a loan modification or repayment plan in cases where they otherwise would have qualified, as well as instances where a foreclosure was completed after the loan modification was denied or the customer was deemed ineligible to be offered a loan modification or repayment plan. The number of previously disclosed customers affected by these errors may change as a result of ongoing validation, but is not expected to change materially upon completion of this validation. The Company has contacted substantially all of the identified customers affected by these errors and has provided remediation as well as the option to pursue no-cost mediation with an independent mediator. The Company's review of its mortgage loan modification practices is ongoing, and we are providing remediation to the extent we identify additional affected customers as a result of this review.

- **Consumer Deposit Account Disclosures** The Company is reviewing certain past disclosures to customers regarding the minimum qualifying debit card usage required to waive monthly service fees on certain consumer deposit accounts. Based on the possibility of confusion by some customers regarding the types of transactions that counted toward the waiver, we expect to refund certain monthly service and related fees to affected customers.

To the extent issues are identified, we will continue to assess any customer harm and provide remediation as appropriate. This effort to identify other instances in which customers may have experienced harm is ongoing, and it is possible that we may identify other areas of potential concern. For more information, including related legal and regulatory risk, see the "Risk Factors" section in our 2018 Form 10-K and Note 14 (Legal Actions) to Financial Statements in this Report.

Financial Performance

Wells Fargo net income was \$5.9 billion in first quarter 2019 with diluted earnings per common share (EPS) of \$1.20, compared with \$5.1 billion and \$0.96, respectively, a year ago. In first quarter 2019:

- revenue was \$21.6 billion, down \$325 million compared with a year ago, with net interest income up \$73 million and noninterest income down \$398 million;
- average loans were \$950.0 billion, down \$1.0 billion from a year ago;
- average deposits were \$1.3 trillion, down \$35.1 billion, or 3%, from a year ago;
- return on assets (ROA) of 1.26% and return on equity (ROE) of 12.71%, were up from 1.09% and 10.58%, respectively, a year ago;
- our credit results remained strong with a net charge-off rate of 0.30% (annualized) of average loans in first quarter 2019, compared with 0.32% (annualized) a year ago;
- nonaccrual loans of \$6.9 billion were down \$434 million, or 6%, from a year ago; and
- we returned \$6.0 billion to shareholders through common stock dividends and net share repurchases, an increase of 49% from the \$4.0 billion we returned in first quarter 2018 and the 15th consecutive quarter of returning more than \$3 billion.

Overview (continued)

Balance Sheet and Liquidity

Our balance sheet remained strong during first quarter 2019 with strong credit quality and solid levels of liquidity and capital. Our total assets were \$1.89 trillion at March 31, 2019. Cash and other short-term investments decreased \$5.9 billion from December 31, 2018, reflecting lower deposit balances. Debt securities were \$483.5 billion at March 31, 2019, a decrease of \$1.2 billion from December 31, 2018, predominantly due to a decrease in available-for-sale debt securities. Loans were down \$4.9 billion, or 1%, from December 31, 2018, driven by declines in real estate 1-4 family junior lien mortgage, commercial and industrial, and other revolving credit and installment loans, partially offset by an increase in commercial real estate mortgage loans.

Average deposits in first quarter 2019 were \$1.3 trillion, down \$35.1 billion from first quarter 2018. The decline was driven by lower Wholesale Banking and Wealth and Investment Management deposits, partially offset by higher retail banking deposits. Our average deposit cost in first quarter 2019 was 65 basis points, up 31 basis points from a year ago, driven by an increase in Wholesale Banking and Wealth and Investment Management deposit rates.

Credit Quality

Solid overall credit results continued in first quarter 2019 as losses remained low and we continued to originate high quality loans, reflecting our long-term risk focus. Net charge-offs were \$695 million, or 0.30% (annualized) of average loans, in first quarter 2019, compared with \$741 million a year ago (0.32%) (annualized). The decrease in net charge-offs in first quarter 2019, compared with a year ago, was predominantly driven by lower losses in the automobile portfolio, partially offset by increases in the commercial and industrial portfolio and the credit card portfolio.

Our commercial portfolio net charge-offs were \$145 million, or 11 basis points (annualized) of average commercial loans, in first quarter 2019, compared with net charge-offs of \$78 million, or 6 basis points (annualized), a year ago. Net consumer credit losses decreased to 51 basis points (annualized) of average consumer loans in first quarter 2019 from 60 basis points (annualized) in first quarter 2018.

The allowance for credit losses as of March 31, 2019, decreased \$492 million compared with a year ago and increased \$114 million from December 31, 2018. We had a \$150 million build in the allowance for credit losses in first quarter 2019, compared with a \$550 million release a year ago. The allowance coverage for total loans was 1.14% at March 31, 2019, compared with 1.19% a year ago and 1.12% at December 31, 2018. The allowance covered 3.8 times annualized first quarter net charge-offs, compared with 3.8 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 \$845 million in first quarter 2019, up from \$191 million a year ago. The increase was predominantly due to an allowance build in first quarter 2019 reflecting a higher probability of slightly less favorable economic conditions, compared with an allowance release for the same period last year, reflecting improvement in our outlook for 2017 hurricane-related losses.

Nonperforming assets increased \$394 million, or 6%, from December 31, 2018 and represented 0.77% of total loans. Nonaccrual loans increased \$409 million from December 31, 2018, driven in part by a borrower in the utility sector, as well as increases in oil and gas. Foreclosed assets declined \$15 million from December 31, 2018.

Capital

Our financial performance in first quarter 2019 allowed us to maintain a solid capital position, with total equity of \$198.7 billion at March 31, 2019, compared with \$197.1 billion at December 31, 2018. We returned \$6.0 billion to shareholders in first quarter 2019 through common stock dividends and net share repurchases, which was 49% more than the \$4.0 billion we returned in first quarter 2018. 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 109%. We continued to reduce our common shares outstanding through the repurchase of 97.4 million common shares in the quarter. We expect to reduce our common shares outstanding through share repurchases throughout the remainder of 2019.

We believe an important measure of our capital strength is the Common Equity Tier 1 (CET1) ratio under Basel III, fully phased-in, which was 11.92% at March 31, 2019, up from 11.74% at December 31, 2018, but well above our internal target of 10%. As of March 31, 2019, our eligible external total loss absorbing capacity (TLAC) as a percentage of total risk-weighted assets was 23.85%, compared with the required minimum of 22.0%. Likewise, our other regulatory capital ratios remained strong. 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 first quarter 2019 was \$5.9 billion (\$1.20 diluted earnings per common share), compared with \$5.1 billion (\$0.96 diluted per share) for the same period a year ago. Our financial performance in first quarter 2019 benefited from a \$73 million increase in net interest income, a \$1.1 billion decrease in noninterest expense, and a \$493 million decline in income tax expense, partially offset by a \$398 million decrease in noninterest income, and a \$654 million increase in our provision for credit losses. Net income in first quarter 2019 included net discrete income tax benefits of \$297 million related mostly to the results of U.S. federal and state income tax examinations and the accounting for stock compensation activity.

Revenue, the sum of net interest income and noninterest income, was \$21.6 billion in first quarter 2019, compared with \$21.9 billion in the same period a year ago. The decrease in revenue in first quarter 2019, compared with the same period a year ago, was due to a decrease in noninterest income, partially offset by an increase in net interest income. Our diversified sources of revenue generated by our businesses continued to be balanced between net interest income and noninterest income. In first quarter 2019, net interest income represented 57% of revenue, compared with 56% for the same period a year ago. Noninterest income was \$9.3 billion in first quarter 2019, representing 43% of revenue, compared with \$9.7 billion (44%) in first quarter 2018.

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 debt and equity securities based on a 21% federal statutory tax rate for the periods ending March 31, 2019 and 2018.

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, variable sources of interest income, such as loan fees, periodic dividends, and collection of interest on nonaccrual loans, can fluctuate from period to period.

Net interest income on a taxable-equivalent basis was \$12.5 billion in first quarter 2019, compared with \$12.4 billion for the same period a year ago. Net interest margin on a taxable-equivalent basis was 2.91% in first quarter 2019, compared with 2.84% for the same period a year ago. The increase in net interest income and net interest margin in first quarter 2019, compared with the same period a year ago, was driven by:

- the repricing benefits from higher interest rates;
- favorable hedge ineffectiveness accounting results; and
- a reduction in securities premium amortization driven by a refinement of our methodology to determine the remaining contractual life of our agency mortgage-backed securities portfolio;

partially offset by:

- a smaller balance sheet and an unfavorable shift of yields on earnings assets compared with funding sources;
- lower variable sources of interest income, primarily driven by a decrease in interest income received on nonaccrual loans; and
- lower loan swap income due to unwinding the received-fixed loan swap portfolio.

Average earning assets decreased \$30.0 billion in first quarter 2019, compared with the same period a year ago. The change was driven by decreases in:

- average interest-earning deposits of \$31.5 billion;
- average equity securities of \$6.7 billion;
- average mortgage loans held for sale of \$4.5 billion;
- other earning assets of \$1.6 billion and
- average loans of \$1.0 billion;

partially offset by increases in:

- average debt securities of \$10.0 billion; and
- average federal funds sold and securities purchased under resale agreements of \$5.4 billion.

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 were \$1.26 trillion in first quarter 2019, compared with \$1.30 trillion for the same period a year ago, and represented 133% of average loans in first quarter 2019, compared with 136% in first quarter 2018. Average deposits were 73% of average earning assets in first quarter 2019, compared with 74% in first quarter 2018. The average deposit cost for first quarter 2019 was 65 basis points, up 31 basis points from a year ago, driven by an increase in Wholesale Banking and Wealth and Investment Management deposit rates.

Earnings Performance (continued)

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

(in millions)	Quarter ended March 31,					
	2019			2018		
	Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense
Earning assets						
Interest-earning deposits with banks	\$ 140,784	2.33%	\$ 810	172,291	1.49%	\$ 632
Federal funds sold and securities purchased under resale agreements	83,539	2.40	495	78,135	1.40	271
Debt securities (3):						
Trading debt securities	89,378	3.58	798	78,715	3.24	637
Available-for-sale debt securities:						
Securities of U.S. Treasury and federal agencies	14,070	2.14	74	6,426	1.66	26
Securities of U.S. states and political subdivisions	48,342	4.02	486	49,956	3.37	421
Mortgage-backed securities:						
Federal agencies	151,494	3.10	1,173	158,472	2.72	1,076
Residential and commercial	5,984	4.31	64	8,871	4.12	91
Total mortgage-backed securities	157,478	3.14	1,237	167,343	2.79	1,167
Other debt securities	46,788	4.46	517	48,094	3.73	444
Total available-for-sale debt securities	266,678	3.48	2,314	271,819	3.04	2,058
Held-to-maturity debt securities:						
Securities of U.S. Treasury and federal agencies	44,754	2.20	243	44,723	2.20	243
Securities of U.S. states and political subdivisions	6,158	4.03	62	6,259	4.34	68
Federal agency and other mortgage-backed securities	96,004	2.74	656	90,789	2.38	541
Other debt securities	61	3.96	1	695	3.23	5
Total held-to-maturity debt securities	146,977	2.63	962	142,466	2.42	857
Total debt securities	503,033	3.25	4,074	493,000	2.89	3,552
Mortgage loans held for sale (4)	13,898	4.37	152	18,406	3.89	179
Loans held for sale (4)	1,862	5.25	24	2,011	4.92	24
Loans:						
Commercial loans:						
Commercial and industrial – U.S.	286,577	4.48	3,169	272,040	3.85	2,584
Commercial and industrial – Non U.S.	62,821	3.90	604	60,216	3.23	479
Real estate mortgage	121,417	4.58	1,373	126,200	4.05	1,262
Real estate construction	22,435	5.43	301	24,449	4.54	274
Lease financing	19,391	4.61	224	19,265	5.30	255
Total commercial loans	512,641	4.48	5,671	502,170	3.91	4,854
Consumer loans:						
Real estate 1-4 family first mortgage	285,214	3.96	2,821	284,207	4.02	2,852
Real estate 1-4 family junior lien mortgage	33,791	5.75	481	38,844	5.13	493
Credit card	38,182	12.88	1,212	36,468	12.75	1,147
Automobile	44,833	5.19	574	51,469	5.16	655
Other revolving credit and installment	35,349	7.14	623	37,866	6.46	604
Total consumer loans	437,369	5.26	5,711	448,854	5.16	5,751
Total loans (4)	950,010	4.84	11,382	951,024	4.50	10,605
Equity securities	33,080	2.56	211	39,754	2.35	233
Other	4,416	1.63	18	6,015	1.21	19
Total earning assets	\$ 1,730,622	4.00%	\$ 17,166	1,760,636	3.55%	\$ 15,515
Funding sources						
Deposits:						
Interest-bearing checking	\$ 56,253	1.42%	\$ 197	67,774	0.77%	\$ 129
Market rate and other savings	688,568	0.50	847	679,068	0.22	368
Savings certificates	25,231	1.26	78	20,018	0.34	17
Other time deposits	97,830	2.67	645	76,589	1.84	347
Deposits in foreign offices	55,443	1.89	259	94,810	0.98	229
Total interest-bearing deposits	923,325	0.89	2,026	938,259	0.47	1,090
Short-term borrowings	108,651	2.23	597	101,779	1.24	312
Long-term debt	233,172	3.32	1,927	226,062	2.80	1,576
Other liabilities	25,292	2.28	143	27,927	1.92	132
Total interest-bearing liabilities	1,290,440	1.47	4,693	1,294,027	0.97	3,110
Portion of noninterest-bearing funding sources	440,182	—	—	466,609	—	—
Total funding sources	\$ 1,730,622	1.09	4,693	1,760,636	0.71	3,110
Net interest margin and net interest income on a taxable-equivalent basis (5)		2.91%	\$ 12,473		2.84%	\$ 12,405
Noninterest-earning assets						
Cash and due from banks	\$ 19,614			18,853		
Goodwill	26,420			26,516		
Other	106,435			109,891		
Total noninterest-earning assets	\$ 152,469			155,260		
Noninterest-bearing funding sources						
Deposits	\$ 338,737			358,919		
Other liabilities	55,565			56,770		
Total equity	198,349			206,180		
Noninterest-bearing funding sources used to fund earning assets	(440,182)			(466,609)		
Net noninterest-bearing funding sources	\$ 152,469			155,260		
Total assets	\$ 1,883,091			1,915,896		

- (1) Our average prime rate was 5.50% and 4.52% for the quarters ended March 31, 2019 and 2018, respectively. The average three-month London Interbank Offered Rate (LIBOR) was 2.69% and 1.93% for the quarters ended March 31, 2019 and 2018, 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/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 \$162 million and \$167 million for the quarters ended March 31, 2019 and 2018, respectively, predominantly related to tax-exempt income on certain loans and securities. The federal statutory tax rate utilized was 21% for periods presented.

Noninterest Income

Table 2: Noninterest Income

(in millions)	Quarter ended March 31,		%
	2019	2018	
Service charges on deposit accounts	\$ 1,094	1,173	(7)%
Trust and investment fees:			
Brokerage advisory, commissions and other fees	2,193	2,403	(9)
Trust and investment management	786	850	(8)
Investment banking	394	430	(8)
Total trust and investment fees	3,373	3,683	(8)
Card fees	944	908	4
Other fees:			
Lending related charges and fees (1)	347	380	(9)
Cash network fees	109	126	(13)
Commercial real estate brokerage commissions	81	85	(5)
Wire transfer and other remittance fees	113	116	(3)
All other fees	120	93	29
Total other fees	770	800	(4)
Mortgage banking:			
Servicing income, net	364	468	(22)
Net gains on mortgage loan origination/sales activities	344	466	(26)
Total mortgage banking	708	934	(24)
Insurance	96	114	(16)
Net gains from trading activities	357	243	47
Net gains on debt securities	125	1	NM
Net gains from equity securities	814	783	4
Lease income	443	455	(3)
Life insurance investment income	159	164	(3)
All other	415	438	(5)
Total	\$ 9,298	9,696	(4)

NM – Not meaningful

(1) Represents combined amount of previously reported "Charges and fees on loans" and "Letters of credit fees".

Noninterest income was \$9.3 billion in first quarter 2019, compared with \$9.7 billion for the same period a year ago. This income represented 43% of revenue for first quarter 2019, compared with 44% for the same period a year ago. The decline in noninterest income in first quarter 2019, compared with the same period a year ago, was predominantly due to lower trust and investment fees, mortgage banking income, net gains on nonmarketable equity securities, and service charges on deposit accounts. These decreases were partially offset by higher deferred compensation gains (offset in employee benefits expense) and higher gains from trading and debt securities. For more information on our performance obligations and the nature of services performed for certain of our revenues discussed below, see Note 18 (Revenue from Contracts with Customers) to Financial Statements in this Report.

Service charges on deposit accounts were \$1.1 billion in first quarter 2019, compared with \$1.2 billion for the same period a year ago. The decrease in first quarter 2019, compared with the same period a year ago, was due to lower monthly service fees and lower treasury management fees. A significant portion of the lower treasury management fees were due to the impact of a higher earnings credit rate applied to commercial accounts due to increased interest rates. The decrease in service charges on deposit accounts also reflected \$35 million in fee waivers and reversals for customers including those affected by our data

center system outage in February 2019, and the government shutdown in first quarter 2019.

Brokerage advisory, commissions and other fees were \$2.2 billion in first quarter 2019, compared with \$2.4 billion for the same period in 2018. The decrease in first quarter 2019, compared with the same period a year ago, was predominantly due to lower asset-based fees as well as lower transactional commission revenue. Retail brokerage client assets totaled \$1.6 trillion at both March 31, 2019 and 2018. All retail brokerage services are provided by our 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.

Trust and investment management fee income is largely from client assets under management (AUM) for which fees are based on a tiered scale relative to market value of the assets, and client assets under administration (AUA), for which fees are generally based on the extent of services to administer the assets. Trust and investment management fees declined to \$786 million in first quarter 2019, from \$850 million for the same period a year ago, due to decreases in trust fees, investment management fees, and mutual fund asset fees, driven by lower average assets under management. Our AUM totaled \$661.1 billion at March 31, 2019, compared with \$680.4 billion at March 31, 2018, with substantially all of our AUM managed by our WIM operating

Earnings Performance (continued)

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 Management” section in this Report. Our AUA totaled \$1.7 trillion at both March 31, 2019 and 2018.

Investment banking fees declined to \$394 million in first quarter 2019, from \$430 million for the same period in 2018, predominantly due to lower equity and debt originations, partially offset by higher advisory fees.

Card fees were \$944 million in first quarter 2019, compared with \$908 million for the same period in 2018, predominantly due to higher interchange fees driven by increased purchase activity, partially offset by higher rewards costs.

Other fees decreased to \$770 million in first quarter 2019, from \$800 million for the same period in 2018, driven by lower lending related charges and fees and lower cash network fees, partially offset by an increase in all other fees.

Mortgage banking noninterest income decreased to \$708 million in first quarter 2019, from \$934 million for the same period a year ago, driven by decreases in both net servicing income and net gains on mortgage loan origination/sales activities.

In addition to servicing fees, net 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 \$364 million for first quarter 2019 included a \$71 million net MSR valuation gain (\$891 million decrease in the fair value of the MSRs and a \$962 million hedge gain). Net servicing income of \$468 million for first quarter 2018 included a \$110 million net MSR valuation gain (\$1.3 billion increase in the fair value of the MSRs and a \$1.2 billion hedge loss).

Our portfolio of loans serviced for others was \$1.68 trillion at March 31, 2019, and \$1.71 trillion at December 31, 2018. At March 31, 2019, the ratio of combined residential and commercial MSRs to related loans serviced for others was 0.88%, compared with 0.94% at December 31, 2018. 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 were \$344 million in first quarter 2019, compared with \$466 million for the same period a year ago. The decrease in first quarter 2019, compared with the same period a year ago, was predominantly due to lower mortgage loan originations. Total mortgage loan originations were \$33 billion for first quarter 2019, compared with \$43 billion for the same period a year ago. The production margin on residential held-for-sale mortgage loan originations, which represents net gains on residential mortgage loan origination/sales activities divided by total residential held-for-sale mortgage loan 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 March 31,	
	2019	2018
Net gains on mortgage loan origination/sales activities (in millions):		
Residential	(A) \$ 232	324
Commercial	47	76
Residential pipeline and unsold/repurchased loan management (1)	65	66
Total	\$ 344	466
Residential real estate originations (in billions):		
Held-for-sale	(B) \$ 22	34
Held-for-investment	11	9
Total	\$ 33	43
Production margin on residential held-for-sale mortgage loan originations	(A)/ (B) 1.05%	0.94

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

The production margin was 1.05% for first quarter 2019, compared with 0.94% for the same period in 2018. The increase in the production margin in first quarter 2019, compared with the same period in 2018, was largely attributable to a shift to more retail origination volume, which has a higher production margin. Mortgage applications were \$64 billion for first quarter 2019, compared with \$58 billion for the same period a year ago. The 1-4 family first mortgage unclosed application pipeline was \$32 billion at March 31, 2019, compared with \$24 billion at March 31, 2018. 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 11 (Mortgage Banking Activities) and Note 16 (Fair Values of Assets and Liabilities) to Financial Statements in this Report.

Insurance income was \$96 million in first quarter 2019, compared with \$114 million in the same period a year ago. The decrease in first quarter 2019, compared with the same period a year ago, was primarily driven by reduced commission income related to the sale of certain personal insurance agency relationships in second quarter 2018.

Net gains from trading activities, which reflect unrealized changes in fair value of our trading positions and realized gains and losses, were \$357 million in first quarter 2019, compared with \$243 million in the same period a year ago. The increase in first quarter 2019, compared with the same period a year ago, was due to growth in asset-backed securities trading driven by higher residential mortgage-backed securities (RMBS) trading volumes, as well as higher credit trading. 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 and Note 4 (Trading Activities) to Financial Statements in this Report.

Net gains on debt and equity securities totaled \$939 million in first quarter 2019, compared with \$784 million for the same period in 2018, after other-than-temporary impairment (OTTI) write-downs of \$81 million for first quarter 2019, compared with \$30 million for the same period in 2018. The increase in net gains on debt and equity securities in first quarter 2019, compared with the same period a year ago, was predominantly due to higher deferred compensation plan investment results (offset in employee benefits expense – see Table 3a in this Report for more information) and higher net gains on debt securities, partially offset by lower net gains from nonmarketable equity securities. The increase in OTTI in first quarter 2019, compared with the same period a year ago, was predominantly driven by higher write-downs in municipal debt securities and commercial mortgage-backed securities.

Lease income was \$443 million in first quarter 2019, compared with \$455 million for the same period a year ago. The decrease was driven by lower equipment lease income.

All other income was \$415 million in first quarter 2019, compared with \$438 million for the same period a year ago. All other income includes losses on low income housing tax credit investments, foreign currency adjustments, income from investments accounted for under the equity method, hedge accounting results related to hedges of foreign currency risk, and the results of certain economic hedges, any of which can cause lower net gains or increased net losses, resulting in a decrease to all other income. The decrease in all other income in first quarter 2019, compared with the same period a year ago, reflected a pre-tax gain from the sale of Wells Fargo Shareowner Services in first quarter 2018 and a lower benefit from hedge ineffectiveness accounting results in first quarter 2019, partially offset by a \$148 million pre-tax gain from the sale of Business Payroll Services in first quarter 2019 and a loss related to the sale of certain assets and liabilities of Reliable Financial Services, Inc. (a subsidiary of Wells Fargo's automobile financing business) in first quarter 2018. All other income also included a \$608 million and a \$643 million gain from the sales of purchased credit-impaired Pick-a-Pay loans for first quarter 2019 and 2018, respectively.

Earnings Performance (continued)

Noninterest Expense

Table 3: Noninterest Expense

(in millions)	Quarter ended Mar 31,		%
	2019	2018	
Salaries	\$ 4,425	4,363	1%
Commission and incentive compensation	2,845	2,768	3
Employee benefits	1,938	1,598	21
Equipment	661	617	7
Net occupancy (1)	717	713	1
Core deposit and other intangibles	28	265	(89)
FDIC and other deposit assessments	159	324	(51)
Outside professional services	678	821	(17)
Contract services	563	447	26
Operating losses	238	1,468	(84)
Operating leases (2)	286	320	(11)
Advertising and promotion	237	153	55
Outside data processing	167	162	3
Travel and entertainment	147	152	(3)
Postage, stationery and supplies	122	142	(14)
Telecommunications	91	92	(1)
Foreclosed assets	37	38	(3)
Insurance	25	26	(4)
All other	552	573	(4)
Total	\$ 13,916	15,042	(7)

(1) Represents expenses for both leased and owned properties.

(2) Represents expenses for assets we lease to customers.

Noninterest expense was \$13.9 billion in first quarter 2019, down 7% from \$15.0 billion a year ago. The decrease in first quarter 2019, compared with the same period a year ago, was substantially due to lower operating losses.

Personnel expenses, which include salaries, commissions, incentive compensation, and employee benefits, were up \$479 million, or 5%, in first quarter 2019, compared with the

same period a year ago. The increase was due to higher deferred compensation costs (offset in net gains from equity securities), higher stock incentive compensation expense, and annual salary increases, partially offset by lower revenue-related incentive compensation. Table 3a presents deferred compensation plan investment results.

Table 3a: Deferred Compensation Plan Investment Results

(in millions)	Quarter ended	
	Mar 31, 2019	Mar 31, 2018
Net interest income	\$ 13	10
Net gains (losses) from equity securities	345	(6)
Total revenue from deferred compensation plan investments	358	4
Employee benefits expense	357	4
Income before income tax expense	\$ 1	—

Equipment expense was up \$44 million, or 7%, in first quarter 2019, compared with the same period a year ago, due to higher computer software licensing and maintenance and depreciation expense.

Core deposit and other intangibles expense was down \$237 million, or 89%, in first quarter 2019, compared with the same period a year ago, due to lower amortization expense reflecting the end of the 10-year amortization period on Wachovia intangibles.

Federal Deposit Insurance Corporation (FDIC) and other deposit assessments were down \$165 million, or 51%, in first quarter 2019, compared with the same period a year ago, due to the completion of the FDIC temporary surcharge which ended September 30, 2018.

Outside professional and contract services expense was down \$27 million, or 2%, in first quarter 2019, compared with the same period a year ago, reflecting a reduction in remediation-related project spending.

Operating losses were down \$1.2 billion, or 84%, in first quarter 2019, compared with the same period a year ago, driven by lower litigation accruals. First quarter 2018 included an \$800 million discrete litigation accrual in connection with entering into the consent orders with the CFPB and OCC on April 20, 2018.

Advertising and promotion expense was up \$84 million, or 55%, in first quarter 2019, compared with the same period a year ago, due to increases in marketing and branding campaign volumes.

Our efficiency ratio was 64.4% in first quarter 2019, compared with 68.6% in first quarter 2018.

Income Tax Expense

Our effective income tax rate was 13.1% and 21.1% for first quarter 2019 and 2018, respectively. The lower rate in first quarter 2019 was related to net discrete income tax benefits of \$297 million related mostly to the results of U.S. federal and state income tax examinations and the accounting for stock compensation activity. The first quarter 2018 rate reflected the non-tax deductible treatment of an \$800 million discrete litigation accrual in connection with entering into the consent orders with the CFPB and OCC on April 20, 2018.

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). 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 22 (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	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Quarter ended March 31,										
Revenue	\$ 11,750	11,830	7,111	7,279	4,079	4,242	(1,331)	(1,417)	21,609	21,934
Provision (reversal of provision) for credit losses	710	218	134	(20)	4	(6)	(3)	(1)	845	191
Noninterest expense	7,689	8,702	3,838	3,978	3,303	3,290	(914)	(928)	13,916	15,042
Net income (loss)	2,823	1,913	2,770	2,875	577	714	(310)	(366)	5,860	5,136
Average loans	\$ 458.2	470.5	476.4	465.1	74.4	73.9	(59.0)	(58.5)	950.0	951.0
Average deposits	765.6	747.5	409.8	446.0	153.2	177.9	(66.5)	(74.2)	1,262.1	1,297.2

(1) Includes the elimination of certain items that are included in more than one business segment, which predominantly 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 (including funds transfer pricing, capital, liquidity

and certain corporate expenses) in support of the other operating segments and results of investments in our affiliated venture capital and private equity partnerships. We continue to wind down the personal insurance business and expect to substantially complete these activities in the first half of 2019. Table 4a provides additional financial information for Community Banking.

Table 4a: Community Banking

(in millions, except average balances which are in billions)	Quarter ended March 31,		% Change
	2019	2018	
Net interest income	\$ 7,248	7,195	1%
Noninterest income:			
Service charges on deposit accounts	610	639	(5)
Trust and investment fees:			
Brokerage advisory, commissions and other fees (1)	449	478	(6)
Trust and investment management (1)	210	233	(10)
Investment banking (2)	(20)	(10)	(100)
Total trust and investment fees	639	701	(9)
Card fees	858	821	5
Other fees	332	327	2
Mortgage banking	641	842	(24)
Insurance	11	28	(61)
Net gains (losses) from trading activities	5	(1)	600
Net gains on debt securities	37	—	NM
Net gains from equity securities (3)	601	684	(12)
Other income of the segment	768	594	29
Total noninterest income	4,502	4,635	(3)
Total revenue	11,750	11,830	(1)
Provision for credit losses	710	218	226
Noninterest expense:			
Personnel expense	5,981	5,511	9
Equipment	641	596	8
Net occupancy	542	534	1
Core deposit and other intangibles	1	101	(99)
FDIC and other deposit assessments	106	181	(41)
Outside professional services	316	397	(20)
Operating losses	219	1,440	(85)
Other expense of the segment	(117)	(58)	NM
Total noninterest expense	7,689	8,702	(12)
Income before income tax expense and noncontrolling interests	3,351	2,910	15
Income tax expense	424	809	(48)
Net income from noncontrolling interests (4)	104	188	(45)
Net income	\$ 2,823	1,913	48
Average loans	\$ 458.2	470.5	(3)
Average deposits	765.6	747.5	2

NM – Not meaningful

- (1) Represents income on products and services for WIM customers served through Community Banking distribution channels which is offset in our WIM segment and eliminated in consolidation.
- (2) Includes syndication and underwriting fees paid to Wells Fargo Securities which are offset in our Wholesale Banking segment and eliminated in consolidation.
- (3) Primarily represents gains resulting from venture capital investments.
- (4) Reflects results attributable to noncontrolling interests predominantly associated with the Company's consolidated venture capital investments.

Community Banking reported net income of \$2.8 billion for first quarter 2019, up \$910 million, or 48%, compared with the same period a year ago. Revenue was \$11.8 billion for first quarter 2019, down \$80 million, or 1%, from the same period a year ago. The decrease in revenue from first quarter 2018 was due to lower mortgage banking income, trust and investment fees, and market sensitive revenue (consists of net gains from trading activities, debt securities and equity securities), partially offset by higher card fees, other income and net interest income. Average loans of \$458.2 billion in first quarter 2019 decreased \$12.3 billion, or 3%, from first quarter 2018, as growth in nonconforming mortgage loan originations and consumer credit card loans was more than offset by declines in automobile loans and legacy consumer real estate portfolios, including purchased credit-impaired (PCI) Pick-a-Pay and junior lien mortgage loans due to run-off and sales. Average deposits of \$765.6 billion in

first quarter 2019 increased \$18.1 billion, or 2%, from first quarter 2018.

Noninterest expense was \$7.7 billion in first quarter 2019, down \$1.0 billion, or 12%, from first quarter 2018, predominantly due to lower operating losses, core deposit and other intangibles amortization expense, outside professional services, and FDIC expense, partially offset by higher personnel expense. The provision for credit losses increased \$492 million from first quarter 2018, predominantly due to an allowance build in first quarter 2019, reflecting a higher probability of slightly less favorable economic conditions, compared with an allowance release in first quarter 2018 primarily due to improvement in our outlook for 2017 hurricane-related losses. The allowance build was partially offset by lower net charge-offs in the automobile portfolio. Income tax expense decreased \$385 million from first quarter 2018, and included net discrete income tax benefits

related mostly to the results of U.S. federal and state income tax examinations and the accounting for stock compensation activity.

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

Commercial Banking, Commercial Real Estate, Corporate and Investment Banking, Credit Investment Portfolio, Treasury Management, and Commercial Capital. Table 4b provides additional financial information for Wholesale Banking.

Table 4b: Wholesale Banking

(in millions, except average balances which are in billions)	Quarter ended March 31,		% Change
	2019	2018	
Net interest income	\$ 4,534	4,532	—%
Noninterest income:			
Service charges on deposit accounts	483	534	(10)
Trust and investment fees:			
Brokerage advisory, commissions and other fees	78	67	16
Trust and investment management	114	113	1
Investment banking	412	440	(6)
Total trust and investment fees	604	620	(3)
Card fees	86	87	(1)
Other fees	437	472	(7)
Mortgage banking	68	93	(27)
Insurance	78	79	(1)
Net gains from trading activities	333	225	48
Net gains on debt securities	88	1	NM
Net gains from equity securities	77	93	(17)
Other income of the segment	323	543	(41)
Total noninterest income	2,577	2,747	(6)
Total revenue	7,111	7,279	(2)
Provision (reversal of provision) for credit losses	134	(20)	770
Noninterest expense:			
Personnel expense	1,510	1,536	(2)
Equipment	9	12	(25)
Net occupancy	95	100	(5)
Core deposit and other intangibles	24	95	(75)
FDIC and other deposit assessments	45	122	(63)
Outside professional services	184	233	(21)
Operating losses	1	8	(88)
Other expense of the segment	1,970	1,872	5
Total noninterest expense	3,838	3,978	(4)
Income before income tax expense and noncontrolling interests	3,139	3,321	(5)
Income tax expense	369	448	(18)
Net loss from noncontrolling interests	—	(2)	100
Net income	\$ 2,770	2,875	(4)
Average loans	\$ 476.4	465.1	2
Average deposits	409.8	446.0	(8)

NM – Not meaningful

Wholesale Banking reported net income of \$2.8 billion in first quarter 2019, down \$105 million, or 4%, from the same period a year ago. Revenue decreased \$168 million, or 2%, from first quarter 2018, largely due to the gain related to the sale of Wells Fargo Shareowner Services in first quarter 2018, a decrease in service charges on deposit accounts driven by lower treasury management fees, and lower mortgage banking income, partially offset by higher market sensitive revenue. Net interest income of \$4.5 billion in first quarter 2019 was relatively stable compared with the same period a year ago. Average loans of \$476.4 billion in first quarter 2019, increased \$11.3 billion, or 2%, from first quarter 2018, as growth in commercial and industrial loans in Corporate and Investment Banking and Commercial Capital were partially offset by lower commercial real estate lending. Average deposits of \$409.8 billion in first quarter 2019 decreased \$36.2 billion, or 8%, from first quarter 2018. The decline in average deposits in first quarter 2019, compared with the same period a year ago, was driven by actions taken in the first half of 2018 in response to the asset cap included in the FRB consent order on February 2, 2018, and declines across many businesses as commercial customers allocated more cash to higher-rate

alternatives. Noninterest expense decreased \$140 million, or 4%, from first quarter 2018, mostly due to lower FDIC assessments, core deposit and other intangibles amortization, personnel expenses and operating lease expense. This decrease was partially offset by higher regulatory, risk, and technology expenses. The provision for credit losses increased \$154 million from first quarter 2018 predominately due to an allowance build in first quarter 2019, reflecting higher nonaccrual loans, compared with an allowance release in first quarter 2018, as well as lower recoveries in first quarter 2019.

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

Earnings Performance (continued)

investment management capabilities delivered to global institutional clients through separate accounts and the Wells Fargo Funds. On April 9, 2019, we announced an agreement to sell our Institutional Retirement and Trust

business. The transaction is expected to close in third quarter 2019. 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 March 31,		% Change
	2019	2018	
Net interest income	\$ 1,101	1,112	(1)%
Noninterest income:			
Service charges on deposit accounts	4	4	—
Trust and investment fees:			
Brokerage advisory, commissions and other fees	2,124	2,344	(9)
Trust and investment management	676	743	(9)
Investment banking	5	—	NM
Total trust and investment fees	2,805	3,087	(9)
Card fees	1	1	—
Other fees	4	4	—
Mortgage banking	(3)	(3)	—
Insurance	17	18	(6)
Net gains from trading activities	19	19	—
Net gains on debt securities	—	—	NM
Net gains from equity securities	136	6	NM
Other income of the segment	(5)	(6)	17
Total noninterest income	2,978	3,130	(5)
Total revenue	4,079	4,242	(4)
Provision (reversal of provision) for credit losses	4	(6)	167
Noninterest expense:			
Personnel expense	2,197	2,165	1
Equipment	11	10	10
Net occupancy	112	109	3
Core deposit and other intangibles	3	69	(96)
FDIC and other deposit assessments	14	36	(61)
Outside professional services	184	198	(7)
Operating losses	21	22	(5)
Other expense of the segment	761	681	12
Total noninterest expense	3,303	3,290	—
Income before income tax expense and noncontrolling interests	772	958	(19)
Income tax expense	192	239	(20)
Net income from noncontrolling interests	3	5	(40)
Net income	\$ 577	714	(19)
Average loans	\$ 74.4	73.9	1
Average deposits	153.2	177.9	(14)

NM – Not meaningful

WIM reported net income of \$577 million in first quarter 2019, down \$137 million, or 19%, from the same period a year ago. Revenue declined \$163 million, or 4%, from first quarter 2018, predominantly due to lower asset-based fees and brokerage transaction revenue, partially offset by net gains from equity securities on higher deferred compensation plan investment results (offset in employee benefits expense). Asset-based fees decreased largely due to lower retail brokerage advisory fees. Average loans of \$74.4 billion in first quarter 2019 increased 1% from the same period a year ago, driven by growth in nonconforming mortgage loans. Average deposits in first quarter 2019 decreased \$24.7 billion, or 14%, from the same period a year ago, as customers continued to allocate more cash into higher yielding liquid alternatives. Noninterest expense of \$3.3 billion was relatively stable in first quarter 2019, compared with first quarter 2018, as higher employee benefits expense from deferred compensation plan expense (offset in net gains from equity securities) and higher regulatory, risk, and technology expense was partially offset by lower broker commissions and core deposit and other intangibles amortization expense. The provision for credit losses increased \$10 million from the first quarter 2018.

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, are priced at the beginning of the quarter 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 March 31, 2019 and 2018.

Table 4d: Retail Brokerage Client Assets

(\$ in billions)	March 31,	
	2019	2018
Retail brokerage client assets	\$ 1,600.6	1,623.0
Advisory account client assets	546.7	540.4
Advisory account client assets as a percentage of total client assets	34%	33

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 as of the beginning of the quarter, 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 first quarter 2019 and 2018, 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 first quarter 2019 and 2018.

Table 4e: Retail Brokerage Advisory Account Client Assets

(in billions)	Quarter ended				
	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period
March 31, 2019					
Client directed (4)	\$ 151.5	7.9	(9.3)	13.5	163.6
Financial advisor directed (5)	141.9	7.5	(7.7)	15.2	156.9
Separate accounts (6)	136.4	5.6	(6.9)	13.2	148.3
Mutual fund advisory (7)	71.3	2.8	(3.2)	7.0	77.9
Total advisory client assets	\$ 501.1	23.8	(27.1)	48.9	546.7
March 31, 2018					
Client directed (4)	\$ 170.9	9.4	(9.2)	(2.7)	168.4
Financial advisor directed (5)	147.0	8.1	(7.0)	0.5	148.6
Separate accounts (6)	149.1	6.8	(7.3)	(2.0)	146.6
Mutual fund advisory (7)	75.8	4.0	(3.0)	—	76.8
Total advisory client assets	\$ 542.8	28.3	(26.5)	(4.2)	540.4

(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 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. On April 9, 2019, we announced an agreement to sell our Institutional Retirement and Trust business. The transaction is expected to close in third quarter 2019. Table 4f presents AUM activity for the first quarter of 2019 and 2018.

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

(in billions)	Quarter ended				
	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period
March 31, 2019					
Assets managed by WFAM (4):					
Money market funds (5)	\$ 112.4	—	(2.9)	—	109.5
Other assets managed	353.5	19.3	(21.9)	16.1	367.0
Assets managed by Wealth and Retirement (6)	170.7	9.2	(10.4)	11.9	181.4
Total assets under management	\$ 636.6	28.5	(35.2)	28.0	657.9
March 31, 2018					
Assets managed by WFAM (4):					
Money market funds (5)	\$ 108.2	—	(3.2)	—	105.0
Other assets managed	395.7	25.7	(29.2)	(0.4)	391.8
Assets managed by Wealth and Retirement (6)	186.2	10.4	(11.4)	(1.9)	183.3
Total assets under management	\$ 690.1	36.1	(43.8)	(2.3)	680.1

(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 \$4.8 billion and \$5.7 billion as of March 31, 2019 and 2018, respectively, of client assets invested in proprietary funds managed by WFAM.

Balance Sheet Analysis

At March 31, 2019, our assets totaled \$1.89 trillion, down \$8.1 billion from December 31, 2018. Asset decline was driven by declines in cash and due from banks, interest-earning deposits with banks, available-for-sale debt securities, loans, and mortgage servicing rights (MSRs), which decreased by \$2.9 billion, \$21.4 billion, \$1.8 billion, \$4.9 billion, and \$1.3 billion, respectively, from December 31, 2018. Liabilities totaled \$1.69 trillion, down \$9.8 billion from December 31, 2018. The decline in liabilities was due to declines in total deposits, which decreased by \$22.2 billion from December 31, 2018. Total equity increased by \$1.7 billion from December 31, 2018,

predominantly due to a \$2.7 billion increase in cumulative other comprehensive income, and a \$2.6 billion increase in retained earnings, net of dividends paid, partially offset by a \$3.3 billion increase in treasury stock.

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 23 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Available-for-Sale and Held-to-Maturity Debt Securities

Table 5: Available-for-Sale and Held-to-Maturity Debt Securities

(in millions)	March 31, 2019			December 31, 2018		
	Amortized cost	Net unrealized gain (loss)	Fair value	Amortized cost	Net unrealized gain (loss)	Fair value
Available-for-sale	267,246	853	268,099	272,471	(2,559)	269,912
Held-to-maturity	144,990	(291)	144,699	144,788	(2,673)	142,115
Total (1)	\$ 412,236	562	412,798	417,259	(5,232)	412,027

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

Table 5 presents a summary of our available-for-sale and held-to-maturity debt securities, which decreased \$1.6 billion in balance sheet carrying value from December 31, 2018, largely due to net declines in federal agency mortgage-backed securities and residential mortgage-backed securities, partially offset by net purchases of U.S. Treasury and federal agency debt securities.

The total net unrealized gains on available-for-sale debt securities were \$853 million at March 31, 2019, up from net unrealized losses of \$2.6 billion at December 31, 2018, primarily due to lower U.S. interest rates and tighter credit and mortgage spreads. For a discussion of our investment management objectives and practices, see the “Balance Sheet Analysis” section in our 2018 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 debt securities for OTTI quarterly or more often if a potential loss-triggering event occurs. In first quarter 2019, we recognized \$45 million of OTTI write-downs on debt securities. 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 2018 Form 10-K and Note 5 (Available-for-Sale and Held-to-Maturity Debt Securities) to Financial Statements in this Report.

At March 31, 2019, debt securities included \$55.9 billion of municipal bonds, of which 93.3% were rated “A-” or better based predominantly on external and, in some cases, internal ratings. Additionally, some of the debt securities in our total municipal bond portfolio are guaranteed against loss by bond insurers. 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 5.6 years at March 31, 2019. The expected remaining maturity is shorter than the remaining contractual maturity for the 58% of this portfolio that is mortgage-backed securities (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 March 31, 2019			
Actual	\$ 156.5	(0.5)	5.1
Assuming a 200 basis point:			
Increase in interest rates	141.0	(16.0)	7.3
Decrease in interest rates	166.7	9.7	3.3

The weighted-average expected maturity of debt securities held-to-maturity (HTM) was 5.1 years at March 31, 2019. HTM debt securities are measured at amortized cost and, therefore, changes in the fair value of our held-to-maturity MBS resulting from changes in interest rates are not recognized in our financial results. See Note 5 (Available-for-Sale and Held-to-Maturity Debt Securities) to Financial Statements in this Report for a summary of debt 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 \$4.9 billion from December 31, 2018, with a decline in both commercial and consumer loans. Consumer loans were down \$3.7 billion from December 31, 2018, and included sales of \$1.6 billion of 1-4 family first mortgage PCI Pick-a-Pay loans, a continued decline in

junior lien mortgage loans, and a decline in other revolving credit and installment loans reflecting higher short-term rates and market volatility. Commercial loans were down \$1.2 billion, reflecting declines in corporate and investment banking, government and institutional banking, and business banking loans, partially offset by growth in the commercial real estate, commercial capital finance and credit investment portfolios.

Table 7: Loan Portfolios

(in millions)		March 31, 2019	December 31, 2018
Commercial	\$	512,226	513,405
Consumer		436,023	439,705
Total loans	\$	948,249	953,110
Change from prior year-end	\$	(4,861)	(3,660)

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 6 (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)	March 31, 2019				December 31, 2018			
	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	\$ 104,906	217,761	26,467	349,134	109,566	213,425	27,208	350,199
Real estate mortgage	16,871	63,534	41,708	122,113	16,413	63,648	40,953	121,014
Real estate construction	9,867	10,901	1,089	21,857	9,958	11,343	1,195	22,496
Total selected loans	\$ 131,644	292,196	69,264	493,104	135,937	288,416	69,356	493,709
Distribution of loans to changes in interest rates:								
Loans at fixed interest rates	\$ 16,694	28,117	28,527	73,338	17,619	28,545	28,163	74,327
Loans at floating/variable interest rates	114,950	264,079	40,737	419,766	118,318	259,871	41,193	419,382
Total selected loans	\$ 131,644	292,196	69,264	493,104	135,937	288,416	69,356	493,709

Deposits

Deposits were \$1.3 trillion at March 31, 2019, down \$22.2 billion from December 31, 2018, due to a decrease in commercial deposits primarily reflecting seasonality from typically higher fourth quarter levels, partially offset by an increase in consumer and small business banking deposits. The increase in consumer and small business banking deposits was due to higher retail banking deposits reflecting seasonality as well as growth in

certificates of deposit (CDs) and high-yield savings, partially offset by higher balance customers moving a portion of those balances to other higher rate liquid alternatives. 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)	Mar 31, 2019	% of total deposits	Dec 31, 2018	% of total deposits	% Change
Noninterest-bearing	\$ 341,399	27%	\$ 349,534	27%	(2)
Interest-bearing checking	56,372	4	56,797	4	(1)
Market rate and other savings	691,117	55	703,338	55	(2)
Savings certificates	28,313	2	22,648	2	25
Other time deposits	99,401	8	95,602	7	4
Deposits in foreign offices (1)	47,411	4	58,251	5	(19)
Total deposits	\$ 1,264,013	100%	\$ 1,286,170	100%	(2)

(1) Includes Eurodollar sweep balances of \$25.6 billion and \$31.8 billion at March 31, 2019, and December 31, 2018, 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 the “Critical Accounting Policies” section in our 2018 Form 10-K and Note 16 (Fair Values of Assets and Liabilities) to Financial Statements in this Report 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 16 (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 \$198.7 billion at March 31, 2019, compared with \$197.1 billion at December 31, 2018. The increase was driven by a \$2.7 billion increase in cumulative other comprehensive income primarily due to a decrease in long-term yields along with tightening credit spreads resulting in an increase in the value of available-for-sale debt securities, and a \$2.6 billion increase in retained earnings net of dividends paid, partially offset by a \$3.3 billion increase in treasury stock.

Table 10: Fair Value Level 3 Summary

(\$ in billions)	March 31, 2019		December 31, 2018	
	Total balance	Level 3 (1)	Total balance	Level 3 (1)
Assets carried at fair value	\$ 408.0	25.2	408.4	25.3
As a percentage of total assets	22%	1	22	1
Liabilities carried at fair value	\$ 29.0	1.9	28.2	1.6
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 debt and equity 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 Debt and Equity 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 6 (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 13 (Guarantees, Pledged Assets and Collateral, and Other Commitments) to Financial Statements in this Report. We also may enter into commitments to purchase debt and equity securities to provide capital for customers' funding, liquidity or other future needs. For more information, see the "Off-Balance Sheet Arrangements – Contractual Cash Obligations" section in our 2018 Form 10-K and Note 13 (Guarantees, Pledged Assets and Collateral, and Other Commitments) 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 10 (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 similar arrangements. For more information on guarantees and certain contingent arrangements, see Note 13 (Guarantees, Pledged Assets and Collateral, and Other Commitments) 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 15 (Derivatives) to Financial Statements in this Report.

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, shareholders, regulators and other stakeholders. We operate under a Board approved risk management 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 risk, see the “Risk Management” section in our 2018 Form 10-K. The discussion that follows supplements our discussion of the management of certain risks contained in the “Risk Management” section in our 2018 Form 10-K.

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 Board’s Credit Committee has primary oversight responsibility for credit risk. At the management level, the Corporate Credit function, which is part of Corporate Risk, has primary oversight responsibility for credit risk. The Corporate Credit function reports to the CRO and also provides periodic reporting related to credit risk to the Board’s Credit Committee. In addition, the Risk & Control Committee for each business group and enterprise function reports credit risk matters to the Enterprise Risk & Control Committee.

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)	Mar 31, 2019	Dec 31, 2018
Commercial:		
Commercial and industrial	\$ 349,134	350,199
Real estate mortgage	122,113	121,014
Real estate construction	21,857	22,496
Lease financing	19,122	19,696
Total commercial	512,226	513,405
Consumer:		
Real estate 1-4 family first mortgage	284,545	285,065
Real estate 1-4 family junior lien mortgage	33,099	34,398
Credit card	38,279	39,025
Automobile	44,913	45,069
Other revolving credit and installment	35,187	36,148
Total consumer	436,023	439,705
Total loans	\$ 948,249	953,110

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 Solid credit quality continued in first quarter 2019, as our net charge-off rate remained low at 0.30% (annualized) of average total loans. First quarter 2019 results reflected:

- Nonaccrual loans were \$6.9 billion at March 31, 2019, up from \$6.5 billion at December 31, 2018. Commercial nonaccrual loans increased to \$2.8 billion at March 31, 2019, compared with \$2.2 billion at December 31, 2018, and consumer nonaccrual loans declined to \$4.1 billion at March 31, 2019, compared with \$4.3 billion at December 31, 2018. The overall increase in nonaccrual loans reflected an increase in commercial nonaccrual loans driven in part by a customer in the utilities industry, as well as increases in the oil, gas and pipelines portfolio. Nonaccrual loans represented 0.73% of total loans at March 31, 2019, compared with 0.68% at December 31, 2018.
- Net charge-offs (annualized) as a percentage of average total loans decreased to 0.30% in first quarter 2019, compared with 0.32% a year ago. Net charge-offs (annualized) as a percentage of our average commercial and consumer portfolios were 0.11% and 0.51%, respectively, in first quarter 2019, compared with 0.06% and 0.60% in first quarter 2018.
- Loans that are not government insured/guaranteed and 90 days or more past due and still accruing were \$67 million and \$807 million in our commercial and consumer portfolios, respectively, at March 31, 2019, compared with \$94 million and \$885 million at December 31, 2018.
- Our provision for credit losses was \$845 million in first quarter 2019, compared with \$191 million in first quarter 2018. The increase in provision for credit losses was due to an allowance build in first quarter 2019 reflecting a higher probability of slightly less favorable economic conditions, compared with an allowance release in first quarter 2018, reflecting improvement in our outlook for 2017 hurricane-related losses.
- The allowance for credit losses totaled \$10.8 billion, or 1.14% of total loans, at March 31, 2019, up from \$10.7 billion, or 1.12%, at December 31, 2018.

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. A nonaccretable difference is established for PCI loans to absorb losses expected on the contractual amounts of those loans. Amounts absorbed by the nonaccretable difference do not affect the income statement or the allowance for credit losses. The carrying value of PCI loans at March 31, 2019, totaled \$3.2 billion, compared with \$5.0 billion at December 31, 2018. The decline in carrying value was due to the sale of \$1.6 billion of Pick-a-Pay PCI loans in first quarter 2019 and paydowns.

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 2018 Form 10-K, and Note 6 (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, Fair Isaac Corporation (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 6 (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 segmented among special mention, substandard, doubtful and loss categories.

The commercial and industrial loans and lease financing portfolio totaled \$368.3 billion, or 39% of total loans, at March 31, 2019. The net charge-off rate (annualized) for this portfolio was 0.16% in first quarter 2019, compared with 0.11% in first quarter 2018. At March 31, 2019, 0.56% of this portfolio was nonaccruing, compared with 0.43% at December 31, 2018, reflecting an increase of \$486 million in nonaccrual loans, predominantly due to a customer in the utilities industry, as well as increases in the oil, gas and pipelines portfolio. Also, \$16.6 billion of the commercial and industrial loan and lease financing portfolio was internally classified as criticized in accordance with regulatory guidance at March 31, 2019, compared with \$15.8 billion at December 31, 2018. The increase in criticized loans, which also includes the increase in nonaccrual loans, was mostly due to increases in the oil, gas and pipelines, and entertainment and recreation portfolios.

Most of our commercial and industrial loans and lease financing portfolio is secured by short-term assets, such as accounts receivable, inventory and debt 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 foreign loans of \$64.3 billion and \$63.7 billion at March 31, 2019, and December 31, 2018, respectively. Significant industry concentrations of foreign loans include \$26.3 billion and \$25.6 billion in the financials except banks category, \$17.0 billion and \$18.1 billion in the banks category, and \$1.4 billion and \$1.2 billion in the oil, gas and pipelines category at March 31, 2019, and December 31, 2018, respectively. The industry categories were updated in first quarter 2019, to align with industry groupings that our regulators use to monitor industry concentration risks.

Loans in the financials except banks category, which include investment firms and financial vehicles, non-bank creditors and other financial companies, were \$103.6 billion, or 11% of total outstanding loans, at March 31, 2019. A significant portion of this industry category consists of 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 our loan amounts to a percentage of the value of the underlying assets based on analysis of underlying credit risk and other factors such as asset duration and ongoing performance.

Oil, gas and pipelines loans were \$13.3 billion, or 1% of total outstanding loans, at March 31, 2019, compared with \$12.2 billion, or 1% of total outstanding loans, at December 31, 2018. Oil, gas and pipelines nonaccrual loans increased to \$701 million at March 31, 2019, compared with \$416 million at December 31, 2018.

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

(in millions)	March 31, 2019			December 31, 2018		
	Nonaccrual loans	Total portfolio	% of total loans	Nonaccrual loans	Total portfolio	% of total loans
Financials except banks	\$ 207	103,567	11%	\$ 305	105,925	11%
Technology, telecom and media	76	25,580	3	26	25,681	3
Real estate and construction	36	22,932	2	31	23,380	2
Equipment, machinery and parts manufacturing	56	21,500	2	47	20,850	2
Materials and commodities	156	20,345	2	136	18,688	2
Retail	65	20,107	2	87	19,541	2
Banks	—	17,123	2	—	18,407	2
Automobile related	22	16,934	2	16	16,801	2
Food and beverage manufacturing	48	15,216	2	48	15,448	2
Health care and pharmaceuticals	105	15,123	2	124	15,529	2
Entertainment and recreation	32	14,460	2	33	14,045	1
Oil, gas and pipelines	701	13,349	1	417	12,840	1
Transportation services	160	12,118	1	176	12,029	1
Commercial services	51	10,378	1	48	10,591	1
Agribusiness	57	7,360	1	46	7,996	1
Government and education	2	6,410	1	3	6,160	1
Utilities	247	5,587	1	6	5,756	1
Other (2)	41	20,167	1	27	20,228	2
Total	\$ 2,062	368,256	39%	\$ 1,576	\$ 369,895	39%

(1) Industry categories are based on the North American Industry Classification System and the amounts include foreign loans. The industry categories were updated in first quarter 2019 to align with industry groupings that our regulators use to monitor industry concentration risks. The amounts for December 31, 2018, have been reclassified to conform with the current period presentation.

(2) No other single industry had total loans in excess of \$4.7 billion and \$4.5 billion at March 31, 2019 and December 31, 2018, respectively.

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 segmented among special mention, substandard, doubtful and loss categories. The CRE portfolio, which included \$8.2 billion of foreign CRE loans, totaled \$144.0 billion, or 15% of total loans, at March 31, 2019, and consisted of \$122.1 billion of mortgage loans and \$21.9 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, Florida and Texas, which combined represented 50% of the total CRE portfolio. By property type, the largest concentrations are office buildings at 27% and apartments at 17% of the portfolio. CRE nonaccrual loans totaled 0.5% of the CRE outstanding balance at March 31, 2019, compared with 0.4% at December 31, 2018. At March 31, 2019, we had \$4.8 billion of criticized CRE mortgage loans, compared with \$4.5 billion at December 31, 2018, and \$245 million of criticized CRE construction loans, compared with \$289 million at December 31, 2018.

Table 13: CRE Loans by State and Property Type

(in millions)	March 31, 2019							% of total loans
	Real estate mortgage		Real estate construction		Total			
	Nonaccrual loans	Total portfolio	Nonaccrual loans	Total portfolio	Nonaccrual loans	Total portfolio		
By state:								
California	\$ 140	33,978	8	4,601	148	38,579		4%
New York	24	11,559	1	2,593	25	14,152		1
Florida	28	8,209	3	1,746	31	9,955		1
Texas	67	7,859	4	1,518	71	9,377		1
North Carolina	24	3,706	5	859	29	4,565		*
Arizona	44	4,180	—	273	44	4,453		*
Washington	21	3,402	—	632	21	4,034		*
Georgia	12	3,401	—	564	12	3,965		*
Virginia	8	2,733	—	1,003	8	3,736		*
Colorado	10	2,889	—	457	10	3,346		*
Other	321	40,197	15	7,611	336	47,808	(1)	5
Total	\$ 699	122,113	36	21,857	735	143,970		15%
By property:								
Office buildings	\$ 180	35,510	4	3,155	184	38,665		4%
Apartments	14	16,535	—	7,248	14	23,783		2
Industrial/warehouse	89	15,358	2	1,281	91	16,639		2
Retail (excluding shopping center)	103	14,549	8	508	111	15,057		2
Shopping center	85	11,037	—	1,251	85	12,288		1
Hotel/motel	20	9,998	—	1,554	20	11,552		1
Mixed use properties (2)	83	6,365	2	377	85	6,742		1
Institutional	48	3,607	—	1,858	48	5,465		1
Agriculture	48	2,411	—	9	48	2,420		*
Collateral pool	—	2,300	—	4	—	2,304		*
Other	29	4,443	20	4,612	49	9,055		1
Total	\$ 699	122,113	36	21,857	735	143,970		15%

* Less than 1%.

(1) Includes 40 states; no state had loans in excess of \$3.4 billion.

(2) Mixed use properties are primarily owner occupied real estate, including data centers, flexible space leased to multiple tenants, light manufacturing and other specialized uses.

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 March 31, 2019, foreign loans totaled \$72.9 billion, representing approximately 8% of our total consolidated loans outstanding, compared with \$71.9 billion, or approximately 8% of total consolidated loans outstanding, at December 31, 2018. Foreign loans were approximately 4% of our consolidated total assets at both March 31, 2019 and at December 31, 2018.

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 March 31, 2019, was the United Kingdom, which totaled \$28.4 billion, or approximately 2% of our total assets, and included \$3.5 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, and the negotiation process leading to its departure has been extended to October 31, 2019. We continue to implement plans for Brexit. Our primary goal is to continue to serve our existing clients in the United Kingdom and the European Union as well as to continue to meet the needs of our domestic clients as they do business in the United Kingdom and the European Union. We have an existing authorized bank in Ireland and an asset management entity in Luxembourg. We are also in the process of obtaining regulatory approvals to establish a broker dealer in France. We plan to leverage these entities in order to continue to serve clients in the European Union. In addition, we are implementing actions where possible to mitigate the impact of Brexit on our supplier contracts, staffing and business operations in the European Union. For additional information on risks associated with Brexit, see the "Risk Factors" section in our 2018 Form 10-K.

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.

Table 14: Select Country Exposures

(in millions)	March 31, 2019								
	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	\$ 3,460	23,132	—	1,592	2	224	3,462	24,948	28,410
Canada	32	17,288	(24)	225	—	158	8	17,671	17,679
Cayman Islands	—	6,382	—	7	—	195	—	6,584	6,584
Ireland	49	4,384	—	241	—	153	49	4,778	4,827
Germany	1,830	1,929	(1)	36	—	275	1,829	2,240	4,069
Bermuda	—	3,691	—	76	—	44	—	3,811	3,811
Netherlands	—	3,051	57	307	—	18	57	3,376	3,433
Guernsey	—	2,533	—	—	—	—	—	2,533	2,533
Luxembourg	—	1,855	—	604	—	33	—	2,492	2,492
China	—	2,442	(2)	(214)	46	15	44	2,243	2,287
India	—	1,940	—	142	—	—	—	2,082	2,082
Brazil	—	2,008	1	—	—	—	1	2,008	2,009
Chile	1	1,754	—	(3)	—	62	1	1,813	1,814
France	—	1,583	—	49	1	2	1	1,634	1,635
Japan	530	1,091	3	(60)	—	32	533	1,063	1,596
Australia	—	1,422	—	71	—	6	—	1,499	1,499
South Korea	—	1,210	(8)	86	1	7	(7)	1,303	1,296
United Arab Emirates	—	1,259	—	—	—	—	—	1,259	1,259
Mexico	—	1,201	(1)	6	—	4	(1)	1,211	1,210
Switzerland	—	1,157	—	(36)	—	21	—	1,142	1,142
Total top 20 country exposures	\$ 5,902	81,312	25	3,129	50	1,249	5,977	85,690	91,667
Eurozone exposure:									
Eurozone countries included in Top 20 above (5)	\$ 1,879	12,802	56	1,237	1	481	1,936	14,520	16,456
Spain	—	394	—	13	—	1	—	408	408
Belgium	—	332	—	(75)	—	2	—	259	259
Austria	—	225	—	(1)	—	—	—	224	224
Other Eurozone exposure (6)	22	208	—	59	—	—	22	267	289
Total Eurozone exposure	\$ 1,901	13,961	56	1,233	1	484	1,958	15,678	17,636

- (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.
- (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. 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 March 31, 2019, the gross notional amount of our CDS sold that reference assets in the Top 20 or Eurozone countries that contain non-sovereign debt was \$366 million, which was offset by the notional amount of CDS purchased of \$511 million. On a net basis 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 \$42.8 billion exposure to financial institutions and \$44.0 billion to non-financial corporations at March 31, 2019.
- (5) Consists of exposure to Ireland, Germany, Netherlands, Luxembourg and France included in Top 20.
- (6) Includes non-sovereign exposure to Italy, Portugal, and Greece in the amount of \$139 million, \$18 million and \$6 million, respectively. We had no sovereign exposure in these countries at March 31, 2019.

Risk Management - Credit Risk Management (continued)

REAL ESTATE 1-4 FAMILY FIRST AND JUNIOR LIEN

MORTGAGE LOANS Our real estate 1-4 family first and junior lien mortgage loans are presented in Table 15.

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

(in millions)	March 31, 2019		December 31, 2018	
	Balance	% of portfolio	Balance	% of portfolio
Real estate 1-4 family first mortgage	\$ 284,545	90%	\$ 285,065	89%
Real estate 1-4 family junior lien mortgage	33,099	10	34,398	11
Total real estate 1-4 family mortgage loans	\$ 317,644	100%	\$ 319,463	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 3% and 4% of total loans at March 31, 2019, and December 31, 2018, 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. For more information, 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.

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 2018 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 first quarter 2019 on the non-PCI mortgage portfolio. Loans 30 days or more delinquent at March 31, 2019, totaled \$3.8 billion, or 1% of total non-PCI mortgages, compared with \$4.0 billion, or 1%, at December 31, 2018. Loans with FICO scores lower than 640 totaled \$9.3 billion, or 3% of total non-PCI mortgages at March 31, 2019, compared with \$9.7 billion, or 3%, at December 31, 2018. Mortgages with a LTV/CLTV greater than 100% totaled \$3.7 billion at March 31, 2019, or 1% of total non-PCI mortgages, compared with \$3.9 billion, or 1%, at December 31, 2018. Information regarding credit quality indicators can be found in Note 6 (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 non-PCI mortgage loans to borrowers in California represented 13% of total loans at March 31, 2019, located predominantly 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 first and junior lien mortgage portfolios as part of our credit risk management process. Our underwriting and periodic review of loans and lines 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 6 (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 2018 Form 10-K.

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

(in millions)	March 31, 2019			
	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	\$ 110,551	9,042	119,593	13%
New York	29,251	1,647	30,898	3
New Jersey	13,828	3,039	16,867	2
Florida	12,212	2,992	15,204	1
Washington	9,946	739	10,685	1
Virginia	8,489	1,930	10,419	1
Texas	8,556	638	9,194	1
North Carolina	5,869	1,539	7,408	1
Pennsylvania	5,372	1,855	7,227	1
Other (1)	65,096	9,662	74,758	8
Government insured/guaranteed loans (2)	12,191	—	12,191	1
Real estate 1-4 family loans (excluding PCI)	281,361	33,083	314,444	33
Real estate 1-4 family PCI loans	3,184	16	3,200	—
Total	\$ 284,545	33,099	317,644	33%

(1) Consists of 41 states; no state had loans in excess of \$6.8 billion.

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

First Lien Mortgage Portfolio Our total real estate 1-4 family first lien mortgage portfolio decreased \$520 million in first quarter 2019, as paydowns and Pick-a-Pay PCI loan sales of \$1.6 billion were partially offset by growth in nonconforming mortgage loans. In addition, \$776 million of nonconforming mortgage loan originations that would have otherwise been included in this portfolio, were designated as held for sale in first quarter 2019 in anticipation of the future issuance of residential mortgage-backed securities. We retained \$10.5 billion in nonconforming originations, consisting of loans that exceed conventional conforming loan amount limits established by federal government-sponsored entities (GSEs) in first quarter 2019.

The credit performance associated with our real estate 1-4 family first lien mortgage portfolio was stable in first quarter

2019, 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 was a net recovery of 0.02% in first quarter 2019, compared with a net recovery of 0.03% for the same period a year ago. Nonaccrual loans were \$3.0 billion at March 31, 2019, down \$157 million from December 31, 2018. The decrease in nonaccrual loans from December 31, 2018, was driven by nonaccrual loan sales and an improving housing environment.

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				
	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
California	\$ 110,551	109,092	0.63%	0.68	(0.03)	(0.04)	(0.05)	(0.07)	(0.07)
New York	29,251	28,954	1.11	1.12	0.02	0.02	0.04	0.09	(0.01)
New Jersey	13,828	13,811	1.75	1.91	0.08	0.05	(0.02)	0.02	0.08
Florida	12,212	12,350	2.50	2.58	(0.10)	(0.18)	(0.22)	(0.15)	(0.14)
Washington	9,946	9,677	0.49	0.57	(0.04)	(0.06)	(0.06)	(0.06)	(0.06)
Other	93,382	93,261	1.57	1.70	(0.02)	(0.03)	(0.03)	(0.03)	0.01
Total	269,170	267,145	1.15	1.23	(0.02)	(0.03)	(0.04)	(0.04)	(0.03)
Government insured/guaranteed loans	12,191	12,932							
PCI	3,184	4,988							
Total first lien mortgages	\$ 284,545	285,065							

Risk Management - Credit Risk Management (continued)

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 is included in the consumer real estate 1-4 family first mortgage class of loans throughout this

Report. Pick-a-Pay option payment loans may have fixed or adjustable rates with payment options that include a minimum payment, an interest-only payment or fully amortizing payment (both 15 and 30 year options). Table 18 provides balances by types of loans as of March 31, 2019.

Table 18: Pick-a-Pay Portfolio

(in millions)	March 31, 2019		December 31, 2018	
	Adjusted unpaid principal balance (1)	% of total	Adjusted unpaid principal balance (1)	% of total
Option payment loans	\$ 8,084	54%	\$ 8,813	50%
Non-option payment adjustable-rate and fixed-rate loans	2,626	18	2,848	16
Full-term loan modifications	4,126	28	6,080	34
Total adjusted unpaid principal balance	\$ 14,836	100%	\$ 17,741	100%
Total carrying value	\$ 13,834		16,115	

(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.

The predominant portion of our remaining PCI loans is included in the Pick-a-Pay portfolio. Total carrying value of Pick-a-Pay PCI loans was \$3.1 billion at March 31, 2019, compared with \$4.9 billion at December 31, 2018. During first quarter 2019, we sold \$1.6 billion of Pick-a-Pay PCI loans that resulted in a gain of \$608 million. We also expect to close on the sale of approximately \$2.0 billion of Pick-a-Pay PCI loans in second quarter 2019. The accretable yield balance of our Pick-a-Pay PCI loan portfolio was \$1.5 billion (\$1.7 billion for all PCI loans) at March 31, 2019, compared with \$2.8 billion (\$3.0 billion for all PCI loans) at December 31, 2018. The estimated weighted-average life was approximately 5.3 years and 5.5 years at March 31, 2019 and December 31, 2018, respectively. The accretable yield percentage for Pick-a-Pay PCI loans for first quarter 2019 was 11.49%, and we expect the percentage to increase to approximately 11.56% for second quarter 2019.

For additional information on PCI loans, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 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 first 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 considers the inherent loss where the borrower is delinquent on the corresponding first lien mortgage loans.

Table 19 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, 2018, predominantly reflects loan paydowns. As of March 31, 2019, 6% 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%, 2.76% 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 2% of the junior lien mortgage portfolio at March 31, 2019. For additional information on consumer loans by LTV/CLTV, see Table 6.12 in Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 19: Junior Lien Mortgage Portfolio Performance

(in millions)	Outstanding balance		% of loans 30 days or more past due		Loss (recovery) rate (annualized) quarter ended				
	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
California	\$ 9,042	9,338	1.74%	1.67	(0.39)	(0.33)	(0.51)	(0.56)	(0.42)
New Jersey	3,039	3,152	2.59	2.57	0.12	0.03	0.24	0.28	0.44
Florida	2,992	3,140	2.80	2.73	(0.05)	0.07	0.12	(0.05)	(0.12)
Virginia	1,930	2,020	1.96	1.91	0.14	0.04	0.16	0.30	0.25
Pennsylvania	1,855	1,929	2.18	2.10	0.04	0.25	0.18	0.13	0.06
Other	14,225	14,802	2.04	2.12	(0.03)	(0.11)	(0.05)	(0.06)	(0.05)
Total	33,083	34,381	2.08	2.08	(0.10)	(0.11)	(0.10)	(0.13)	(0.09)
PCI	16	17							
Total junior lien mortgages	\$ 33,099	34,398							

Risk Management - Credit Risk Management (continued)

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 first and junior lien lines of credit portfolios. In March 2019, approximately 43% of these borrowers paid only the minimum amount due and approximately 52% 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 29% paid only the minimum amount due and approximately 65% 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 20 reflects the outstanding balance of our portfolio of junior lien mortgages, including lines and loans, and first 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 \$105 million, because they are predominantly insured by the FHA, and it excludes PCI loans, which total \$32 million, because their losses were generally reflected in our nonaccretable difference established at the date of acquisition.

Table 20: Junior Lien Mortgage Line and Loan and First Lien Mortgage Line Portfolios Payment Schedule

(in millions)	Outstanding balance March 31, 2019	Scheduled end of draw / term						Amortizing (3)
		Remainder of 2019	2020	2021	2022	2023	2024 and thereafter (1)	
Junior lien lines and loans	\$ 33,083	295	450	1,039	3,788	2,622	14,030	10,859
First lien lines	11,376	103	180	488	1,821	1,369	5,472	1,943
Total (2)	\$ 44,459	398	630	1,527	5,609	3,991	19,502	12,802
% of portfolios	100%	1	1	3	13	9	44	29
End-of-term balloon payments included in Total	\$ 877	130	206	343	163	7	28	

- (1) Substantially all lines and loans are scheduled to convert to amortizing loans by the end of 2028, with annual scheduled amounts through 2028 ranging from \$2.2 billion to \$5.5 billion and averaging \$3.8 billion per year.
- (2) Junior and first lien lines are primarily interest-only during their draw period. The unfunded credit commitments for junior and first lien lines totaled \$60.2 billion at March 31, 2019.
- (3) Amortizing lines and loans include \$52 million of end-of-term balloon payments, which are past due. At March 31, 2019, \$456 million, or 4% of outstanding lines of credit that are amortizing, are 30 days or more past due compared to \$537 million, or 2%, for lines in their draw period.

CREDIT CARDS Our credit card portfolio totaled \$38.3 billion at March 31, 2019, which represented 4% of our total outstanding loans. The net charge-off rate (annualized) for our credit card portfolio was 3.73% for first quarter 2019, compared with 3.69% for first quarter 2018.

AUTOMOBILE Our automobile portfolio, predominantly composed of indirect loans, totaled \$44.9 billion at March 31, 2019. The net charge-off rate (annualized) for our automobile portfolio was 0.82% for first quarter 2019, compared with 1.64% for first quarter 2018. The decrease in the net charge-off rate in first quarter 2019, compared with the same period in 2018, was driven by lower early losses from higher quality originations.

OTHER REVOLVING CREDIT AND INSTALLMENT Other revolving credit and installment loans totaled \$35.2 billion at March 31, 2019, and primarily included student and securities-based loans. Our private student loan portfolio totaled \$11.1 billion at March 31, 2019. The net charge-off rate (annualized) for other revolving credit and installment loans was 1.47% for first quarter 2019, compared with 1.60% for first quarter 2018.

NONPERFORMING ASSETS (NONACCRUAL LOANS AND FORECLOSED ASSETS) Table 21 summarizes nonperforming assets (NPAs) for each of the last four quarters. Total NPAs increased \$394 million from fourth quarter 2018 to \$7.3 billion. Nonaccrual loans increased \$409 million from fourth quarter 2018 to \$6.9 billion, reflecting higher commercial nonaccruals predominantly in the oil, gas and pipelines, and utilities portfolios. Foreclosed assets of \$436 million were down

\$15 million from fourth quarter 2018. For information about when we generally place loans on nonaccrual status, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 Form 10-K. Credit card loans are not placed on nonaccrual status, but are generally fully charged off when the loan reaches 180 days past due.

Table 21: Nonperforming Assets (Nonaccrual Loans and Foreclosed Assets)

(\$ in millions)	March 31, 2019		December 31, 2018		September 30, 2018		June 30, 2018	
	Balance	% of total loans	Balance	% of total loans	Balance	% of total loans	Balance	% of total loans
Nonaccrual loans:								
Commercial:								
Commercial and industrial	\$ 1,986	0.57%	\$ 1,486	0.42%	\$ 1,555	0.46%	\$ 1,559	0.46%
Real estate mortgage	699	0.57	580	0.48	603	0.50	765	0.62
Real estate construction	36	0.16	32	0.14	44	0.19	51	0.22
Lease financing	76	0.40	90	0.46	96	0.49	80	0.41
Total commercial	2,797	0.55	2,188	0.43	2,298	0.46	2,455	0.49
Consumer:								
Real estate 1-4 family first mortgage	3,026	1.06	3,183	1.12	3,267	1.15	3,469	1.23
Real estate 1-4 family junior lien mortgage	916	2.77	945	2.75	983	2.78	1,029	2.82
Automobile	116	0.26	130	0.29	118	0.26	119	0.25
Other revolving credit and installment	50	0.14	50	0.14	48	0.13	54	0.14
Total consumer	4,108	0.94	4,308	0.98	4,416	1.00	4,671	1.06
Total nonaccrual loans (1)(2)(3)	6,905	0.73	6,496	0.68	6,714	0.71	7,126	0.75
Foreclosed assets:								
Government insured/guaranteed (4)	75		88		87		90	
Non-government insured/guaranteed	361		363		435		409	
Total foreclosed assets	436		451		522		499	
Total nonperforming assets	\$ 7,341	0.77%	\$ 6,947	0.73%	\$ 7,236	0.77%	\$ 7,625	0.81%
Change in NPAs from prior quarter	\$ 394		(289)		(389)		(285)	

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

(2) Real estate 1-4 family mortgage loans predominantly insured by the FHA or guaranteed by the VA are not placed on nonaccrual status because they are insured or guaranteed.

(3) See Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for further information on impaired loans.

(4) 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 classification of certain government-guaranteed mortgage loans upon foreclosure, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 Form 10-K.

Risk Management - Credit Risk Management (continued)

Table 22 provides an analysis of the changes in nonaccrual loans.

Table 22: Analysis of Changes in Nonaccrual Loans

(in millions)	Quarter ended				
	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Commercial nonaccrual loans					
Balance, beginning of period	\$ 2,188	2,298	2,455	2,409	2,640
Inflows	1,238	662	774	726	605
Outflows:					
Returned to accruing	(43)	(45)	(122)	(43)	(113)
Foreclosures	(15)	(12)	—	—	—
Charge-offs	(158)	(193)	(191)	(133)	(119)
Payments, sales and other	(413)	(522)	(618)	(504)	(604)
Total outflows	(629)	(772)	(931)	(680)	(836)
Balance, end of period	2,797	2,188	2,298	2,455	2,409
Consumer nonaccrual loans					
Balance, beginning of period	4,308	4,416	4,671	4,930	5,006
Inflows	552	569	572	578	714
Outflows:					
Returned to accruing	(248)	(269)	(319)	(342)	(374)
Foreclosures	(42)	(35)	(41)	(40)	(50)
Charge-offs	(49)	(57)	(65)	(84)	(86)
Payments, sales and other	(413)	(316)	(402)	(371)	(280)
Total outflows	(752)	(677)	(827)	(837)	(790)
Balance, end of period	4,108	4,308	4,416	4,671	4,930
Total nonaccrual loans	\$ 6,905	6,496	6,714	7,126	7,339

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.

While nonaccrual loans are not free of loss content, we believe exposure to loss is significantly mitigated by the following factors at March 31, 2019:

- over 87% of total commercial nonaccrual loans and 99% of total consumer nonaccrual loans are secured. Of the consumer nonaccrual loans, 96% are secured by real estate and 87% have a combined LTV (CLTV) ratio of 80% or less.
- losses of \$304 million and \$1.4 billion have already been recognized on 15% of commercial nonaccrual loans and 44% of consumer nonaccrual loans, respectively, in accordance with our charge-off policies. Once we write down loans to the net realizable value (fair value of collateral less estimated costs to sell), we re-evaluate each loan regularly and record additional write-downs if needed.
- 75% of commercial nonaccrual loans were current on interest and 68% were current on both principal and 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.
- of \$1.8 billion of consumer loans in bankruptcy or discharged in bankruptcy, and classified as nonaccrual, \$1.3 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 our proprietary modification 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.

Table 23 provides a summary of foreclosed assets and an analysis of changes in foreclosed assets.

Table 23: Foreclosed Assets

(in millions)	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Summary by loan segment					
Government insured/guaranteed	\$ 75	88	87	90	103
Commercial	124	127	201	176	221
Consumer	237	236	234	233	247
Total foreclosed assets	\$ 436	451	522	499	571
Analysis of changes in foreclosed assets					
Balance, beginning of period	\$ 451	522	499	571	642
Net change in government insured/guaranteed (1)	(13)	1	(3)	(13)	(17)
Additions to foreclosed assets (2)	193	193	209	191	185
Reductions:					
Sales	(205)	(274)	(181)	(257)	(245)
Write-downs and gains (losses) on sales	10	9	(2)	7	6
Total reductions	(195)	(265)	(183)	(250)	(239)
Balance, end of period	\$ 436	451	522	499	571

- (1) 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 MLHFS, and outflows when we are reimbursed by FHA/VA.
- (2) Includes loans moved into foreclosed assets from nonaccrual status, PCI loans transitioned directly to foreclosed assets and repossessed automobiles.

Foreclosed assets at March 31, 2019, included \$304 million of foreclosed residential real estate, of which 25% is predominantly FHA insured or VA guaranteed and expected to have minimal or no loss content. The remaining amount of foreclosed assets has been written down to estimated net realizable value. Of the \$436 million in foreclosed assets at March 31, 2019, 69% have been in the foreclosed assets portfolio one year or less.

Risk Management - Credit Risk Management (continued)

TROUBLED DEBT RESTRUCTURINGS (TDRs)

Table 24: Troubled Debt Restructurings (TDRs)

(in millions)	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Commercial:					
Commercial and industrial	\$ 1,740	1,623	1,837	1,792	1,703
Real estate mortgage	681	704	782	904	939
Real estate construction	45	39	49	40	45
Lease financing	46	56	65	50	53
Total commercial TDRs	2,512	2,422	2,733	2,786	2,740
Consumer:					
Real estate 1-4 family first mortgage	10,343	10,629	10,967	11,387	11,782
Real estate 1-4 family junior lien mortgage	1,604	1,639	1,689	1,735	1,794
Credit Card	473	449	431	410	386
Automobile	85	89	91	81	83
Other revolving credit and installment	156	154	146	141	137
Trial modifications	136	149	163	200	198
Total consumer TDRs	12,797	13,109	13,487	13,954	14,380
Total TDRs	\$ 15,309	15,531	16,220	16,740	17,120
TDRs on nonaccrual status	\$ 4,037	4,058	4,298	4,454	4,428
TDRs on accrual status:					
Government insured/guaranteed	1,275	1,299	1,308	1,368	1,375
Non-government insured/guaranteed	9,997	10,174	10,614	10,918	11,317
Total TDRs	\$ 15,309	15,531	16,220	16,740	17,120

Table 24 provides information regarding the recorded investment of loans modified in TDRs. The allowance for loan losses for TDRs was \$1.2 billion at both March 31, 2019, and December 31, 2018. See Note 6 (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. 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 2018 Form 10-K.

Table 25 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 new loans.

Table 25: Analysis of Changes in TDRs

(in millions)	Quarter ended				
	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Commercial TDRs					
Balance, beginning of quarter	\$ 2,422	2,733	2,786	2,740	3,076
Inflows (1)(2)	539	374	588	481	321
Outflows					
Charge-offs	(44)	(88)	(92)	(41)	(63)
Foreclosures	—	(2)	(13)	—	—
Payments, sales and other (2)(3)	(405)	(595)	(536)	(394)	(594)
Balance, end of quarter	2,512	2,422	2,733	2,786	2,740
Consumer TDRs					
Balance, beginning of quarter	13,109	13,487	13,954	14,380	14,692
Inflows (1)	439	379	414	467	487
Outflows					
Charge-offs	(60)	(57)	(56)	(56)	(54)
Foreclosures	(86)	(90)	(116)	(133)	(131)
Payments, sales and other (3)	(593)	(595)	(672)	(706)	(618)
Net change in trial modifications (4)	(12)	(15)	(37)	2	4
Balance, end of quarter	12,797	13,109	13,487	13,954	14,380
Total TDRs	\$ 15,309	15,531	16,220	16,740	17,120

- (1) Inflows include loans that modify, even if they resolve within the period, as well as gross advances on term loans that modified in a prior period and net advances on revolving commercial TDRs that modified in a prior period.
- (2) Information for the quarter ended June 30, 2018 has been revised to offset payments and advances (i.e. inflows) on revolving commercial TDRs, for consistent presentation of this activity for all periods.
- (3) Other outflows consist of normal amortization/accretion of loan basis adjustments and loans transferred to held-for-sale. Occasionally, loans that have been refinanced or restructured at market terms qualify as new loans, which are also included as other outflows.
- (4) 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.

Risk Management - Credit Risk Management (continued)

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 March 31, 2019, were down \$105 million, or 11%, from December 31, 2018, due to payoffs and

overall 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 \$7.0 billion at March 31, 2019, down from \$7.7 billion at December 31, 2018, due to an improvement in delinquencies as well as a reduction in the portfolio.

Table 26 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 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 26: Loans 90 Days or More Past Due and Still Accruing

(in millions)	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Total (excluding PCI (1)):	\$ 7,870	8,704	8,838	9,087	10,351
Less: FHA insured/VA guaranteed (2)	6,996	7,725	7,906	8,246	9,385
Total, not government insured/guaranteed	\$ 874	979	932	841	966
By segment and class, not government insured/guaranteed:					
Commercial:					
Commercial and industrial	\$ 42	43	42	23	40
Real estate mortgage	20	51	56	26	23
Real estate construction	5	—	—	—	1
Total commercial	67	94	98	49	64
Consumer:					
Real estate 1-4 family first mortgage	117	124	128	132	163
Real estate 1-4 family junior lien mortgage	28	32	32	33	48
Credit card	502	513	460	429	473
Automobile	68	114	108	105	113
Other revolving credit and installment	92	102	106	93	105
Total consumer	807	885	834	792	902
Total, not government insured/guaranteed	\$ 874	979	932	841	966

(1) PCI loans totaled \$243 million, \$370 million, \$567 million, \$811 million, and \$1.0 billion at March 31, 2019, and December 31, September 30, June 30, and March 31, 2018, respectively.

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

NET CHARGE-OFFS

Table 27: Net Charge-offs

(\$ in millions)	Quarter ended									
	Mar 31, 2019		Dec 31, 2018		Sep 30, 2018		Jun 30, 2018		Mar 31, 2018	
	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	\$ 133	0.15%	\$ 132	0.15%	\$ 148	0.18%	\$ 58	0.07%	\$ 85	0.10%
Real estate mortgage	6	0.02	(12)	(0.04)	(1)	—	—	—	(15)	(0.05)
Real estate construction	(2)	(0.04)	(1)	(0.01)	(2)	(0.04)	(6)	(0.09)	(4)	(0.07)
Lease financing	8	0.17	13	0.26	7	0.14	15	0.32	12	0.25
Total commercial	145	0.11	132	0.10	152	0.12	67	0.05	78	0.06
Consumer:										
Real estate 1-4 family first mortgage	(12)	(0.02)	(22)	(0.03)	(25)	(0.04)	(23)	(0.03)	(18)	(0.03)
Real estate 1-4 family junior lien mortgage	(9)	(0.10)	(10)	(0.11)	(9)	(0.10)	(13)	(0.13)	(8)	(0.09)
Credit card	352	3.73	338	3.54	299	3.22	323	3.61	332	3.69
Automobile	91	0.82	133	1.16	130	1.10	113	0.93	208	1.64
Other revolving credit and installment	128	1.47	150	1.64	133	1.44	135	1.44	149	1.60
Total consumer	550	0.51	589	0.53	528	0.47	535	0.49	663	0.60
Total	\$ 695	0.30%	\$ 721	0.30%	\$ 680	0.29%	\$ 602	0.26%	\$ 741	0.32%

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

Table 27 presents net charge-offs for first quarter 2019 and the previous four quarters. Net charge-offs in first quarter 2019 were \$695 million (0.30% of average total loans outstanding), compared with \$741 million (0.32%) in first quarter 2018.

The increase in commercial net charge-offs from first quarter 2018 was due to higher commercial and industrial loan charge-offs and lower recoveries in the commercial and industrial portfolio. Consumer net charge-offs decreased from the prior year predominantly due to a decrease in automobile net charge-offs, partially offset by an increase in credit card 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 6 (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 2018 Form 10-K and Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 28 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.

Risk Management - Credit Risk Management (continued)

Table 28: Allocation of the Allowance for Credit Losses (ACL)

(in millions)	Mar 31, 2019		Dec 31, 2018		Dec 31, 2017		Dec 31, 2016		Dec 31, 2015	
	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	\$ 3,650	37%	\$ 3,628	37%	\$ 3,752	35%	\$ 4,560	34%	\$ 4,231	33%
Real estate mortgage	1,307	13	1,282	13	1,374	13	1,320	14	1,264	13
Real estate construction	1,165	2	1,200	2	1,238	3	1,294	2	1,210	3
Lease financing	306	2	307	2	268	2	220	2	167	1
Total commercial	6,428	54	6,417	54	6,632	53	7,394	52	6,872	50
Consumer:										
Real estate 1-4 family first mortgage	780	30	750	30	1,085	30	1,270	29	1,895	30
Real estate 1-4 family junior lien mortgage	317	3	431	3	608	4	815	5	1,223	6
Credit card	2,201	4	2,064	4	1,944	4	1,605	4	1,412	4
Automobile	514	5	475	5	1,039	5	817	6	529	6
Other revolving credit and installment	581	4	570	4	652	4	639	4	581	4
Total consumer	4,393	46	4,290	46	5,328	47	5,146	48	5,640	50
Total	\$ 10,821	100%	\$ 10,707	100%	\$ 11,960	100%	\$ 12,540	100%	\$ 12,512	100%
Components:										
Allowance for loan losses	\$ 9,900		9,775		11,004		11,419		11,545	
Allowance for unfunded credit commitments	921		932		956		1,121		967	
Allowance for credit losses	\$ 10,821		10,707		11,960		12,540		12,512	
Allowance for loan losses as a percentage of total loans	1.04%		1.03		1.15		1.18		1.26	
Allowance for loan losses as a percentage of total net charge-offs (1)	351		356		376		324		399	
Allowance for credit losses as a percentage of total loans	1.14		1.12		1.25		1.30		1.37	
Allowance for credit losses as a percentage of total nonaccrual loans	157		165		156		126		115	

(1) Total net charge-offs are annualized for quarter ended March 31, 2019.

In addition to the allowance for credit losses, there was \$518 million at March 31, 2019, and \$480 million at December 31, 2018, of nonaccretable difference to absorb losses on PCI loans of \$3.2 billion at March 31, 2019 and \$5.0 billion at December 31, 2018. 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. For additional information on PCI loans, see the “Risk Management – Credit Risk Management – Purchased Credit-Impaired Loans” section and Note 6 (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.

The allowance for credit losses increased \$114 million, or 1%, from December 31, 2018, primarily due to a higher probability of slightly less favorable economic conditions. Total provision for credit losses was \$845 million in first quarter 2019, compared with \$191 million in first quarter 2018. The increase in the provision for credit losses of \$654 million was due to an

allowance increase in first quarter 2019, reflecting a higher probability of slightly less favorable economic conditions, compared with an allowance decrease in first quarter 2018, predominantly due to improvement in our outlook for 2017 hurricane-related losses.

We believe the allowance for credit losses of \$10.8 billion at March 31, 2019, was appropriate to cover credit losses inherent in the loan portfolio, including unfunded credit commitments, at that date. 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 2018 Form 10-K.

LIABILITY FOR MORTGAGE LOAN REPURCHASE LOSSES

For information on our repurchase liability, see the “Risk Management – Credit Risk Management – Liability For Mortgage Loan Repurchase Losses” section in our 2018 Form 10-K.

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 could become subject to consent orders and settlement agreements with federal and state regulators for alleged servicing issues and practices. In general, these can require us to provide customers with loan modification relief, refinancing relief, and foreclosure prevention and assistance, as well as can impose certain monetary penalties on us.

For additional information about the risks related to our servicing activities, see the “Risk Management – Credit Risk Management – Risks Relating to Servicing Activities” section in our 2018 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 market risk 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 rising, earnings will initially increase);
- assets and liabilities may reprice at the same time but by different amounts (for example, when the general level of interest rates is rising, we may increase rates paid on checking and savings deposit accounts by an amount that is less than the general rise 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 increase sharply, MBS held in the debt securities portfolio may pay down slower than anticipated, which could impact 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 debt 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.

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 29, 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 29:

- 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 interest rate scenarios, customer activity that shifts balances into higher-yielding products could reduce expected net interest income.
- We hold the size of the projected debt and equity securities portfolios constant across scenarios.

Table 29: 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	\$	(1.2) - (0.7)	1.0 - 1.5	0.8 - 1.3	
<i>Key Rates at Horizon End</i>					
Fed Funds Target	2.75 %	1.75	3.75	4.75	
10-year CMT (1)	3.02	2.02	4.02	5.02	
Second Year of Forecasting Horizon					
Net Interest Income Sensitivity to Base Scenario	\$	(2.9) - (2.4)	1.4 - 1.9	2.1 - 2.6	
<i>Key Rates at Horizon End</i>					
Fed Funds Target	2.75 %	1.75	3.75	4.75	
10-year CMT (1)	3.28	2.28	4.28	5.28	

(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.

Interest rate sensitive noninterest income also results from changes in earnings credit for non-interest bearing deposits that reduce treasury management deposit service fees. Furthermore, for the trading portfolio, interest rate changes may result in net interest income compression (generally as interest rates rise) or expansion (generally as interest rates fall) that does not reflect the offsetting effects of certain economic hedges. Instead, as a result of GAAP requirements, the effects of such economic hedges are recorded in noninterest income.

We use the debt securities portfolio and exchange-traded and over-the-counter (OTC) interest rate derivatives to hedge our interest rate exposures. See the “Balance Sheet Analysis – Available-for-Sale and Held-to-Maturity Debt Securities” section in this Report for more information on the use of the available-for-sale and held-to-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 March 31, 2019, and December 31, 2018, are presented in Note 15 (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 2018 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 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 interest rates decreases, the overall level of hedges changes as interest rates change, 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 \$14.8 billion at March 31, 2019, and \$16.1 billion at December 31, 2018. The weighted-average note rate on our portfolio of loans serviced for others was 4.34% at March 31, 2019, and 4.32% at December 31, 2018. The carrying value of our total MSRs represented 0.88% of mortgage loans serviced for others at March 31, 2019, and 0.94% of mortgage loans serviced for others at December 31, 2018.

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 and commodity prices, and the risk of possible loss due to counterparty risk. This includes implied volatility risk, basis risk, and market liquidity risk. Market risk also includes counterparty credit risk, price risk in the trading book, mortgage servicing rights and the associated hedge effectiveness risk associated with the mortgage book, and impairment on private equity investments.

The Board’s Finance Committee has primary oversight responsibility for market risk and oversees the Company’s market risk exposure and market risk management strategies. In addition, the Board’s Risk Committee has certain oversight responsibilities with respect to market risk, including adjusting the Company’s market risk appetite with input from the Finance Committee. The Finance Committee also reports key market risk matters to the Risk Committee.

At the management level, the Market and Counterparty Risk Management function, which is part of Corporate Risk, has primary oversight responsibility for market risk. The Market and Counterparty Risk Management function reports into the CRO and also provides periodic reporting related to market risk to the Board’s Finance Committee. In addition, the Risk & Control Committee for each business group and enterprise function reports market risk matters to the Enterprise Risk & Control Committee.

MARKET RISK – TRADING ACTIVITIES We engage in trading activities to accommodate the investment and risk management activities of our customers and to execute economic hedging to manage certain balance sheet risks. These trading activities predominantly occur within our Wholesale Banking businesses and to a lesser extent other divisions of the Company. Debt securities held for trading, equity securities held for trading, trading loans and trading derivatives are financial instruments used in our trading activities, and all are carried at fair value. Income earned on the financial instruments used in our trading activities include net interest income, changes in fair value and realized gains and losses. Net interest income earned from our trading activities is reflected in the interest income and interest expense components of our income statement. Changes in fair value of the financial instruments used in our trading activities are reflected in net gains on trading activities, a component of noninterest income in our income statement. For more information on the financial instruments used in our trading activities and the income from these trading activities, see Note 4 (Trading Activities) to Financial Statements in this Report.

Value-at-risk (VaR) is a statistical risk measure used to estimate the potential loss from adverse moves in the financial markets. The Company uses VaR metrics complemented with sensitivity analysis and stress testing in measuring and monitoring market risk. For more information, including information regarding our monitoring activities, sensitivity analysis and stress testing, see the “Risk Management – Asset/Liability Management – Market Risk – Trading Activities” section in our 2018 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 on our balance sheet.

Asset/Liability Management (continued)

Table 30 shows the Company's Trading General VaR by risk category. As presented in Table 30, average Company Trading General VaR was \$15 million for the quarter ended March 31, 2019, compared with \$16 million for the quarter ended December 31, 2018, and \$17 million for the quarter ended

March 31, 2018. The decrease in average Company Trading General VaR for the quarter ended March 31, 2019, compared with the quarter ended March 31, 2018, was mainly driven by changes in portfolio composition.

Table 30: Trading 1-Day 99% General VaR by Risk Category

(in millions)	Quarter ended											
	March 31, 2019				December 31, 2018				March 31, 2018			
	Period end	Average	Low	High	Period end	Average	Low	High	Period end	Average	Low	High
Company Trading General VaR Risk Categories												
Credit	\$ 15	15	11	19	18	16	13	24	14	14	10	18
Interest rate	42	34	22	44	28	20	14	28	15	13	7	21
Equity	5	5	4	7	5	5	2	7	14	13	10	16
Commodity	2	2	1	4	2	2	1	4	1	1	1	1
Foreign exchange	1	1	1	1	1	1	0	2	0	1	0	3
Diversification benefit (1)	(46)	(42)			(33)	(28)			(22)	(25)		
Company Trading General VaR	\$ 19	15			21	16			22	17		

(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.

MARKET RISK – EQUITY SECURITIES We are directly and indirectly affected by changes in the equity markets. We make and manage direct 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 and observable price changes. For nonmarketable equity securities, the analysis is based on facts and circumstances of each individual investment and the expectations for that investment's cash flows, capital needs, the viability of its business model, our exit strategy, and observable price changes that are similar to the investment held. Investments in nonmarketable equity securities include private equity investments accounted for under the equity method, fair value through net income, and the measurement alternative.

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, 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 14 (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 that include investments relating to our venture capital activities. We manage these marketable equity securities within capital risk limits approved by management and the Board and monitored by Corporate ALCO and the Market Risk Committee. The fair value changes in these marketable equity securities are recognized in net income. For more information, see Note 8 (Equity Securities) to Financial Statements in this Report.

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.

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 We are subject to a rule, issued by the FRB, OCC and FDIC, that implemented 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, rules issued by the FRB impose enhanced liquidity management standards on large bank holding companies (BHC) such as Wells Fargo.

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.

Liquidity Coverage Ratio As of March 31, 2019, 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 31 presents the Company's quarterly average values for the daily-calculated LCR and its components calculated pursuant to the LCR rule requirements.

Table 31: Liquidity Coverage Ratio

(in millions, except ratio)	Average for Quarter ended March 31, 2019	
HQLA (1)(2)	\$	358,190
Projected net cash outflows		290,651
LCR		123%

(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 debt securities. These assets make up our primary sources of liquidity which are presented in Table 32. 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. Debt 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 debt securities portfolio. We believe these debt securities provide quick sources of liquidity through sales or by pledging to obtain financing, regardless of market conditions. Some of these debt securities are within the held-to-maturity portion of our debt 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.

Table 32: Primary Sources of Liquidity

(in millions)	March 31, 2019			December 31, 2018		
	Total	Encumbered	Unencumbered	Total	Encumbered	Unencumbered
Interest-earning deposits with banks	\$ 128,318	—	128,318	149,736	—	149,736
Debt securities of U.S. Treasury and federal agencies	59,799	2,160	57,639	57,688	1,504	56,184
Mortgage-backed securities of federal agencies	243,827	30,001	213,826	244,211	35,656	208,555
Total	\$ 431,944	32,161	399,783	451,635	37,160	414,475

In addition to our primary sources of liquidity shown in Table 32, liquidity is also available through the sale or financing of other debt securities including trading and/or available-for-sale debt securities, as well as through the sale, securitization or financing of loans, to the extent such debt securities and loans are not encumbered. In addition, other debt 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 133% of total loans at March 31, 2019, and 135% at December 31, 2018.

Additional funding is provided by long-term debt and short-term borrowings. 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.

Asset/Liability Management (continued)

Table 33 shows selected information for short-term borrowings, which generally mature in less than 30 days.

Table 33: Short-Term Borrowings

(in millions)	Quarter ended				
	Mar 31, 2019	Dec 31, 2018	Sep 30, 2018	Jun 30, 2018	Mar 31, 2018
Balance, period end					
Federal funds purchased and securities sold under agreements to repurchase	\$ 93,896	92,430	92,418	89,307	80,916
Other short-term borrowings	12,701	13,357	13,033	15,189	16,291
Total	\$ 106,597	105,787	105,451	104,496	97,207
Average daily balance for period					
Federal funds purchased and securities sold under agreements to repurchase	\$ 95,721	93,483	92,141	89,138	86,535
Other short-term borrowings	12,930	12,479	13,331	14,657	15,244
Total	\$ 108,651	105,962	105,472	103,795	101,779
Maximum month-end balance for period					
Federal funds purchased and securities sold under agreements to repurchase (1)	\$ 97,650	93,918	92,531	92,103	88,121
Other short-term borrowings (2)	14,129	13,357	14,270	15,272	16,924

(1) Highest month-end balance in each of the last five quarters was in January 2019, and November, July, May and January 2018.

(2) Highest month-end balance in each of the last five quarters was in February 2019, and December, July, May and January 2018.

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 \$236.3 billion at March 31, 2019, increased \$7.3 billion from December 31, 2018. We issued \$17.3 billion of long-term debt in

first quarter 2019. Table 34 provides the aggregate carrying value of long-term debt maturities (based on contractual payment dates) for the remainder of 2019 and the following years thereafter, as of March 31, 2019.

Table 34: Maturity of Long-Term Debt

(in millions)	March 31, 2019						
	Remaining 2019	2020	2021	2022	2023	Thereafter	Total
Wells Fargo & Company (Parent Only)							
Senior notes	\$ 4,679	13,451	17,972	17,848	10,970	48,761	113,681
Subordinated notes	—	—	—	—	3,583	22,583	26,166
Junior subordinated notes	—	—	—	—	—	1,662	1,662
Total long-term debt - Parent	\$ 4,679	13,451	17,972	17,848	14,553	73,006	141,509
Wells Fargo Bank, N.A. and other bank entities (Bank)							
Senior notes	\$ 27,595	25,786	23,471	39	2,836	180	79,907
Subordinated notes	—	—	—	—	1,071	4,232	5,303
Junior subordinated notes	—	—	—	—	—	355	355
Securitized and other bank debt	1,677	1,666	727	281	83	2,140	6,574
Total long-term debt - Bank	\$ 29,272	27,452	24,198	320	3,990	6,907	92,139
Other consolidated subsidiaries							
Senior notes	\$ 1,121	11	997	—	410	120	2,659
Securitized and other bank debt	—	—	—	—	—	32	32
Total long-term debt - Other consolidated subsidiaries	\$ 1,121	11	997	—	410	152	2,691
Total long-term debt	\$ 35,072	40,914	43,167	18,168	18,953	80,065	236,339

Parent In March 2019, the Securities and Exchange Commission (SEC) declared effective the Parent's registration statement for the issuance of up to \$50 billion of senior and subordinated notes, preferred stock and other securities. At March 31, 2019, the Parent's remaining authorized issuance capacity under this registration statement was \$50 billion. The Parent's overall ability to issue debt securities is limited by the debt issuance authority granted by the Board. As of March 31, 2019, the Parent was authorized by the Board to issue up to \$180 billion in outstanding long-term debt. In April 2019, the Board increased this authority to \$200 billion. The Parent's long-

term debt issuance authority granted by the Board includes debt issued to affiliates and others. At March 31, 2019, the Parent had available \$33.5 billion in long-term debt issuance authority, net of debt issued to affiliates. During the first three months of 2019, the Parent issued \$6.6 billion of senior notes, substantially all of which were registered with the SEC. In April 2019, the Parent issued EUR €1.0 billion and GDP £600 million of senior notes. The Parent's short-term debt issuance authority granted by the Board was limited to debt issued to affiliates, and was revoked by the Board at management's request in January 2018.

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 March 31, 2019, 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 \$99.1 billion in short-term debt issuance authority and \$97.9 billion in long-term debt issuance authority. In April 2018, Wells Fargo Bank, N.A. established a new \$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 March 31, 2019, Wells Fargo Bank, N.A. had remaining issuance capacity under the new bank note program of \$50.0 billion in short-term senior notes and \$39.8 billion in long-term senior or subordinated notes. During the first three months of 2019, Wells Fargo Bank, N.A. issued \$270 million of unregistered senior notes.

During the first three months of 2019, Wells Fargo Bank, N.A. borrowed \$6.3 billion from the Federal Home Loan Bank of Des Moines, and as of March 31, 2019, Wells Fargo Bank, N.A. had outstanding advances of \$48.6 billion across the Federal Home Loan Bank System. In addition, in April 2019, Wells Fargo Bank, N.A. borrowed \$250 million from the Federal Home Loan Bank of Des Moines. Federal Home Loan Bank advances are reflected as short-term borrowings or long-term debt on the Company's balance sheet.

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.

There were no actions undertaken by the rating agencies with regard to our credit ratings during first quarter 2019. On April 1, 2019, S&P Global Ratings affirmed the credit ratings for both the Parent and Wells Fargo Bank, N.A., but revised the ratings outlook for the Parent to negative from stable. Both the Parent and Wells Fargo Bank, N.A. remain among the highest-rated financial firms in the U.S.

See the "Risk Factors" section in our 2018 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 15 (Derivatives) to Financial Statements in this Report for information regarding additional collateral and funding obligations required for certain 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 March 31, 2019, are presented in Table 35.

Table 35: Credit Ratings as of March 31, 2019

	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 Global Ratings	A-	A-2	A+	A-1
Fitch Ratings, Inc.	A+	F1	AA	F1+
DBRS	AA (low)	R-1 (middle)	AA	R-1 (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 Agency. 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.

LIBOR TRANSITION During the first three months of 2019, the Company did not issue any debt securities with an interest rate indexed to the new Secured Overnight Financing Rate (SOFR) published by the Federal Reserve Bank of New York. SOFR is an alternative to LIBOR and is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. Due to the uncertainty surrounding the future of LIBOR, it is expected that a transition away from the widespread use of LIBOR to alternative benchmark rates will occur by the end of 2021. See the "Asset/Liability Management – Liquidity and Funding" section in our 2018 Form 10-K for additional information regarding our strategy to transition products and exposures away from LIBOR, and the "Risk Factors" section in our 2018 Form 10-K for additional information regarding the potential impact of a benchmark rate, such as LIBOR, or other referenced financial metric being significantly changed, replaced or discontinued.

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 working 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 \$2.6 billion from December 31, 2018, predominantly from Wells Fargo net income of \$5.9 billion, less common and preferred stock dividends of \$2.4 billion. During first quarter 2019, we issued 28.1 million shares of common stock. During first quarter 2019, we repurchased 97.4 million shares of common stock at a cost of \$4.8 billion. The amount of our repurchases are subject to various factors as discussed in the "Securities Repurchases" section below. For additional information about share repurchases, 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 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 2017 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 BHCs.

We were required to comply with the final Basel III capital rules beginning January 2014, with certain provisions subject to

phase-in periods. Beginning January 1, 2018, the requirements for calculating CET1 and tier 1 capital, along with risk-weighted assets (RWAs), became fully phased-in. However, the requirements for calculating tier 2 and total capital are still in accordance with Transition Requirements. The entire 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.

On April 10, 2018, the FRB issued a proposed rule that would add a stress capital buffer and a stress leverage buffer to the minimum capital and tier 1 leverage ratio requirements. The buffers would be calculated based on the decrease in a financial institution's risk-based capital and tier 1 leverage ratios under the supervisory severely adverse scenario in the Comprehensive Capital Analysis and Review (CCAR), plus four quarters of planned common stock dividends. The stress capital buffer would replace the 2.5% capital conservation buffer under the Standardized Approach, whereas the stress leverage buffer would be added to the current 4% minimum tier 1 leverage ratio.

Because the Company has been designated as a G-SIB, we are also 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) considers our size, interconnectedness, cross-jurisdictional activity, substitutability, and complexity, consistent with the methodology developed by the BCBS and the Financial Stability Board (FSB). The second (method two) uses similar inputs, but replaces substitutability with use of short-term wholesale funding and will generally result in higher surcharges than the BCBS methodology. The G-SIB surcharge became fully effective on January 1, 2019. Based on year-end 2017 data, our 2019 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, our CET1 ratio (fully phased-in) of 11.92% exceeded the minimum of 9.0% by 292 basis points at March 31, 2019.

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 continue to report our tier 2 and total 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 23 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Table 36 summarizes our CET1, tier 1 capital, total capital, risk-weighted assets and capital ratios on a fully phased-in basis at March 31, 2019 and December 31, 2018. As of March 31, 2019, our CET1, tier 1, and total capital ratios were lower using RWAs calculated under the Standardized Approach.

Table 36: Capital Components and Ratios (Fully Phased-In) (1)

(in millions, except ratios)		March 31, 2019		December 31, 2018	
		Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Common Equity Tier 1	(A)	\$ 148,124	148,124	146,363	146,363
Tier 1 Capital	(B)	169,611	169,611	167,866	167,866
Total Capital	(C)	199,331	207,522	198,103	206,346
Risk-Weighted Assets	(D)	1,176,360	1,243,125	1,177,350	1,247,210
Common Equity Tier 1 Capital Ratio	(A)/(D)	12.59%	11.92 *	12.43	11.74 *
Tier 1 Capital Ratio	(B)/(D)	14.42	13.64 *	14.26	13.46 *
Total Capital Ratio	(C)/(D)	16.94	16.69 *	16.83	16.54 *

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

(1) Beginning January 1, 2018, the requirements for calculating CET1 and tier 1 capital, along with RWAs, became fully phased-in. However, the requirements for calculating tier 2 and total capital are still in accordance with Transition Requirements. Accordingly, fully phased-in total capital amounts and ratios 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 37 for information regarding the calculation and components of CET1, tier 1 capital, total capital and RWAs, as well as the corresponding reconciliation of our fully phased-in regulatory capital amounts to GAAP financial measures.

Capital Management (continued)

Table 37 provides information regarding the calculation and composition of our risk-based capital under the Advanced and Standardized Approaches at March 31, 2019 and December 31, 2018.

Table 37: Risk-Based Capital Calculation and Components

(in millions)	March 31, 2019		December 31, 2018	
	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Total equity	\$ 198,733	198,733	197,066	197,066
Adjustments:				
Preferred stock	(23,214)	(23,214)	(23,214)	(23,214)
Additional paid-in capital on ESOP preferred stock	(95)	(95)	(95)	(95)
Unearned ESOP shares	1,502	1,502	1,502	1,502
Noncontrolling interests	(901)	(901)	(900)	(900)
Total common stockholders' equity	176,025	176,025	174,359	174,359
Adjustments:				
Goodwill	(26,420)	(26,420)	(26,418)	(26,418)
Certain identifiable intangible assets (other than MSRs)	(522)	(522)	(559)	(559)
Other assets (1)	(2,131)	(2,131)	(2,187)	(2,187)
Applicable deferred taxes (2)	771	771	785	785
Investment in certain subsidiaries and other	401	401	383	383
Common Equity Tier 1 (Fully Phased-In)	148,124	148,124	146,363	146,363
Common Equity Tier 1 (Fully Phased-In)	\$ 148,124	148,124	146,363	146,363
Preferred stock	23,214	23,214	23,214	23,214
Additional paid-in capital on ESOP preferred stock	95	95	95	95
Unearned ESOP shares	(1,502)	(1,502)	(1,502)	(1,502)
Other	(320)	(320)	(304)	(304)
Total Tier 1 capital (Fully Phased-In)	(A) 169,611	169,611	167,866	167,866
Total Tier 1 capital (Fully Phased-In)	\$ 169,611	169,611	167,866	167,866
Long-term debt and other instruments qualifying as Tier 2	27,283	27,283	27,946	27,946
Qualifying allowance for credit losses (3)	2,630	10,821	2,463	10,706
Other	(193)	(193)	(172)	(172)
Total Tier 2 capital (Fully Phased-In)	(B) 29,720	37,911	30,237	38,480
Effect of Transition Requirements	520	520	695	695
Total Tier 2 capital (Transition Requirements)	\$ 30,240	38,431	30,932	39,175
Total qualifying capital (Fully Phased-In)	(A)+(B) \$ 199,331	207,522	198,103	206,346
Total Effect of Transition Requirements	520	520	695	695
Total qualifying capital (Transition Requirements)	\$ 199,851	208,042	198,798	207,041
Risk-Weighted Assets (RWAs) (4)(5):				
Credit risk	\$ 799,801	1,200,379	803,273	1,201,246
Market risk	42,746	42,746	45,964	45,964
Operational risk	333,813	N/A	328,113	N/A
Total RWAs (Fully Phased-In)	\$ 1,176,360	1,243,125	1,177,350	1,247,210

(1) Represents goodwill and other intangibles on nonmarketable equity securities, 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.

Table 38 presents the changes in Common Equity Tier 1 under the Advanced Approach for the three months ended March 31, 2019.

Table 38: Analysis of Changes in Common Equity Tier 1

(in millions)		
Common Equity Tier 1 (Fully Phased-In) at December 31, 2018	\$	146,363
Net income applicable to common stock		5,507
Common stock dividends		(2,054)
Common stock issued, repurchased, and stock compensation-related items		(3,949)
Goodwill		(2)
Certain identifiable intangible assets (other than MSRs)		37
Other assets (1)		56
Applicable deferred taxes (2)		(14)
Investment in certain subsidiaries and other		2,180
Change in Common Equity Tier 1		1,761
Common Equity Tier 1 (Fully Phased-In) at March 31, 2019	\$	148,124

(1) Represents goodwill and other intangibles on nonmarketable equity securities, 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 39 presents net changes in the components of RWAs under the Advanced and Standardized Approaches for the three months ended March 31, 2019.

Table 39: Analysis of Changes in RWAs

(in millions)		Advanced Approach	Standardized Approach
RWAs (Fully Phased-In) at December 31, 2018	\$	1,177,350	1,247,210
Net change in credit risk RWAs		(3,472)	(867)
Net change in market risk RWAs		(3,218)	(3,218)
Net change in operational risk RWAs		5,700	—
Total change in RWAs		(990)	(4,085)
RWAs (Fully Phased-In) at March 31, 2019	\$	1,176,360	1,243,125

Capital Management (continued)

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 securities, 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 40 provides a reconciliation of these non-GAAP financial measures to GAAP financial measures.

Table 40: Tangible Common Equity

		Balance at period end			Average balance		
		Quarter ended			Quarter ended		
(in millions, except ratios)		Mar 31, 2019	Dec 31, 2018	Mar 31, 2018	Mar 31, 2019	Dec 31, 2018	Mar 31, 2018
Total equity		\$ 198,733	197,066	205,910	198,349	198,442	206,180
Adjustments:							
Preferred stock		(23,214)	(23,214)	(26,227)	(23,214)	(23,463)	(26,157)
Additional paid-in capital on ESOP preferred stock		(95)	(95)	(146)	(95)	(105)	(153)
Unearned ESOP shares		1,502	1,502	2,571	1,502	1,761	2,508
Noncontrolling interests		(901)	(900)	(958)	(899)	(910)	(997)
Total common stockholders' equity	(A)	176,025	174,359	181,150	175,643	175,725	181,381
Adjustments:							
Goodwill		(26,420)	(26,418)	(26,445)	(26,420)	(26,423)	(26,516)
Certain identifiable intangible assets (other than MSRs)		(522)	(559)	(1,357)	(543)	(693)	(1,489)
Other assets (1)		(2,131)	(2,187)	(2,388)	(2,159)	(2,204)	(2,233)
Applicable deferred taxes (2)		771	785	918	784	800	933
Tangible common equity	(B)	\$ 147,723	145,980	151,878	147,305	147,205	152,076
Common shares outstanding	(C)	4,511.9	4,581.3	4,873.9	N/A	N/A	N/A
Net income applicable to common stock (3)	(D)	N/A	N/A	N/A	\$ 5,507	5,711	4,733
Book value per common share	(A)/(C)	\$ 39.01	38.06	37.17	N/A	N/A	N/A
Tangible book value per common share	(B)/(C)	32.74	31.86	31.16	N/A	N/A	N/A
Return on average common stockholders' equity (ROE) (annualized)	(D)/(A)	N/A	N/A	N/A	12.71%	12.89	10.58
Return on average tangible common equity (ROTCE) (annualized)	(D)/(B)	N/A	N/A	N/A	15.16	15.39	12.62

(1) Represents goodwill and other intangibles on nonmarketable equity securities, 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.

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 became effective on January 1, 2018, requires 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 also requires that all of our insured depository institutions maintain a SLR of 6.0% under applicable regulatory capital adequacy guidelines. In April 2018, the FRB and OCC proposed rules (the "Proposed SLR Rules") that would replace the 2% supplementary leverage buffer with a buffer equal to one-half of the firm's G-SIB capital surcharge. The Proposed SLR Rules would similarly tailor the current 6% SLR requirement for our insured depository institutions. At March 31, 2019, our SLR for the Company was 7.8% calculated under 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. See Table 41 for information regarding the calculation and components of the SLR.

Table 41: Supplementary Leverage Ratio

(in millions, except ratio)	Quarter ended March 31, 2019
Tier 1 capital	\$ 169,611
Total average assets	1,883,091
Less: deductions from Tier 1 capital (1)	28,724
Total adjusted average assets	1,854,367
Adjustments:	
Derivative exposures (2)	68,724
Repo-style transactions (3)	4,819
Other off-balance sheet exposures (4)	252,704
Total adjustments	326,247
Total leverage exposure	\$ 2,180,614
Supplementary leverage ratio	7.8%

- (1) Amounts permitted to be deducted from Tier 1 capital primarily include goodwill and other intangible assets, net of associated deferred tax liabilities.
- (2) Represents adjustments for off balance sheet derivative exposures, and derivative collateral netting as defined for supplementary leverage ratio determination purposes.
- (3) Adjustments for repo-style transactions represent counterparty credit risk for all repo-style transactions where Wells Fargo & Company is the principal (i.e., principal counterparty facing the client).
- (4) Adjustments for other off-balance sheet exposures represent the notional amounts of all off-balance sheet exposures (excluding off balance sheet exposures associated with derivative and repo-style transactions) less the adjustments for conversion to credit equivalent amounts under the regulatory capital rule.

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 became effective on January 1, 2019, U.S. G-SIBs are 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 are 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 to be added to the 18% minimum and (ii) an external TLAC leverage buffer equal to 2.0% of total leverage exposure to be added to the 7.5% minimum, in order to avoid restrictions on capital distributions and discretionary bonus payments. The rules 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 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 need to issue additional long-term debt to remain compliant with the requirements. Under the Proposed SLR Rules, the 2% external TLAC leverage buffer would be replaced with a buffer equal to one-half of the firm's G-SIB capital surcharge. Additionally, the Proposed SLR Rules would modify the leverage component for calculating the minimum amount of eligible unsecured long-term debt from 4.5% of total leverage exposure to 2.5% of total leverage exposure plus one-half of the firm's G-SIB capital surcharge. As of March 31, 2019, our eligible external TLAC as a percentage of total risk-weighted assets was 23.85% compared with a required minimum of 22.0%. Similar to the risk-based capital requirements, we determine minimum required TLAC based on the greater of RWAs determined under the Standardized and Advanced approaches.

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. As discussed above in the "Capital Management – Regulatory Capital Guidelines – Risk-Based Capital and Risk-Weighted Assets" section of this Report, the FRB has proposed including a stress capital buffer to replace the current 2.5% capital conservation buffer. Under the proposal, it is expected that the adoption of CECL accounting would be included in the calculation of the stress capital buffer. We expect that

Capital Management (*continued*)

implementation of the stress capital buffer may increase the level and volatility of minimum capital ratio requirements, which may cause our current long-term CET1 capital ratio target of 10% to increase.

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, among other things, the overall financial condition, risk profile, and capital adequacy of BHCs when evaluating capital plans.

Our 2019 capital plan, which was submitted on April 4, 2019, 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 2019 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 is expected to review 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 has indicated that it will publish its supervisory stress test results as required under the Dodd-Frank Act, and the related CCAR results taking into account the Company's proposed capital actions, by June 30, 2019.

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. We submitted the results of the mid-cycle stress test to the FRB and disclosed a summary of the results in October 2018. In October 2018, the FRB proposed a rule that would, among other things, eliminate the mid-cycle stress test requirement for banks beginning in 2020.

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.

For a discussion of certain consent orders applicable to the Company, see the "Overview" section in this Report. For a discussion of other significant regulations and regulatory oversight initiatives that have affected or may affect our business, see the "Regulatory Matters" and "Risk Factors" sections in our 2018 Form 10-K.

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 repurchase 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 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. Due to the various factors impacting the amount of our share repurchases and the fact that we tend to be in the market regularly to satisfy repurchase considerations under our capital plan, our share repurchases occur at various price levels. We may suspend share repurchase activity at any time.

In January 2018, the Board authorized the repurchase of 350 million shares of our common stock. In October 2018, the Board authorized the repurchase of an additional 350 million shares of our common stock. At March 31, 2019, we had remaining authority to repurchase approximately 298 million shares, subject to regulatory and legal conditions. For more information about share repurchases during first quarter 2019, 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.

Critical Accounting Policies

Our significant accounting policies (see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 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. Five 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;
- the valuation of residential MSRs;
- the fair value of financial instruments;
- income taxes; and
- liability for contingent litigation losses.

Management and the Board's Audit and Examination Committee have reviewed and approved these critical accounting policies. 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 2018 Form 10-K.

Current Accounting Developments

Table 42 provides the significant accounting updates applicable to us that have been issued by the FASB but are not yet effective.

Table 42: Current Accounting Developments – Issued Standards

Standard	Description	Effective date and financial statement impact
Accounting Standard Update (ASU or Update) 2018-12 – Financial Services – Insurance (Topic 944): <i>Targeted Improvements to the Accounting for Long-Duration Contracts</i>	The Update requires all features in long-duration insurance contracts that meet the definition of a market risk benefit to be measured at fair value through earnings with changes in fair value attributable to own credit risk recognized in other comprehensive income. Currently, two measurement models exist for these features, fair value and insurance accrual. The Update requires the use of a standardized discount rate and routine updates for insurance assumptions used in valuing the liability for future policy benefits for traditional long-duration contracts. The Update also simplifies the amortization of deferred acquisition costs.	The guidance becomes effective on January 1, 2021. Certain of our variable annuity reinsurance products meet the definition of market risk benefits and will be measured at fair value as of the earliest period presented. The cumulative effect of changes in own credit risk will be recognized in the beginning balance of accumulated other comprehensive income. The cumulative effect of the difference between fair value and carrying value, excluding the effect of own credit, will be recognized in the opening balance of retained earnings. As of March 31, 2019, we held \$993 million in insurance-related reserves of which \$414 million was in scope of the Update. A total of \$359 million was associated with products that meet the definition of market risk benefits, and of this amount, \$17 million was measured at fair value under current accounting standards. The market risk benefits are largely indexed to U.S. equity and fixed income markets. Upon adoption, we may incur periodic earnings volatility from changes in the fair value of market risk benefits primarily due to the long duration of these contracts. We plan to economically hedge this volatility, where feasible. The ultimate impact of these changes will depend on the composition of our market risk benefits portfolio at the date of adoption. Changes to the liability for future policy benefits for traditional long-duration contracts and deferred acquisition costs will be applied to all outstanding long-duration contracts on the basis of their existing carrying amounts at the beginning of the earliest period presented, and are not expected to be material.

Standard	Description	Effective date and financial statement impact
ASU 2016-13 – Financial Instruments – Credit Losses (Topic 326): <i>Measurement of Credit Losses on Financial Instruments</i> and subsequent related Updates	The Update changes the accounting for credit losses measurement on loans and debt securities. For loans and held-to-maturity debt securities, the Update requires a current expected credit loss (CECL) measurement to estimate the allowance for credit losses (ACL) for the remaining estimated life of the financial asset (including off-balance sheet credit exposures) using historical experience, current conditions, and reasonable and supportable forecasts. 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.	<p>We expect to adopt the guidance in first quarter 2020. Our implementation process includes loss forecasting model development, evaluation of technical accounting topics, updates to our allowance documentation, reporting processes and related internal controls, and overall operational readiness for our adoption of the Update, which will continue throughout 2019, including parallel runs for CECL alongside our current allowance process.</p> <p>We are in the process of developing, validating, and implementing models used to estimate credit losses under CECL. We have completed substantially all of our loss forecasting models, and we expect to complete the validation process for our loan models during 2019.</p> <p>Our current planned approach for estimating expected life-time credit losses for loans and debt securities includes the following key components:</p> <ul style="list-style-type: none"> • An initial forecast period of one year for all portfolio segments and classes of financing receivables and off-balance-sheet credit exposures. This period reflects management's expectation of losses based on forward-looking economic scenarios over that time. • A historical loss forecast period covering the remaining contractual life, adjusted for prepayments, by portfolio segment and class of financing receivables based on the change in key historical economic variables during representative historical expansionary and recessionary periods. • A reversion period of up to 2 years connecting the initial loss forecast to the historical loss forecast based on economic conditions at the measurement date. • We will utilize discounted cash flow (DCF) methods to measure credit impairment for loans modified in a TDR, unless they are collateral dependent and measured at the fair value of collateral. The DCF methods would obtain estimated life-time credit losses using the conceptual components described above. • For available-for-sale debt securities and certain beneficial interests classified as held-to-maturity, we plan to utilize the DCF methods to measure the ACL, which will incorporate expected credit losses using the conceptual components described above. <p>Based on our portfolio composition as of March 31, 2019, and the current economic environment, we currently estimate an overall decrease in our ACL for loans in the range of \$0 to \$1 billion. The reduction reflects an expected decrease for commercial loans, given their short contractual maturities, partially offset by an expected increase for longer duration consumer loans. This expected reduction to our ACL does not include the impact of recently issued FASB guidance to consider subsequent increases in fair value of collateral for collateral dependent loans. Application of this guidance is expected to result in a further reduction to our ACL of approximately \$1.5 billion, substantially all of which relates to residential mortgage loans that were previously written down below current recovery value estimates. We will continue to evaluate and refine the results of our loss estimates throughout 2019.</p> <p>We will recognize an ACL for held-to-maturity and available-for-sale debt securities. The ACL on available-for-sale debt securities will be subject to a limitation based on the fair value of the debt securities. Based on the credit quality of our existing debt securities portfolio, we do not expect the ACL for held-to-maturity and available-for-sale debt securities to be significant.</p> <p>The ultimate effect of CECL on our ACL will depend on the size and composition of our portfolio, the portfolio's credit quality and economic conditions at the time of adoption, as well as any refinements to our models, methodology and other key assumptions. At adoption, we will have a cumulative-effect adjustment to retained earnings for our change in the ACL, which will impact our capital. A decrease in our ACL will result in an increase to our regulatory capital amounts and ratios. Federal banking regulatory agencies have provided relief for an initial capital decrease from the Update by allowing a phased adoption over four years, on a straight-line basis.</p>

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

- ASU 2019-04 – Codification Improvements to Topic 326, *Financial Instruments – Credit Losses*, Topic 815, *Derivatives and Hedging*, and Topic 825, *Financial Instruments*. This Update includes guidance on recoveries of financial assets, which has been included in the discussion for ASU 2016-13, above.
- ASU 2018-17 – Consolidation (Topic 810): *Targeted Improvements to Related Party Guidance for Variable Interest Entities*
- ASU 2018-15 – Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40): *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of the FASB Emerging Issues Task Force)*
- ASU 2018-13 – Fair Value Measurement (Topic 820): *Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement*. This Update has been partially adopted; however, the remainder of this Update will be adopted at the effective date of January 1, 2020.
- ASU 2017-04 – Intangibles – Goodwill and Other (Topic 350): *Simplifying the Test for Goodwill Impairment*

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, return on equity, and return on tangible common 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 any 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;
- developments in our mortgage banking business, including the extent of the success of our mortgage loan modification efforts, the amount of mortgage loan repurchase demands that we receive, any negative effects relating to our mortgage servicing, loan modification or foreclosure practices, and the effects of regulatory or judicial requirements or guidance impacting our mortgage banking business and any changes in industry standards;
- our ability to realize any efficiency ratio or expense target as part of our expense management initiatives, including as a result of business and economic cyclicality, 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 interest rate environment or changes in interest rates on our net interest income, net interest margin and our mortgage originations, mortgage servicing rights and mortgage loans 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 debt securities and equity securities portfolios;
- 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 and from other instances where customers may have experienced financial harm, 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;
- resolution of regulatory matters, litigation, or other legal actions, which may result in, among other things, additional costs, fines, penalties, restrictions on our business activities, reputational harm, or other adverse consequences;
- 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, 2018.

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, 2018, 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.

Forward-looking Non-GAAP Financial Measures. From time to time management may discuss forward-looking non-GAAP financial measures, such as forward-looking estimates or targets for return on average tangible common equity. We are unable to provide a reconciliation of forward-looking non-GAAP financial measures to their most directly comparable GAAP financial measures because we are unable to provide, without unreasonable effort, a meaningful or accurate calculation or estimation of amounts that would be necessary for the reconciliation due to the complexity and inherent difficulty in forecasting and quantifying future amounts or when they may occur. Such unavailable information could be significant to future results.

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 2018 Form 10-K.

Controls and Procedures

Disclosure Controls and Procedures

The Company's management evaluated the effectiveness, as of March 31, 2019, 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 March 31, 2019.

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 first quarter 2019 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 March 31,	
	2019	2018
Interest income		
Debt securities	\$ 3,941	3,414
Mortgage loans held for sale	152	179
Loans held for sale	24	24
Loans	11,354	10,579
Equity securities	210	231
Other interest income	1,322	920
Total interest income	17,003	15,347
Interest expense		
Deposits	2,026	1,090
Short-term borrowings	596	311
Long-term debt	1,927	1,576
Other interest expense	143	132
Total interest expense	4,692	3,109
Net interest income	12,311	12,238
Provision for credit losses	845	191
Net interest income after provision for credit losses	11,466	12,047
Noninterest income		
Service charges on deposit accounts	1,094	1,173
Trust and investment fees	3,373	3,683
Card fees	944	908
Other fees	770	800
Mortgage banking	708	934
Insurance	96	114
Net gains from trading activities	357	243
Net gains on debt securities (1)	125	1
Net gains from equity securities(2)	814	783
Lease income	443	455
Other	574	602
Total noninterest income	9,298	9,696
Noninterest expense		
Salaries	4,425	4,363
Commission and incentive compensation	2,845	2,768
Employee benefits	1,938	1,598
Equipment	661	617
Net occupancy	717	713
Core deposit and other intangibles	28	265
FDIC and other deposit assessments	159	324
Other	3,143	4,394
Total noninterest expense	13,916	15,042
Income before income tax expense	6,848	6,701
Income tax expense	881	1,374
Net income before noncontrolling interests	5,967	5,327
Less: Net income from noncontrolling interests	107	191
Wells Fargo net income	\$ 5,860	5,136
Less: Preferred stock dividends and other	353	403
Wells Fargo net income applicable to common stock	\$ 5,507	4,733
Per share information		
Earnings per common share	\$ 1.21	0.97
Diluted earnings per common share	1.20	0.96
Average common shares outstanding	4,551.5	4,885.7
Diluted average common shares outstanding	4,584.0	4,930.7

- (1) Total other-than-temporary impairment (OTTI) losses were \$45 million and \$17 million for first quarter 2019 and 2018, respectively. Of total OTTI, losses of \$45 million and \$10 million were recognized in earnings, and losses of \$0 million and \$7 million were recognized as non-credit-related OTTI in other comprehensive income for first quarter 2019 and 2018, respectively.
- (2) Includes OTTI losses of \$36 million and \$20 million for first quarter 2019 and 2018, 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 March 31,	
	2019	2018
Wells Fargo net income	\$ 5,860	5,136
Other comprehensive income (loss), before tax:		
Debt securities:		
Net unrealized gains (losses) arising during the period	2,831	(3,443)
Reclassification of net (gains) losses to net income	(81)	68
Derivatives and hedging activities:		
Net unrealized losses arising during the period	(35)	(242)
Reclassification of net losses to net income	79	60
Defined benefit plans adjustments:		
Net actuarial and prior service gains (losses) arising during the period	(4)	6
Amortization of net actuarial loss, settlements and other to net income	35	32
Foreign currency translation adjustments:		
Net unrealized gains (losses) arising during the period	42	(2)
Other comprehensive income (loss), before tax	2,867	(3,521)
Income tax (expense) benefit related to other comprehensive income	(694)	862
Other comprehensive income (loss), net of tax	2,173	(2,659)
Less: Other comprehensive income from noncontrolling interests	—	—
Wells Fargo other comprehensive income (loss), net of tax	2,173	(2,659)
Wells Fargo comprehensive income	8,033	2,477
Comprehensive income from noncontrolling interests	107	191
Total comprehensive income	\$ 8,140	2,668

The accompanying notes are an integral part of these statements.

Wells Fargo & Company and Subsidiaries

Consolidated Balance Sheet

(in millions, except shares)	Mar 31, 2019	Dec 31, 2018
Assets	(Unaudited)	
Cash and due from banks	\$ 20,650	23,551
Interest-earning deposits with banks	128,318	149,736
Total cash, cash equivalents, and restricted cash	148,968	173,287
Federal funds sold and securities purchased under resale agreements	98,621	80,207
Debt securities:		
Trading, at fair value	70,378	69,989
Available-for-sale, at fair value	268,099	269,912
Held-to-maturity, at cost (fair value \$144,699 and \$142,115)	144,990	144,788
Mortgage loans held for sale (includes \$11,091 and \$11,771 carried at fair value) (1)	15,016	15,126
Loans held for sale (includes \$998 and \$1,469 carried at fair value) (1)	1,018	2,041
Loans (includes \$225 and \$244 carried at fair value) (1)	948,249	953,110
Allowance for loan losses	(9,900)	(9,775)
Net loans	938,349	943,335
Mortgage servicing rights:		
Measured at fair value	13,336	14,649
Amortized	1,427	1,443
Premises and equipment, net	8,825	8,920
Goodwill	26,420	26,418
Derivative assets	11,238	10,770
Equity securities (includes \$32,586 and \$29,556 carried at fair value) (1)	58,440	55,148
Other assets	82,667	79,850
Total assets (2)	\$ 1,887,792	1,895,883
Liabilities		
Noninterest-bearing deposits	\$ 341,399	349,534
Interest-bearing deposits	922,614	936,636
Total deposits	1,264,013	1,286,170
Short-term borrowings	106,597	105,787
Derivative liabilities	7,393	8,499
Accrued expenses and other liabilities	74,717	69,317
Long-term debt	236,339	229,044
Total liabilities (3)	1,689,059	1,698,817
Equity		
Wells Fargo stockholders' equity:		
Preferred stock	23,214	23,214
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	60,409	60,685
Retained earnings	160,776	158,163
Cumulative other comprehensive income (loss)	(3,682)	(6,336)
Treasury stock – 969,863,644 shares and 900,557,866 shares	(50,519)	(47,194)
Unearned ESOP shares	(1,502)	(1,502)
Total Wells Fargo stockholders' equity	197,832	196,166
Noncontrolling interests	901	900
Total equity	198,733	197,066
Total liabilities and equity	\$ 1,887,792	1,895,883

(1) Parenthetical amounts represent assets and liabilities that we are required to carry at fair value or have elected the fair value option.

(2) Our consolidated assets at March 31, 2019, and December 31, 2018, 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, \$16 million and \$139 million; Interest-earning deposits with banks, \$8 million and \$8 million; Debt securities, \$55 million and \$45 million; Net loans, \$14.4 billion and \$13.6 billion; Equity securities, \$112 million and \$85 million; Other assets, \$252 million and \$221 million; and Total assets, \$14.8 billion and \$14.1 billion, respectively.

(3) Our consolidated liabilities at March 31, 2019, and December 31, 2018, include the following VIE liabilities for which the VIE creditors do not have recourse to Wells Fargo: Accrued expenses and other liabilities, \$205 million and \$191 million; Long-term debt, \$775 million and \$816 million; and Total liabilities, \$980 million and \$1.0 billion, respectively.

The accompanying notes are an integral part of these statements.

Consolidated Statement of Changes in Equity (Unaudited)

(in millions, except shares)	Preferred stock		Common stock	
	Shares	Amount	Shares	Amount
Balance December 31, 2018	9,377,216	\$ 23,214	4,581,253,608	\$ 9,136
Cumulative effect from change in accounting policies (1)				
Balance January 1, 2019	9,377,216	\$ 23,214	4,581,253,608	\$ 9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			28,057,901	
Common stock repurchased			(97,363,710)	
Preferred stock issued to ESOP	—	—		
Preferred stock released by ESOP				
Preferred stock converted to common shares	(5)	—	31	
Common stock warrants repurchased/exercised				
Preferred stock issued	—	—		
Common stock dividends				
Preferred stock dividends				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	(5)	—	(69,305,778)	—
Balance March 31, 2019	9,377,211	\$ 23,214	4,511,947,830	\$ 9,136
Balance December 31, 2017	11,677,235	\$ 25,358	4,891,616,628	\$ 9,136
Cumulative effect from change in accounting policies (2)				
Balance January 1, 2018	11,677,235	\$ 25,358	4,891,616,628	\$ 9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			28,425,759	
Common stock repurchased			(50,567,457)	
Preferred stock issued to ESOP	1,100,000	1,100		
Preferred stock released by ESOP				
Preferred stock converted to common shares	(231,000)	(231)	4,407,551	
Common stock warrants repurchased/exercised				
Preferred stock issued	—	—		
Common stock dividends				
Preferred stock dividends				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	869,000	869	(17,734,147)	—
Balance March 31, 2018	12,546,235	\$ 26,227	4,873,882,481	\$ 9,136

(1) Effective January 1, 2019, we adopted ASU 2016-02 – Leases (Topic 842) and subsequent related Updates, ASU 2017-08 – Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): *Premium Amortization on Purchased Callable Debt Securities*. See Note 1 (Summary of Significant Accounting Policies) for more information.

(2) Effective January 1, 2018, we adopted ASU 2016-04 – Liabilities – Extinguishments of Liabilities (Subtopic 405-20): *Recognition of Breakage for Certain Prepaid Stored-Value Products*, ASU 2016-01 – Financial Instruments – Overall (Subtopic 825-10): *Recognition and Measurement of Financial Assets and Financial Liabilities*, and ASU 2014-09 – Revenue from Contracts With Customers (Topic 606) and subsequent related Updates. See Note 1 (Summary of Significant Accounting Policies) in this Report for more information.

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
60,685	158,163	(6,336)	(47,194)	(1,502)	196,166	900	197,066
	(492)	481			(11)		(11)
60,685	157,671	(5,855)	(47,194)	(1,502)	196,155	900	197,055
	5,860				5,860	107	5,967
		2,173			2,173	—	2,173
—					—	(106)	(106)
—	(329)		1,468		1,139		1,139
—			(4,820)		(4,820)		(4,820)
—				—	—		—
—				—	—		—
—			—		—		—
—					—		—
19	(2,073)				(2,054)		(2,054)
	(353)				(353)		(353)
544					544		544
(839)			27		(812)		(812)
(276)	3,105	2,173	(3,325)	—	1,677	1	1,678
60,409	160,776	(3,682)	(50,519)	(1,502)	197,832	901	198,733
60,893	145,263	(2,144)	(29,892)	(1,678)	206,936	1,143	208,079
	94	(118)			(24)		(24)
60,893	145,357	(2,262)	(29,892)	(1,678)	206,912	1,143	208,055
	5,136				5,136	191	5,327
		(2,659)			(2,659)	—	(2,659)
7					7	(376)	(369)
25	(231)		1,414		1,208		1,208
—			(3,029)		(3,029)		(3,029)
43				(1,143)	—		—
(19)				250	231		231
5			226		—		—
(157)					(157)		(157)
—					—		—
13	(1,924)				(1,911)		(1,911)
	(410)				(410)		(410)
437					437		437
(848)			35		(813)		(813)
(494)	2,571	(2,659)	(1,354)	(893)	(1,960)	(185)	(2,145)
60,399	147,928	(4,921)	(31,246)	(2,571)	204,952	958	205,910

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Cash Flows (Unaudited)

(in millions)	Quarter ended March 31,	
	2019	2018
Cash flows from operating activities:		
Net income before noncontrolling interests	\$ 5,967	5,327
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	845	191
Changes in fair value of MSRs, MLHFS and LHFS carried at fair value	1,144	(788)
Depreciation, amortization and accretion	1,449	1,431
Other net (gains)	(1,418)	(2,309)
Stock-based compensation	902	792
Originations and purchases of mortgage loans held for sale	(25,098)	(38,460)
Proceeds from sales of and paydowns on mortgage loans held for sale	17,148	31,236
Net change in:		
Debt and equity securities, held for trading	6,969	10,861
Loans held for sale	728	(602)
Deferred income taxes	312	484
Derivative assets and liabilities	(1,586)	(20)
Other assets	1,130	3,331
Other accrued expenses and liabilities	(541)	3,756
Net cash provided by operating activities	7,951	15,230
Cash flows from investing activities:		
Net change in:		
Federal funds sold and securities purchased under resale agreements	(18,414)	4,566
Available-for-sale debt securities:		
Proceeds from sales	1,680	3,458
Prepayments and maturities	6,001	6,909
Purchases	(4,937)	(14,179)
Held-to-maturity debt securities:		
Paydowns and maturities	2,123	2,304
Equity securities, not held for trading:		
Proceeds from sales and capital returns	1,180	1,920
Purchases	(1,352)	(1,234)
Loans:		
Loans originated by banking subsidiaries, net of principal collected	669	1,238
Proceeds from sales (including participations) of loans held for investment	3,410	3,803
Purchases (including participations) of loans	(331)	(268)
Principal collected on nonbank entities' loans	899	2,210
Loans originated by nonbank entities	(1,318)	(1,655)
Proceeds from sales of foreclosed assets and short sales	707	935
Other, net	657	154
Net cash provided (used) by investing activities	(9,026)	10,161
Cash flows from financing activities:		
Net change in:		
Deposits	(22,161)	(32,276)
Short-term borrowings	810	(5,165)
Long-term debt:		
Proceeds from issuance	17,338	15,517
Repayment	(11,898)	(11,625)
Preferred stock:		
Cash dividends paid	(294)	(418)
Common stock:		
Proceeds from issuance	181	382
Stock tendered for payment of withholding taxes	(264)	(307)
Repurchased	(4,820)	(3,029)
Cash dividends paid	(1,997)	(1,867)
Net change in noncontrolling interests	(83)	(113)
Other, net	(56)	(42)
Net cash used by financing activities	(23,244)	(38,943)
Net change in cash, cash equivalents, and restricted cash	(24,319)	(13,552)
Cash, cash equivalents, and restricted cash at beginning of period	173,287	215,947
Cash, cash equivalents, and restricted cash at end of period	\$ 148,968	202,395
Supplemental cash flow disclosures:		
Cash paid for interest	\$ 4,401	3,002
Cash paid for income taxes	126	158

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, trust and investments, mortgage banking, investment banking, retail banking, brokerage, and consumer and commercial finance through banking locations, 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, 2018 (2018 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 worse 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 (Note 6 (Loans and Allowance for Credit Losses));
- valuations of residential mortgage servicing rights (MSRs) (Note 10 (Securitizations and Variable Interest Entities) and Note 11 (Mortgage Banking Activities));
- valuations of financial instruments (Note 15 (Derivatives) and Note 16 (Fair Values of Assets and Liabilities));
- liabilities for contingent litigation losses (Note 14 (Legal Actions)); and
- income taxes.

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 2018 Form 10-K.

Accounting Standards Adopted in 2019

In first quarter 2019, we adopted the following new accounting guidance:

- Accounting Standards Update (ASU or Update) 2018-16 – Derivatives and Hedging (Topic 815): *Inclusion of the*

Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes

- ASU 2017-08 – Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): *Premium Amortization on Purchased Callable Debt Securities*
- ASU 2016-02 – Leases (Topic 842) and subsequent related Updates, including early adoption of ASU 2019-01 – Leases (Topic 842): *Codification Improvements*

ASU 2018-16 expands the list of U.S. benchmark interest rates permitted in the application of hedge accounting. The Update adds the OIS rate based on SOFR as a U.S. benchmark interest rate to facilitate the LIBOR to SOFR transition and provide sufficient lead time for entities to prepare for changes to interest rate risk hedging strategies for both risk management and hedge accounting purposes. The Update is applied prospectively for qualifying new or re-designated hedging relationships entered into on or after adoption date.

We adopted the guidance in first quarter 2019. The adoption did not have an impact as we did not designate SOFR OIS as a benchmark interest rate in any hedging relationships.

ASU 2017-08 changes the interest income recognition model for purchased callable debt securities carried at a premium, as the premium will be amortized to the earliest call date rather than to the contractual maturity date. Accounting for purchased callable debt securities held at a discount does not change, as the discount will continue to accrete to the contractual maturity date. The Update impacted our investments in purchased callable debt securities classified as available-for-sale (AFS) and held-to-maturity (HTM), which primarily consist of debt securities of U.S. states and political subdivisions.

We adopted the Update in first quarter 2019 and recorded a cumulative-effect adjustment as of January 1, 2019, that decreased total stockholders' equity by \$111 million. Retained earnings was reduced by \$592 million which reflects both the incremental premium amortization under the new guidance from the acquisition date of our impacted AFS and HTM debt securities through the date of adoption and the fact that the incremental premium amortization is not deductible for federal income tax purposes. Other comprehensive income (OCI) was increased by \$481 million which reflects the corresponding adjustment to the adoption date unrealized gain or loss of impacted AFS debt securities. Going forward, interest income recognized prior to the call date will be reduced because the premium will be amortized over a shorter period.

ASU 2016-02 modifies the guidance used by lessors and lessees to account for leasing transactions. For our transition to the new guidance, we elected several available practical expedients, including to not reassess the classification of our existing leases, any initial direct costs associated with our leases, or whether any existing contracts are or contain leases. In addition, we elected not to provide a comparative presentation for 2018 and 2017 financial statements.

We adopted the Update in first quarter 2019 and recorded a cumulative-effect adjustment that increased retained earnings by \$100 million related to deferred gains on our prior sale-leaseback transactions. We also recognized operating lease right-of-use

Note 1: Summary of Significant Accounting Policies (continued)

(ROU) assets and liabilities, substantially all of which relate to our leasing of real estate as a lessee, of \$4.9 billion and \$5.6 billion, respectively.

Leasing Activity

AS LESSOR We lease equipment to our customers under financing or operating leases.

Financing leases are presented in loans and are recorded at the discounted amounts of lease payments receivable plus the estimated residual value of the leased asset. Leveraged leases, which are a form of financing leases, are reduced by related non-recourse debt from third-party investors. Lease payments receivable reflect contractual lease payments adjusted for renewal or termination options that we believe the customer is reasonably certain to exercise. The residual value reflects our best estimate of the expected sales price for the equipment at lease termination based on sales history adjusted for recent trends in the expected exit markets. Many of our leases allow the customer to extend the lease at prevailing market terms or purchase the asset for fair value at lease termination.

Our allowance for loan losses for financing leases considers both the collectability of the lease payments receivable as well as the estimated residual value of the leased asset. We typically purchase residual value insurance on our financing leases so that our risk of loss at lease termination will be less than 10% of the initial value of the lease. Our risk to declines in residual values is further mitigated by the diversity of leased assets in our lease portfolio. In addition, we have several channels for re-leasing or marketing those assets.

In connection with a lease, we may finance the customer's purchase of other products or services from the equipment vendor and allocate the contract consideration between the use of the asset and the purchase of those products or services based on information obtained from the vendor. Amounts allocated to financing of vendor products or services are reported in loans as commercial and industrial loans, rather than as lease financing.

Our primary income from financing leases is interest income recognized using the effective interest method. Variable lease revenues, such as reimbursement for property taxes associated with the leased asset, are included in lease income within noninterest income.

Operating lease assets are presented in other assets, net of accumulated depreciation. Periodic depreciation expense is recorded on a straight-line basis to the estimated residual value over the estimated useful life of the leased asset. On a periodic basis, operating lease assets are reviewed for impairment and impairment loss is recognized if the carrying amount of operating lease assets exceeds fair value and is not recoverable. The carrying amount of leased assets is deemed not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the lease payments and the estimated residual value upon the eventual disposition of the equipment. Depreciation of leased assets and impairment loss are presented in operating leases expense within other noninterest expense.

Operating lease rental income for leased assets is recognized in lease income within noninterest income on a straight-line basis over the lease term. For leases of railcars, revenue for maintenance services provided under the lease is recognized in lease income.

We elected to exclude from revenues and expenses any sales tax incurred on lease payments which are reimbursed by the lessee. Substantially all of our leased assets are protected against casualty loss through third party insurance.

AS LESSEE We enter into lease agreements to obtain the right to use assets for our business operations, substantially all of which are real estate. Lease liabilities and ROU assets are recognized when we enter into operating or financing leases and represent our obligations and rights to use these assets over the period of the leases and may be re-measured for certain modifications, resolution of certain contingencies involving variable consideration, or our exercise of options (renewal, extension, or termination) under the lease.

Operating lease liabilities include fixed and in-substance fixed payments for the contractual duration of the lease, adjusted for renewals or terminations which were deemed probable of exercise when measured. The lease payments are discounted using a rate determined when the lease is recognized. As we typically do not know the discount rate implicit in the lease, we estimate a discount rate that we believe approximates a collateralized borrowing rate for the estimated duration of the lease. The discount rate is updated when re-measurement events occur. The related operating lease ROU assets may differ from operating lease liabilities due to initial direct costs, deferred or prepaid lease payments and lease incentives.

We present operating lease liabilities in accrued expenses and other liabilities and the related operating lease ROU assets in other assets. The amortization of operating lease ROU assets and the accretion of operating lease liabilities are reported together as fixed lease expense and are included in net occupancy expense within noninterest expense. The fixed lease expense is recognized on a straight-line basis over the life of the lease.

Some of our operating leases include variable lease payments which are periodic adjustments of our payments for the use of the asset based on changes in factors such as consumer price indices, fair market value, tax rates imposed by taxing authorities, or lessor cost of insurance. To the extent not included in operating lease liabilities and operating lease ROU assets, these variable lease payments are recognized as incurred in net occupancy expense within noninterest expense.

We account for amounts paid for maintenance or other services as lease payments. In addition, for certain asset classes, we have elected to exclude leases with original terms of less than one year from the operating lease ROU assets and lease liabilities. The related short-term lease expense is included in net occupancy expense.

Finance lease (formerly capital lease) liabilities are presented in long-term debt and the associated finance ROU assets are presented in premises and equipment.

Share Repurchases

From time to time we may enter into private forward repurchase contracts, written repurchase plans pursuant to Rule 10b5-1 of the Securities Exchange Act of 1934, or a combination of the two to complement our open-market common stock repurchase strategies. The stock repurchase transactions 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 the private forward repurchase 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 the Board of Governors of the Federal Reserve System (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 did not enter into any private forward repurchase contracts in first quarter 2019 and we had no unsettled private share repurchase contracts at March 31, 2019.

Under a Rule 10b5-1 repurchase plan, payments and receipt of repurchased shares settle on the same day and the shares repurchased reduce the total number of outstanding shares of common stock upon the settlement of each trade under the plan.

Supplemental Cash Flow Information

Significant noncash activities are presented in Table 1.1.

Table 1.1: Supplemental Cash Flow Information

(in millions)	Quarter ended March 31,	
	2019	2018
Trading debt securities retained from securitization of MLHFS	\$ 8,875	8,776
Transfers from loans to MLHFS	1,292	1,297
Transfers from loans to LHFS	3	1,973
Transfers from available-for-sale debt securities to held-to-maturity debt securities	2,407	4,451
Operating lease ROU assets acquired with operating lease liabilities (1)	5,127	—

(1) First quarter 2019 includes \$4.9 billion from adoption of ASU 2016-02 – Leases (Topic 842) and \$227 million attributable to new leases and changes from modified leases.

Subsequent Events

We have evaluated the effects of events that have occurred subsequent to March 31, 2019, and, except as disclosed elsewhere in the footnotes, there have been no material events that would

require recognition in our first quarter 2019 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.

We completed no acquisitions during first quarter 2019 and had no business combinations pending as of March 31, 2019.

Note 3: Cash, Loan and Dividend Restrictions

Cash and cash equivalents may be restricted as to usage or withdrawal. FRB regulations require that each of our subsidiary banks maintain reserve balances on deposit with the Federal Reserve Banks. Table 3.1 provides a summary of restrictions on cash equivalents in addition to the FRB reserve cash balance requirements.

Table 3.1: Nature of Restrictions on Cash Equivalents

(in millions)	Mar 31, 2019	Dec 31, 2018
Average required reserve balance for FRB (1)	\$ 11,164	12,428
Reserve balance for non-U.S. central banks	746	517
Segregated for benefit of brokerage customers under federal and other brokerage regulations	913	1,135
Related to consolidated variable interest entities (VIEs) that can only be used to settle liabilities of VIEs	24	147

(1) FRB required reserve balance represents average for first quarter 2019 and for the year ended December 31, 2018.

We have a state-chartered subsidiary bank that is subject to state regulations that limit dividends. Under these provisions and regulatory limitations, our national and state-chartered subsidiary banks could have declared additional dividends of \$7.3 billion at March 31, 2019, without obtaining prior regulatory approval. Our nonbank subsidiaries are also limited by certain federal and state statutory provisions and regulations covering the amount of dividends that may be paid in any given year. In addition, under a Support Agreement dated June 28, 2017, among Wells Fargo & Company, the parent holding company (the "Parent"), WFC Holdings, LLC, an intermediate holding company and subsidiary of the Parent (the "IHC"), and Wells Fargo Bank, N.A., Wells Fargo Securities, LLC, and Wells Fargo Clearing Services, LLC, each an indirect subsidiary of the Parent, the IHC may be restricted from making dividend payments to the Parent if certain liquidity and/or capital metrics fall below defined triggers. Based on retained earnings at March 31, 2019, our nonbank subsidiaries could have declared additional dividends of \$24.9 billion at March 31, 2019, without obtaining prior regulatory approval. For additional information see Note 3 (Cash, Loan and Dividend Restrictions) in our 2018 Form 10-K.

The FRB's Capital Plan Rule (codified at 12 CFR 225.8 of Regulation Y) establishes capital planning and prior notice and approval requirements for capital distributions including dividends by certain large bank holding companies. The FRB has also published guidance regarding its supervisory expectations for capital planning, including capital policies regarding the process relating to common stock dividend and repurchase decisions in the FRB's SR Letter 15-18. The effect of this guidance is to require the approval of the FRB (or specifically under the Capital Plan Rule, a notice of non-objection) for the Company to repurchase or redeem common or perpetual preferred stock as well as to raise the per share quarterly dividend from its current level of \$0.45 per share as declared by the Company's Board of Directors on April 23, 2019, payable on June 1, 2019.

Note 4: Trading Activities

Table 4.1 presents a summary of our trading assets and liabilities measured at fair value through earnings.

Table 4.1: Trading Assets and Liabilities

(in millions)	Mar 31, 2019	Dec 31, 2018
Trading assets:		
Debt securities	\$ 70,378	69,989
Equity securities	20,933	19,449
Loans held for sale	998	1,469
Gross trading derivative assets	30,002	29,216
Netting (1)	(20,809)	(19,807)
Total trading derivative assets	9,193	9,409
Total trading assets	101,502	100,316
Trading liabilities:		
Short sale	21,586	19,720
Gross trading derivative liabilities	28,994	28,717
Netting (1)	(22,810)	(21,178)
Total trading derivative liabilities	6,184	7,539
Total trading liabilities	\$ 27,770	27,259

(1) Represents balance sheet netting for trading derivative asset and liability balances, and trading portfolio level counterparty valuation adjustments.

Table 4.2 provides a summary of the net interest income earned from trading securities, and net gains and losses due to the realized and unrealized gains and losses from trading activities.

Table 4.2: Net Interest Income and Net Gains (Losses) on Trading Activities

(in millions)	Quarter ended March 31,	
	2019	2018
Interest income (1):		
Debt securities	\$ 793	631
Equity securities	115	141
Loans held for sale	23	8
Total interest income	931	780
Less: Interest expense (2)	136	128
Net interest income	795	652
Net gains (losses) from trading activities:		
Debt securities	688	(499)
Equity securities	2,067	(469)
Loans held for sale	14	8
Derivatives (3)	(2,412)	1,203
Total net gains from trading activities (4)	357	243
Total trading-related net interest and noninterest income	\$ 1,152	895

(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) 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.

(4) Represents realized gains (losses) from our trading activities and unrealized gains (losses) due to changes in fair value of our trading positions, attributable to the type of asset or liability.

Note 5: Available-for-Sale and Held-to-Maturity Debt Securities

Table 5.1 provides the amortized cost and fair value by major categories of available-for-sale debt 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 debt securities are reported on an after-tax basis as a component of cumulative OCI. Information on debt securities held for trading is included in Note 4 (Trading Activities) to Financial Statements in this Report.

Table 5.1: Amortized Cost and Fair Value

(in millions)	Amortized Cost	Gross unrealized gains	Gross unrealized losses	Fair value
March 31, 2019				
Available-for-sale debt securities:				
Securities of U.S. Treasury and federal agencies	\$ 15,168	4	(66)	15,106
Securities of U.S. states and political subdivisions (1)	48,566	1,194	(60)	49,700
Mortgage-backed securities:				
Federal agencies	151,182	749	(1,268)	150,663
Residential	1,432	24	—	1,456
Commercial	4,332	50	(10)	4,372
Total mortgage-backed securities	156,946	823	(1,278)	156,491
Corporate debt securities	6,188	204	(38)	6,354
Collateralized loan and other debt obligations (2)	35,304	169	(158)	35,315
Other (3)	5,074	73	(14)	5,133
Total available-for-sale debt securities	267,246	2,467	(1,614)	268,099
Held-to-maturity debt securities:				
Securities of U.S. Treasury and federal agencies	44,758	85	(150)	44,693
Securities of U.S. states and political subdivisions	6,163	102	(15)	6,250
Federal agency and other mortgage-backed securities (4)	94,009	419	(732)	93,696
Collateralized loan obligations	60	—	—	60
Total held-to-maturity debt securities	144,990	606	(897)	144,699
Total	\$ 412,236	3,073	(2,511)	412,798
December 31, 2018				
Available-for-sale debt securities:				
Securities of U.S. Treasury and federal agencies	\$ 13,451	3	(106)	13,348
Securities of U.S. states and political subdivisions (1)	48,994	716	(446)	49,264
Mortgage-backed securities:				
Federal agencies	155,974	369	(3,140)	153,203
Residential	2,638	142	(5)	2,775
Commercial	4,207	40	(22)	4,225
Total mortgage-backed securities	162,819	551	(3,167)	160,203
Corporate debt securities	6,230	131	(90)	6,271
Collateralized loan and other debt obligations (2)	35,581	158	(396)	35,343
Other (3)	5,396	100	(13)	5,483
Total available-for-sale debt securities	272,471	1,659	(4,218)	269,912
Held-to-maturity debt securities:				
Securities of U.S. Treasury and federal agencies	44,751	4	(415)	44,340
Securities of U.S. states and political subdivisions	6,286	30	(116)	6,200
Federal agency and other mortgage-backed securities (4)	93,685	112	(2,288)	91,509
Collateralized loan obligations	66	—	—	66
Total held-to-maturity debt securities	144,788	146	(2,819)	142,115
Total	\$ 417,259	1,805	(7,037)	412,027

(1) Includes investments in tax-exempt preferred debt securities issued by investment funds or trusts that predominantly invest in tax-exempt municipal securities. The cost basis and fair value of these types of securities was \$5.6 billion each at March 31, 2019, and \$6.3 billion each at December 31, 2018.

(2) Includes collateralized debt obligations (CDOs) with a cost basis and fair value of \$621 million and \$755 million, respectively, at March 31, 2019, and \$662 million and \$800 million, respectively, at December 31, 2018.

(3) Primarily includes asset-backed securities collateralized by student loans.

(4) Predominantly consists of federal agency mortgage-backed securities at both March 31, 2019 and December 31, 2018.

Gross Unrealized Losses and Fair Value

Table 5.2 shows the gross unrealized losses and fair value of available-for-sale and held-to-maturity debt securities by length of time those individual securities in each category have been in a continuous loss position. Debt securities on which we have taken credit-related other-than-temporary impairment (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 5.2: 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
March 31, 2019						
Available-for-sale debt securities:						
Securities of U.S. Treasury and federal agencies	\$ —	—	(66)	6,220	(66)	6,220
Securities of U.S. states and political subdivisions	(13)	4,027	(47)	3,612	(60)	7,639
Mortgage-backed securities:						
Federal agencies	(5)	1,392	(1,263)	95,706	(1,268)	97,098
Residential	—	—	—	—	—	—
Commercial	(7)	1,542	(3)	105	(10)	1,647
Total mortgage-backed securities	(12)	2,934	(1,266)	95,811	(1,278)	98,745
Corporate debt securities	(17)	736	(21)	373	(38)	1,109
Collateralized loan and other debt obligations	(131)	19,572	(27)	2,513	(158)	22,085
Other	(7)	1,034	(7)	278	(14)	1,312
Total available-for-sale debt securities	(180)	28,303	(1,434)	108,807	(1,614)	137,110
Held-to-maturity debt securities:						
Securities of U.S. Treasury and federal agencies	—	—	(150)	30,379	(150)	30,379
Securities of U.S. states and political subdivisions	—	—	(15)	1,663	(15)	1,663
Federal agency and other mortgage-backed securities	—	—	(732)	64,315	(732)	64,315
Collateralized loan obligations	—	—	—	—	—	—
Total held-to-maturity debt securities	—	—	(897)	96,357	(897)	96,357
Total	\$ (180)	28,303	(2,331)	205,164	(2,511)	233,467
December 31, 2018						
Available-for-sale debt securities:						
Securities of U.S. Treasury and federal agencies	\$ (1)	498	(105)	6,204	(106)	6,702
Securities of U.S. states and political subdivisions	(73)	9,746	(373)	9,017	(446)	18,763
Mortgage-backed securities:						
Federal agencies	(42)	10,979	(3,098)	112,252	(3,140)	123,231
Residential	(3)	398	(2)	69	(5)	467
Commercial	(20)	1,972	(2)	79	(22)	2,051
Total mortgage-backed securities	(65)	13,349	(3,102)	112,400	(3,167)	125,749
Corporate debt securities	(64)	1,965	(26)	298	(90)	2,263
Collateralized loan and other debt obligations	(388)	28,306	(8)	553	(396)	28,859
Other	(7)	819	(6)	159	(13)	978
Total available-for-sale debt securities	(598)	54,683	(3,620)	128,631	(4,218)	183,314
Held-to-maturity debt securities:						
Securities of U.S. Treasury and federal agencies	(3)	895	(412)	41,083	(415)	41,978
Securities of U.S. states and political subdivisions	(4)	598	(112)	3,992	(116)	4,590
Federal agency and other mortgage-backed securities	(5)	4,635	(2,283)	77,741	(2,288)	82,376
Collateralized loan obligations	—	—	—	—	—	—
Total held-to-maturity debt securities	(12)	6,128	(2,807)	122,816	(2,819)	128,944
Total	\$ (610)	60,811	(6,427)	251,447	(7,037)	312,258

Note 5: Available-for-Sale and Held-to-Maturity Debt Securities (continued)

We have assessed each debt 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 debt 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. We evaluate, where necessary, whether credit impairment exists by comparing the present value of the expected cash flows to the debt securities' amortized cost basis.

For descriptions of the factors we consider when analyzing debt securities for impairment, see Note 1 (Summary of Significant Accounting Policies) and Note 5 (Available-for-Sale and Held-to-Maturity Debt Securities) to Financial Statements in our 2018 Form 10-K. There were no material changes to our methodologies for assessing impairment in first quarter 2019.

Table 5.3 shows the gross unrealized losses and fair value of the available-for-sale and held-to-maturity debt 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 debt security. Debt 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, debt securities rated below investment grade, labeled as "speculative grade" by the rating agencies, are considered to be distinctively higher credit risk than investment grade debt securities. We have also included debt securities not rated by S&P or Moody's in the table below based on our internal credit grade of the debt 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 debt securities categorized as investment grade based on internal credit grades were \$11 million and \$4.0 billion, respectively, at March 31, 2019, and \$20 million and \$5.2 billion, respectively, at December 31, 2018. If an internal credit grade was not assigned, we categorized the debt security as non-investment grade.

Table 5.3: 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
March 31, 2019				
Available-for-sale debt securities:				
Securities of U.S. Treasury and federal agencies	\$ (66)	6,220	—	—
Securities of U.S. states and political subdivisions	(48)	7,412	(12)	227
Mortgage-backed securities:				
Federal agencies	(1,268)	97,098	—	—
Residential	—	—	—	—
Commercial	(8)	1,636	(2)	11
Total mortgage-backed securities	(1,276)	98,734	(2)	11
Corporate debt securities	(8)	455	(30)	654
Collateralized loan and other debt obligations	(158)	22,085	—	—
Other	(8)	1,039	(6)	273
Total available-for-sale debt securities	(1,564)	135,945	(50)	1,165
Held-to-maturity debt securities:				
Securities of U.S. Treasury and federal agencies	(150)	30,379	—	—
Securities of U.S. states and political subdivisions	(15)	1,663	—	—
Federal agency and other mortgage-backed securities	(731)	64,185	(1)	130
Collateralized loan obligations	—	—	—	—
Total held-to-maturity debt securities	(896)	96,227	(1)	130
Total	\$ (2,460)	232,172	(51)	1,295
December 31, 2018				
Available-for-sale debt securities:				
Securities of U.S. Treasury and federal agencies	\$ (106)	6,702	—	—
Securities of U.S. states and political subdivisions	(425)	18,447	(21)	316
Mortgage-backed securities:				
Federal agencies	(3,140)	123,231	—	—
Residential	(2)	295	(3)	172
Commercial	(20)	1,999	(2)	52
Total mortgage-backed securities	(3,162)	125,525	(5)	224
Corporate debt securities	(17)	791	(73)	1,472
Collateralized loan and other debt obligations	(396)	28,859	—	—
Other	(7)	726	(6)	252
Total available-for-sale debt securities	(4,113)	181,050	(105)	2,264
Held-to-maturity debt securities:				
Securities of U.S. Treasury and federal agencies	(415)	41,978	—	—
Securities of U.S. states and political subdivisions	(116)	4,590	—	—
Federal agency and other mortgage-backed securities	(2,278)	81,977	(10)	399
Collateralized loan obligations	—	—	—	—
Total held-to-maturity debt securities	(2,809)	128,545	(10)	399
Total	\$ (6,922)	309,595	(115)	2,663

Contractual Maturities

Table 5.4 shows the fair value and contractual weighted-average yields (taxable-equivalent basis) of available-for-sale debt securities by contractual maturity. The remaining contractual principal maturities for mortgage-backed securities (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 5.4: Available-for Sale Debt Securities - Fair Value 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
March 31, 2019										
Available-for-sale debt securities (1):										
Fair value:										
Securities of U.S. Treasury and federal agencies	\$ 15,106	1.93%	\$ 2,154	1.63%	\$ 12,903	1.98%	\$ 49	1.89%	\$ —	—%
Securities of U.S. states and political subdivisions	49,700	4.81	3,665	2.81	5,986	3.39	4,274	3.47	35,775	5.41
Mortgage-backed securities:										
Federal agencies	150,663	3.43	—	—	152	3.50	1,819	2.57	148,692	3.44
Residential	1,456	2.97	—	—	1	5.17	—	—	1,455	2.96
Commercial	4,372	3.72	—	—	—	—	341	3.60	4,031	3.73
Total mortgage-backed securities	156,491	3.44	—	—	153	3.51	2,160	2.73	154,178	3.45
Corporate debt securities	6,354	5.09	430	5.78	2,509	5.25	2,795	4.70	620	5.67
Collateralized loan and other debt obligations	35,315	4.15	—	—	18	4.80	10,889	4.24	24,408	4.11
Other	5,133	3.17	8	5.82	751	4.04	1,482	2.08	2,892	3.50
Total available-for-sale debt securities at fair value	\$ 268,099	3.73%	\$ 6,257	2.61%	\$ 22,320	2.81%	\$ 21,649	3.85%	\$ 217,873	3.85%

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

Table 5.5: Held-to-Maturity Debt Securities - 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
March 31, 2019										
Held-to-maturity debt securities (1):										
Amortized cost:										
Securities of U.S. Treasury and federal agencies	\$ 44,758	2.12%	\$ —	—%	\$ 32,362	2.04%	\$ 12,396	2.32%	\$ —	—%
Securities of U.S. states and political subdivisions	6,163	4.92	—	—	70	6.03	1,366	4.92	4,727	4.90
Federal agency and other mortgage-backed securities	94,009	3.11	—	—	15	3.82	—	—	93,994	3.11
Collateralized loan obligations	60	3.97	—	—	—	—	60	3.97	—	—
Total held-to-maturity debt securities at amortized cost	\$ 144,990	2.88%	\$ —	—%	\$ 32,447	2.05%	\$ 13,822	2.58%	\$ 98,721	3.19%

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

Table 5.6 shows the fair value of held-to-maturity debt securities by contractual maturity.

Table 5.6: Held-to-Maturity Debt Securities - 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
March 31, 2019					
Held-to-maturity debt securities:					
Fair value:					
Securities of U.S. Treasury and federal agencies	\$ 44,693	—	32,245	12,448	—
Securities of U.S. states and political subdivisions	6,250	—	70	1,403	4,777
Federal agency and other mortgage-backed securities	93,696	—	15	—	93,681
Collateralized loan obligations	60	—	—	60	—
Total held-to-maturity debt securities at fair value	\$ 144,699	—	32,330	13,911	98,458

Note 5: Available-for-Sale and Held-to-Maturity Debt Securities (continued)

Realized Gains and Losses

Table 5.7 shows the gross realized gains and losses on sales and OTTI write-downs related to available-for-sale debt securities.

Table 5.7: Realized Gains and Losses

(in millions)	Quarter ended March 31,	
	2019	2018
Gross realized gains	\$ 173	21
Gross realized losses	(3)	(10)
OTTI write-downs	(45)	(10)
Net realized gains from available-for-sale debt securities	\$ 125	1

Other-Than-Temporarily Impaired Debt Securities

Table 5.8 shows the detail of total OTTI write-downs included in earnings for available-for-sale debt securities. There were no

OTTI write-downs on held-to-maturity debt securities during first quarter 2019 and 2018.

Table 5.8: Detail of OTTI Write-downs

(in millions)	Quarter ended March 31,	
	2019	2018
Debt securities OTTI write-downs included in earnings:		
Securities of U.S. states and political subdivisions	\$ 29	2
Mortgage-backed securities:		
Residential	—	1
Commercial	14	7
Corporate debt securities	2	—
Total debt securities OTTI write-downs included in earnings	\$ 45	10

Table 5.9 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 5.9: OTTI Write-downs Included in Earnings and the Related Changes in OCI

(in millions)	Quarter ended March 31,	
	2019	2018
OTTI on debt securities		
Recorded as part of gross realized losses:		
Credit-related OTTI	\$ 16	9
Intent-to-sell OTTI	29	1
Total recorded as part of gross realized losses	45	10
Changes to OCI for losses (reversal of losses) in non-credit-related OTTI (1):		
Securities of U.S. states and political subdivisions	—	(2)
Residential mortgage-backed securities	(1)	(1)
Commercial mortgage-backed securities	1	10
Total changes to OCI for non-credit-related OTTI	—	7
Total OTTI losses recorded on debt securities	\$ 45	17

(1) Represents amounts recorded to OCI for impairment of debt securities, due to factors other than credit, 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 debt securities due to non-credit factors.

Table 5.10 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 5.10: Rollforward of OTTI Credit Loss

(in millions)	Quarter ended March 31,	
	2019	2018
Credit loss recognized, beginning of period	\$ 562	742
Additions:		
For securities with initial credit impairments	2	—
For securities with previous credit impairments	14	9
Total additions	16	9
Reductions:		
For securities sold, matured, or intended/required to be sold	(346)	(101)
For recoveries of previous credit impairments (1)	—	(1)
Total reductions	(346)	(102)
Credit loss recognized, end of period	\$ 232	649

(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 6: Loans and Allowance for Credit Losses

Table 6.1 presents total loans outstanding by portfolio segment and class of financing receivable. Outstanding balances include a total net reduction of \$466 million and \$1.3 billion at March 31, 2019, and December 31, 2018, respectively, for unearned income,

net deferred loan fees, and unamortized discounts and premiums.

Table 6.1: Loans Outstanding

(in millions)	Mar 31, 2019	Dec 31, 2018
Commercial:		
Commercial and industrial	\$ 349,134	350,199
Real estate mortgage	122,113	121,014
Real estate construction	21,857	22,496
Lease financing	19,122	19,696
Total commercial	512,226	513,405
Consumer:		
Real estate 1-4 family first mortgage	284,545	285,065
Real estate 1-4 family junior lien mortgage	33,099	34,398
Credit card	38,279	39,025
Automobile	44,913	45,069
Other revolving credit and installment	35,187	36,148
Total consumer	436,023	439,705
Total loans	\$ 948,249	953,110

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 6.2 presents total commercial foreign loans outstanding by class of financing receivable.

Table 6.2: Commercial Foreign Loans Outstanding

(in millions)	Mar 31, 2019	Dec 31, 2018
Commercial foreign loans:		
Commercial and industrial	\$ 63,158	62,564
Real estate mortgage	7,049	6,731
Real estate construction	1,138	1,011
Lease financing	1,167	1,159
Total commercial foreign loans	\$ 72,512	71,465

Loan Purchases, Sales, and Transfers

Table 6.3 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 6.3: Loan Purchases, Sales, and Transfers

(in millions)	2019			2018		
	Commercial	Consumer (1)	Total	Commercial	Consumer (1)	Total
Quarter ended March 31,						
Purchases	\$ 329	3	332	256	—	256
Sales	(421)	(179)	(600)	(460)	—	(460)
Transfers (to) from MLHFS/LHFS	(3)	—	(3)	(420)	(1,553)	(1,973)

(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.

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. The unfunded amount of these temporary advance arrangements totaled approximately \$91.0 billion at both March 31, 2019 and December 31, 2018.

We issue commercial letters of credit to assist customers in purchasing goods or services, typically for international trade. At March 31, 2019, and December 31, 2018, we had \$1.2 billion and \$919 million, 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 13 (Guarantees, Pledged Assets and Collateral, and Other Commitments) 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 6.4. The table excludes the issued standby and commercial letters of credit and temporary advance arrangements described above.

Table 6.4: Unfunded Credit Commitments

(in millions)	Mar 31, 2019	Dec 31, 2018
Commercial:		
Commercial and industrial	\$ 328,156	330,492
Real estate mortgage	7,453	6,984
Real estate construction	15,748	16,400
Total commercial	351,357	353,876
Consumer:		
Real estate 1-4 family first mortgage	39,915	29,736
Real estate 1-4 family junior lien mortgage	37,854	37,719
Credit card	112,238	109,840
Other revolving credit and installment	27,123	27,530
Total consumer	217,130	204,825
Total unfunded credit commitments	\$ 568,487	558,701

Note 6: Loans and Allowance for Credit Losses (continued)

Allowance for Credit Losses

Table 6.5 presents the allowance for credit losses, which consists of the allowance for loan losses and the allowance for unfunded credit commitments.

Table 6.5: Allowance for Credit Losses

(in millions)	Quarter ended March 31,	
	2019	2018
Balance, beginning of period	\$ 10,707	11,960
Provision for credit losses	845	191
Interest income on certain impaired loans (1)	(39)	(43)
Loan charge-offs:		
Commercial:		
Commercial and industrial	(176)	(164)
Real estate mortgage	(12)	(2)
Real estate construction	(1)	—
Lease financing	(11)	(17)
Total commercial	(200)	(183)
Consumer:		
Real estate 1-4 family first mortgage	(43)	(41)
Real estate 1-4 family junior lien mortgage	(34)	(47)
Credit card	(437)	(405)
Automobile	(187)	(300)
Other revolving credit and installment	(162)	(180)
Total consumer	(863)	(973)
Total loan charge-offs	(1,063)	(1,156)
Loan recoveries:		
Commercial:		
Commercial and industrial	43	79
Real estate mortgage	6	17
Real estate construction	3	4
Lease financing	3	5
Total commercial	55	105
Consumer:		
Real estate 1-4 family first mortgage	55	59
Real estate 1-4 family junior lien mortgage	43	55
Credit card	85	73
Automobile	96	92
Other revolving credit and installment	34	31
Total consumer	313	310
Total loan recoveries	368	415
Net loan charge-offs	(695)	(741)
Other	3	(54)
Balance, end of period	\$ 10,821	11,313
Components:		
Allowance for loan losses	\$ 9,900	10,373
Allowance for unfunded credit commitments	921	940
Allowance for credit losses	\$ 10,821	11,313
Net loan charge-offs (annualized) as a percentage of average total loans	0.30%	0.32
Allowance for loan losses as a percentage of total loans	1.04	1.10
Allowance for credit losses as a percentage of total loans	1.14	1.19

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

Table 6.6: Allowance Activity by Portfolio Segment

(in millions)	2019			2018		
	Commercial	Consumer	Total	Commercial	Consumer	Total
Quarter ended March 31,						
Balance, beginning of period	\$ 6,417	4,290	10,707	6,632	5,328	11,960
Provision for credit losses	164	681	845	169	22	191
Interest income on certain impaired loans	(11)	(28)	(39)	(11)	(32)	(43)
Loan charge-offs	(200)	(863)	(1,063)	(183)	(973)	(1,156)
Loan recoveries	55	313	368	105	310	415
Net loan charge-offs	(145)	(550)	(695)	(78)	(663)	(741)
Other	3	—	3	(4)	(50)	(54)
Balance, end of period	\$ 6,428	4,393	10,821	6,708	4,605	11,313

Table 6.7 disaggregates our allowance for credit losses and recorded investment in loans by impairment methodology.

Table 6.7: Allowance by Impairment Methodology

(in millions)	Allowance for credit losses			Recorded investment in loans		
	Commercial	Consumer	Total	Commercial	Consumer	Total
March 31, 2019						
Collectively evaluated (1)	\$ 5,863	3,448	9,311	508,379	420,010	928,389
Individually evaluated (2)	565	945	1,510	3,847	12,813	16,660
PCI (3)	—	—	—	—	3,200	3,200
Total	\$ 6,428	4,393	10,821	512,226	436,023	948,249
December 31, 2018						
Collectively evaluated (1)	\$ 5,903	3,361	9,264	510,180	421,574	931,754
Individually evaluated (2)	514	929	1,443	3,221	13,126	16,347
PCI (3)	—	—	—	4	5,005	5,009
Total	\$ 6,417	4,290	10,707	513,405	439,705	953,110

- (1) Represents loans collectively evaluated for impairment in accordance with Accounting Standards Codification (ASC) 450-20, *Loss Contingencies* (formerly Statement of Financial Accounting Standards (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 December 31, 2018.

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 6.8 provides a breakdown of outstanding commercial loans by risk category. Of the \$15.6 billion in criticized commercial and industrial loans and \$5.0 billion in criticized commercial real estate (CRE) loans at March 31, 2019, \$2.0 billion and \$735 million, respectively, have been placed on nonaccrual status and written down to net realizable collateral value.

Note 6: Loans and Allowance for Credit Losses (continued)

Table 6.8: Commercial Loans by Risk Category

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Lease financing	Total
March 31, 2019					
By risk category:					
Pass	\$ 333,502	117,353	21,612	18,138	490,605
Criticized	15,632	4,760	245	984	21,621
Total commercial loans (excluding PCI)	349,134	122,113	21,857	19,122	512,226
Total commercial PCI loans (carrying value)	—	—	—	—	—
Total commercial loans	\$ 349,134	122,113	21,857	19,122	512,226
December 31, 2018					
By risk category:					
Pass	\$ 335,412	116,514	22,207	18,671	492,804
Criticized	14,783	4,500	289	1,025	20,597
Total commercial loans (excluding PCI)	350,195	121,014	22,496	19,696	513,401
Total commercial PCI loans (carrying value)	4	—	—	—	4
Total commercial loans	\$ 350,199	121,014	22,496	19,696	513,405

Table 6.9 provides past due information for commercial loans, which we monitor as part of our credit risk management practices.

Table 6.9: Commercial Loans by Delinquency Status

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Lease financing	Total
March 31, 2019					
By delinquency status:					
Current-29 days past due (DPD) and still accruing	\$ 346,696	121,196	21,591	18,871	508,354
30-89 DPD and still accruing	410	198	225	175	1,008
90+ DPD and still accruing	42	20	5	—	67
Nonaccrual loans	1,986	699	36	76	2,797
Total commercial loans (excluding PCI)	349,134	122,113	21,857	19,122	512,226
Total commercial PCI loans (carrying value)	—	—	—	—	—
Total commercial loans	\$ 349,134	122,113	21,857	19,122	512,226
December 31, 2018					
By delinquency status:					
Current-29 DPD and still accruing	\$ 348,158	120,176	22,411	19,443	510,188
30-89 DPD and still accruing	508	207	53	163	931
90+ DPD and still accruing	43	51	—	—	94
Nonaccrual loans	1,486	580	32	90	2,188
Total commercial loans (excluding PCI)	350,195	121,014	22,496	19,696	513,401
Total commercial PCI loans (carrying value)	4	—	—	—	4
Total commercial loans	\$ 350,199	121,014	22,496	19,696	513,405

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 6.10 provides the outstanding balances of our consumer portfolio by delinquency status.

Table 6.10: 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
March 31, 2019						
By delinquency status:						
Current-29 DPD	\$ 266,098	32,373	37,334	43,836	34,869	414,510
30-59 DPD	1,441	243	251	777	127	2,839
60-89 DPD	494	118	193	222	78	1,105
90-119 DPD	231	70	174	74	74	623
120-179 DPD	223	78	327	4	24	656
180+ DPD	683	201	—	—	15	899
Government insured/guaranteed loans (1)	11,966	—	—	—	—	11,966
Loans held at fair value	225	—	—	—	—	225
Total consumer loans (excluding PCI)	281,361	33,083	38,279	44,913	35,187	432,823
Total consumer PCI loans (carrying value) (2)	3,184	16	—	—	—	3,200
Total consumer loans	\$ 284,545	33,099	38,279	44,913	35,187	436,023
December 31, 2018						
By delinquency status:						
Current-29 DPD	\$ 263,881	33,644	38,008	43,604	35,794	414,931
30-59 DPD	1,411	247	292	1,040	140	3,130
60-89 DPD	549	126	212	314	87	1,288
90-119 DPD	257	74	192	109	80	712
120-179 DPD	225	77	320	2	27	651
180+ DPD	822	213	1	—	20	1,056
Government insured/guaranteed loans (1)	12,688	—	—	—	—	12,688
Loans held at fair value	244	—	—	—	—	244
Total consumer loans (excluding PCI)	280,077	34,381	39,025	45,069	36,148	434,700
Total consumer PCI loans (carrying value) (2)	4,988	17	—	—	—	5,005
Total consumer loans	\$ 285,065	34,398	39,025	45,069	36,148	439,705

(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 \$7.0 billion at March 31, 2019, compared with \$7.7 billion at December 31, 2018.

(2) 19% of the adjusted unpaid principal balance for consumer PCI loans are 30+ DPD at March 31, 2019, compared with 18% at December 31, 2018.

Of the \$2.2 billion of consumer loans not government insured/guaranteed that are 90 days or more past due at March 31, 2019, \$807 million was accruing, compared with \$2.4 billion past due and \$885 million accruing at December 31, 2018.

Real estate 1-4 family first mortgage loans 180 days or more past due totaled \$683 million, or 0.2% of total first mortgages (excluding PCI), at March 31, 2019, compared with \$822 million, or 0.3%, at December 31, 2018.

Note 6: Loans and Allowance for Credit Losses (continued)

Table 6.11 provides a breakdown of our consumer portfolio by FICO. 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 \$8.7 billion at March 31, 2019, and \$8.9 billion at December 31, 2018.

Table 6.11: Consumer Loans by FICO

(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
March 31, 2019						
By FICO:						
< 600	\$ 4,106	1,410	3,150	6,907	685	16,258
600-639	2,843	979	2,615	4,412	690	11,539
640-679	5,813	1,829	6,173	6,209	1,752	21,776
680-719	13,406	3,775	9,206	7,279	3,265	36,931
720-759	26,943	5,130	7,769	6,795	4,235	50,872
760-799	56,626	5,967	5,082	5,958	5,261	78,894
800+	154,956	12,724	3,759	7,239	8,242	186,920
No FICO available	4,477	1,269	525	114	2,371	8,756
FICO not required	—	—	—	—	8,686	8,686
Government insured/guaranteed loans (1)	12,191	—	—	—	—	12,191
Total consumer loans (excluding PCI)	281,361	33,083	38,279	44,913	35,187	432,823
Total consumer PCI loans (carrying value) (2)	3,184	16	—	—	—	3,200
Total consumer loans	\$ 284,545	33,099	38,279	44,913	35,187	436,023
December 31, 2018						
By FICO:						
< 600	\$ 4,273	1,454	3,292	7,071	697	16,787
600-639	2,974	994	2,777	4,431	725	11,901
640-679	5,810	1,898	6,464	6,225	1,822	22,219
680-719	13,568	3,908	9,445	7,354	3,384	37,659
720-759	27,258	5,323	7,949	6,853	4,395	51,778
760-799	57,193	6,315	5,227	5,947	5,322	80,004
800+	151,465	13,190	3,794	7,099	8,411	183,959
No FICO available	4,604	1,299	77	89	2,507	8,576
FICO not required	—	—	—	—	8,885	8,885
Government insured/guaranteed loans (1)	12,932	—	—	—	—	12,932
Total consumer loans (excluding PCI)	280,077	34,381	39,025	45,069	36,148	434,700
Total consumer PCI loans (carrying value) (2)	4,988	17	—	—	—	5,005
Total consumer loans	\$ 285,065	34,398	39,025	45,069	36,148	439,705

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

(2) 43% of the adjusted unpaid principal balance for consumer PCI loans have FICO scores less than 680 and 13% where no FICO is available to us at March 31, 2019, compared with 45% and 15%, respectively, at December 31, 2018.

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 6.12 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 6.12: Consumer Loans by LTV/CLTV

(in millions)	March 31, 2019			December 31, 2018		
	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%	\$ 145,143	15,156	160,299	147,666	15,753	163,419
60.01-80%	105,991	10,784	116,775	104,477	11,183	115,660
80.01-100%	15,477	4,725	20,202	12,372	4,874	17,246
100.01-120% (1)	1,184	1,482	2,666	1,211	1,596	2,807
> 120% (1)	472	550	1,022	484	578	1,062
No LTV/CLTV available	903	386	1,289	935	397	1,332
Government insured/guaranteed loans (2)	12,191	—	12,191	12,932	—	12,932
Total consumer loans (excluding PCI)	281,361	33,083	314,444	280,077	34,381	314,458
Total consumer PCI loans (carrying value) (3)	3,184	16	3,200	4,988	17	5,005
Total consumer loans	\$ 284,545	33,099	317,644	285,065	34,398	319,463

(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.

(3) 10% of the adjusted unpaid principal balance for consumer PCI loans have LTV/CLTV amounts greater than 80% at both March 31, 2019 and December 31, 2018.

NONACCRUAL LOANS Table 6.13 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 6.13: Nonaccrual Loans

(in millions)	Mar 31, 2019	Dec 31, 2018
Commercial:		
Commercial and industrial	\$ 1,986	1,486
Real estate mortgage	699	580
Real estate construction	36	32
Lease financing	76	90
Total commercial	2,797	2,188
Consumer:		
Real estate 1-4 family first mortgage	3,026	3,183
Real estate 1-4 family junior lien mortgage	916	945
Automobile	116	130
Other revolving credit and installment	50	50
Total consumer	4,108	4,308
Total nonaccrual loans (excluding PCI)	\$ 6,905	6,496

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 \$4.2 billion and \$4.6 billion at March 31, 2019 and December 31, 2018, respectively, which included \$3.0 billion and \$3.2 billion, respectively, of loans that are government insured/guaranteed. Under the Consumer Financial Protection Bureau guidelines, we do not commence the foreclosure process on consumer real estate loans until after the loan is 120 days delinquent. 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 6: 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 \$243 million at March 31, 2019, and \$370 million at December 31, 2018, are not included in past due and still accruing loans even when they are 90 days or more contractually past due. 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 6.14 shows non-PCI loans 90 days or more past due and still accruing by class for loans not government insured/guaranteed.

Table 6.14: Loans 90 Days or More Past Due and Still Accruing (1)

(in millions)	Mar 31, 2019	Dec 31, 2018
Total (excluding PCI):	\$ 7,870	8,704
Less: FHA insured/VA guaranteed (1)	6,996	7,725
Total, not government insured/ guaranteed	\$ 874	979
By segment and class, not government insured/ guaranteed:		
Commercial:		
Commercial and industrial	\$ 42	43
Real estate mortgage	20	51
Real estate construction	5	—
Total commercial	67	94
Consumer:		
Real estate 1-4 family first mortgage	117	124
Real estate 1-4 family junior lien mortgage	28	32
Credit card	502	513
Automobile	68	114
Other revolving credit and installment	92	102
Total consumer	807	885
Total, not government insured/ guaranteed	\$ 874	979

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

IMPAIRED LOANS Table 6.15 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 6.15 includes trial modifications that totaled \$136 million at March 31, 2019, and \$149 million at December 31, 2018.

For additional information on our impaired loans and allowance for credit losses, see Note 1 (Summary of Significant Accounting Policies) in our 2018 Form 10-K.

Table 6.15: Impaired Loans Summary

(in millions)	Unpaid principal balance (1)	Recorded investment		
		Impaired loans	Impaired loans with related allowance for credit losses	Related allowance for credit losses
March 31, 2019				
Commercial:				
Commercial and industrial	\$ 3,493	2,569	2,271	364
Real estate mortgage	1,310	1,126	1,071	161
Real estate construction	87	56	56	10
Lease financing	119	96	96	30
Total commercial	5,009	3,847	3,494	565
Consumer:				
Real estate 1-4 family first mortgage	11,953	10,440	4,354	526
Real estate 1-4 family junior lien mortgage	1,843	1,658	1,093	181
Credit card	474	473	473	188
Automobile	145	85	42	8
Other revolving credit and installment	164	157	138	42
Total consumer (2)	14,579	12,813	6,100	945
Total impaired loans (excluding PCI)	\$ 19,588	16,660	9,594	1,510
December 31, 2018				
Commercial:				
Commercial and industrial	\$ 3,057	2,030	1,730	319
Real estate mortgage	1,228	1,032	1,009	154
Real estate construction	74	47	46	9
Lease financing	146	112	112	32
Total commercial	4,505	3,221	2,897	514
Consumer:				
Real estate 1-4 family first mortgage	12,309	10,738	4,420	525
Real estate 1-4 family junior lien mortgage	1,886	1,694	1,133	183
Credit card	449	449	449	172
Automobile	153	89	43	8
Other revolving credit and installment	162	156	136	41
Total consumer (2)	14,959	13,126	6,181	929
Total impaired loans (excluding PCI)	\$ 19,464	16,347	9,078	1,443

(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 \$1.3 billion at both March 31, 2019 and December 31, 2018, 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 6: Loans and Allowance for Credit Losses (continued)

Commitments to lend additional funds on loans whose terms have been modified in a TDR amounted to \$570 million and \$513 million at March 31, 2019 and December 31, 2018, respectively.

Table 6.16 provides the average recorded investment in impaired loans and the amount of interest income recognized on impaired loans by portfolio segment and class.

Table 6.16: Average Recorded Investment in Impaired Loans

(in millions)	Quarter ended March 31,			
	2019		2018	
	Average recorded investment	Recognized interest income	Average recorded investment	Recognized interest income
Commercial:				
Commercial and industrial	\$ 2,346	23	2,404	36
Real estate mortgage	1,055	15	1,244	28
Real estate construction	52	2	58	1
Lease financing	108	—	129	—
Total commercial	3,561	40	3,835	65
Consumer:				
Real estate 1-4 family first mortgage	10,624	153	12,073	172
Real estate 1-4 family junior lien mortgage	1,679	26	1,889	29
Credit card	461	15	370	10
Automobile	87	4	85	3
Other revolving credit and installment	156	4	133	2
Total consumer	13,007	202	14,550	216
Total impaired loans (excluding PCI)	\$ 16,568	242	18,385	281
Interest income:				
Cash basis of accounting		\$ 59		81
Other (1)		183		200
Total interest income		\$ 242		281

(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 \$15.3 billion and \$15.5 billion at March 31, 2019 and December 31, 2018, 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 6.17 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 6.17: 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 March 31, 2019							
Commercial:							
Commercial and industrial	\$ —	11	554	565	13	0.68%	\$ 11
Real estate mortgage	—	2	73	75	—	0.95	2
Real estate construction	—	—	3	3	—	—	—
Lease financing	—	—	—	—	—	—	—
Total commercial	—	13	630	643	13	0.73	13
Consumer:							
Real estate 1-4 family first mortgage	35	3	294	332	1	1.95	19
Real estate 1-4 family junior lien mortgage	2	11	25	38	1	2.29	12
Credit card	—	97	—	97	—	13.20	97
Automobile	2	1	12	15	6	5.38	1
Other revolving credit and installment	—	11	3	14	—	7.58	11
Trial modifications (6)	—	—	—	—	—	—	—
Total consumer	39	123	334	496	8	10.27	140
Total	\$ 39	136	964	1,139	21	9.44%	\$ 153
Quarter ended March 31, 2018							
Commercial:							
Commercial and industrial	\$ —	9	488	497	6	1.07%	\$ 9
Real estate mortgage	—	6	98	104	—	1.24	6
Real estate construction	—	—	3	3	—	—	—
Lease financing	—	—	39	39	—	—	—
Total commercial	—	15	628	643	6	1.15	15
Consumer:							
Real estate 1-4 family first mortgage	46	10	306	362	1	2.40	35
Real estate 1-4 family junior lien mortgage	1	8	28	37	1	2.22	9
Credit card	—	86	—	86	—	11.32	86
Automobile	1	4	14	19	9	6.48	4
Other revolving credit and installment	—	15	2	17	—	7.94	15
Trial modifications (6)	—	—	15	15	—	—	—
Total consumer	48	123	365	536	11	8.20	149
Total	\$ 48	138	993	1,179	17	7.55%	\$ 164

- (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 \$360 million and \$503 million for the quarters ended March 31, 2019 and 2018, 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 \$3 million for both of the quarters ended March 31, 2019 and 2018.
- (5) Reflects the effect of reduced interest rates on loans with an interest rate concession as one of its concession types, which includes loans reported as a principal primary 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.

Note 6: Loans and Allowance for Credit Losses (continued)

Table 6.18 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 6.18: Defaulted TDRs

(in millions)	Recorded investment of defaults	
	Quarter ended March 31,	
	2019	2018
Commercial:		
Commercial and industrial	\$ 23	86
Real estate mortgage	28	26
Real estate construction	3	—
Total commercial	54	112
Consumer:		
Real estate 1-4 family first mortgage	11	18
Real estate 1-4 family junior lien mortgage	5	5
Credit card	21	13
Automobile	3	3
Other revolving credit and installment	2	1
Total consumer	42	40
Total	\$ 96	152

Purchased Credit-Impaired Loans

Table 6.19 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 6.19: PCI Loans

(in millions)	Mar 31, 2019	Dec 31, 2018
Total commercial	\$ —	4
Consumer:		
Real estate 1-4 family first mortgage	3,184	4,988
Real estate 1-4 family junior lien mortgage	16	17
Total consumer	3,200	5,005
Total PCI loans (carrying value)	\$ 3,200	5,009
Total PCI loans (unpaid principal balance)	\$ 4,765	7,348

Note 7: Leasing Activity

The information below provides a summary of our leasing activities as a lessor and lessee.

As a Lessor

Table 7.1 presents the composition of our leasing revenue and Table 7.2 provides the components of our investment in lease financing.

Table 7.1: Leasing Revenue

(in millions)	Quarter ended March 31, 2019
Interest income on lease financing	\$ 223
Variable revenues on lease financing	24
Total lease financing revenue	247
Fixed revenues on operating leases	373
Variable revenues on operating leases	18
Total operating lease revenue	391
Other lease-related revenues (1)	28
Total lease revenue	\$ 666

(1) Predominantly includes net gains on disposition of lease assets

Table 7.2: Investment in Lease Financing

(in millions)	Mar 31, 2019
Lease receivables	\$ 17,640
Residual asset values	4,169
Unearned income	(2,687)
Lease financing	\$ 19,122

Our net investment in financing and sales-type leases includes \$2.0 billion of leveraged leases at March 31, 2019.

As shown in Table 9.1, included in Note 9 (Other Assets), we had \$8.8 billion in operating lease assets at March 31, 2019, which was net of \$3.2 billion of accumulated depreciation. Depreciation expense for the lease assets was \$229 million for first quarter 2019. Dispositions of operating lease assets for first quarter 2019, resulted in net gains of \$14 million, included in lease income.

Table 7.3 presents future lease payments owed by our lessees.

Table 7.3: Maturities of Lease Receivables

	March 31, 2019	
(in millions)	Direct financing and sales- type leases	Operating leases
Remainder of 2019	\$ 4,143	953
2020	4,866	862
2021	3,698	568
2022	1,857	385
2023	1,035	252
Thereafter	2,041	581
Total lease receivables	\$ 17,640	3,601

As a Lessee

Substantially all of our leases are operating leases. Table 7.4 presents balances for our operating leases.

Table 7.4: Operating Lease Right of Use (ROU) Assets and Lease Liabilities

(in millions)	Mar 31, 2019
ROU assets	\$ 4,869
Lease liabilities	5,405

Table 7.5 provides the composition of our lease costs.

Table 7.5: Lease Costs

(in millions)	Quarter ended March 31, 2019
Fixed lease expense - operating leases	297
Variable lease expense	73
Other (1)	(8)
Total lease costs	\$ 362

(1) Predominantly includes sublease rental income and gains recognized from sale leaseback transactions

Note 7: Leasing Activity (continued)

Tables 7.6 and 7.7 provide the future lease payments under operating leases as of December 31, 2018 and March 31, 2019, respectively. Table 7.7 also includes information on the remaining average lease term and discount rate.

Table 7.6: Lease Payments on Operating Leases Prior to Adoption of ASU 2016-02 - Leases

(in millions)	December 31, 2018
2019	\$ 1,174
2020	1,056
2021	880
2022	713
2023	577
Thereafter	1,654
Total	\$ 6,054

Table 7.7: Lease Payments on Operating Leases Subsequent to Adoption of ASU 2016-02 - Leases

(in millions, except for weighted averages)	March 31, 2019
Remainder of 2019	\$ 777
2020	1,123
2021	942
2022	770
2023	628
Thereafter	1,936
Total lease payments	6,176
Less: imputed interest	771
Total operating lease liabilities	\$ 5,405
Weighted average remaining lease term (in years)	7.3
Weighted average discount rate	3.2%

Our operating leases predominantly expire within the next 15 years, with the longest lease expiring in 2105. We do not include renewal or termination options in the establishment of the lease term when we are not reasonably certain that we will exercise them. As of March 31, 2019, we had additional operating leases commitments of \$164 million, predominantly for real estate, which leases had not yet commenced. These leases will commence by 2022 and have lease terms of 1 year to 11 years.

Note 8: Equity Securities

Table 8.1 provides a summary of our equity securities by business purpose and accounting method, including equity securities with readily determinable fair values (marketable) and those without readily determinable fair values (nonmarketable).

Table 8.1: Equity Securities

(in millions)	Mar 31, 2019	Dec 31, 2018
Held for trading at fair value:		
Marketable equity securities	\$ 20,933	19,449
Not held for trading:		
Fair value:		
Marketable equity securities (1)	5,135	4,513
Nonmarketable equity securities (2)	6,518	5,594
Total equity securities at fair value	11,653	10,107
Equity method:		
Low-income housing tax credit investments	10,925	10,999
Private equity	3,890	3,832
Tax-advantaged renewable energy	3,041	3,073
New market tax credit and other	305	311
Total equity method	18,161	18,215
Other:		
Federal Reserve Bank stock and other at cost (3)	5,732	5,643
Private equity (4)	1,961	1,734
Total equity securities not held for trading	37,507	35,699
Total equity securities	\$ 58,440	55,148

- (1) Includes \$3.5 billion and \$3.2 billion at March 31, 2019, and December 31, 2018, respectively, related to securities held as economic hedges of our deferred compensation plan obligations.
- (2) Includes \$6.4 billion and \$5.5 billion at March 31, 2019, and December 31, 2018, respectively, related to investments for which we elected the fair value option. See Note 16 (Fair Value of Assets and Liabilities) for additional information.
- (3) Includes \$5.7 billion and \$5.6 billion at March 31, 2019 and December 31, 2018, respectively, related to investments in Federal Reserve Bank and Federal Home Loan Bank stock.
- (4) Represents nonmarketable equity securities for which we have elected to account for the security under the measurement alternative.

Equity Securities Held for Trading

Equity securities held for trading purposes are marketable equity securities traded on organized exchanges. These securities are held as part of our customer accommodation trading activities. For more information on these activities, see Note 4 (Trading Activities).

Equity Securities Not Held for Trading

We also hold equity securities unrelated to trading activities. These securities include private equity and tax credit investments, securities held as economic hedges or to meet regulatory requirements (for example, Federal Reserve Bank and Federal Home Loan Bank stock). Equity securities not held for trading purposes are accounted for at either fair value, equity method, cost or the measurement alternative.

FAIR VALUE Marketable equity securities held for purposes other than trading primarily consist of exchange-traded equity funds held to economically hedge obligations related to our deferred compensation plans and to a lesser extent other holdings of publicly traded equity securities held for investment purposes. We have elected to account for certain nonmarketable equity securities under the fair value method, and substantially all of these securities are economically hedged with equity derivatives.

EQUITY METHOD Our equity method investments consist of tax credit and private equity investments, the majority of which are our low-income housing tax credit (LIHTC) investments.

We invest in affordable housing projects that qualify for the LIHTC, which are designed to promote private development of low-income housing. These investments generate a return mostly through realization of federal tax credit and other tax benefits. In first quarter 2019, we recognized pre-tax losses of \$273 million related to our LIHTC investments, compared with \$280 million in first quarter 2018. These losses were recognized in other noninterest income. We also recognized total tax benefits of \$370 million in first quarter 2019, which included tax credits recorded to income taxes of \$302 million. In first quarter 2018, total tax benefits were \$359 million, which included tax credits of \$290 million. We are periodically required to provide additional financial support during the investment period. A liability is recognized for unfunded commitments that are both legally binding and probable of funding. These commitments are predominantly funded within three years of initial investment. Our liability for these unfunded commitments was \$3.7 billion at March 31, 2019, and \$3.6 billion at December 31, 2018. This liability for unfunded commitments is included in long-term debt.

OTHER The remaining portion of our nonmarketable equity securities portfolio consists of securities accounted for using the cost or measurement alternative method.

Note 8: Equity Securities (continued)

Realized Gains and Losses

Table 8.2 provides a summary of the net gains and losses for equity securities not held for trading. Gains and losses for securities held for trading are reported in net gains from trading activities.

Table 8.2: Net Gains (Losses) from Equity Securities Not Held for Trading

(in millions)	Quarter ended March 31,	
	2019	2018
Net gains (losses) from equity securities carried at fair value:		
Marketable equity securities	\$ 377	8
Nonmarketable equity securities	936	109
Total equity securities carried at fair value	1,313	117
Net gains (losses) from nonmarketable equity securities not carried at fair value:		
Impairment write-downs	(36)	(20)
Net unrealized gains related to measurement alternative observable transactions	185	228
Net realized gains on sale	237	498
All other	—	18
Total nonmarketable equity securities not carried at fair value	386	724
Net losses from economic hedge derivatives (1)	(885)	(58)
Total net gains from equity securities	\$ 814	783

(1) Includes net gains (losses) on derivatives not designated as hedging instruments.

Measurement Alternative

Table 8.3 provides additional information about the impairment write-downs and observable price adjustments related to

nonmarketable equity securities accounted for under the measurement alternative. Gains and losses related to these adjustments are also included in Table 8.2.

Table 8.3: Net Gains (Losses) from Measurement Alternative Equity Securities

(in millions)	Quarter ended March 31,	
	2019	2018
Net gains (losses) recognized in earnings during the period:		
Gross unrealized gains due to observable price changes	\$ 185	228
Impairment write-downs	(22)	(7)
Realized net gains from sale	23	75
Total net gains recognized during the period	\$ 186	296

Table 8.4 presents cumulative carrying value adjustments to nonmarketable equity securities accounted for under the measurement alternative that were still held as of the balance sheet date.

Table 8.4: Measurement Alternative Cumulative Gains (Losses)

(in millions)	Mar 31,	Dec 31,
	2019	2018
Cumulative gains (losses):		
Gross unrealized gains due to observable price changes	\$ 577	415
Gross unrealized losses due to observable price changes	(25)	(25)
Impairment write-downs	(55)	(33)

Note 9: Other Assets

Table 9.1 presents the components of other assets.

Table 9.1: Other Assets

(in millions)	Mar 31, 2019	Dec 31, 2018
Corporate/bank-owned life insurance	\$ 19,842	19,751
Accounts receivable (1)	32,405	34,281
Interest receivable	6,277	6,084
Customer relationship and other amortized intangibles	508	545
Foreclosed assets:		
Residential real estate:		
Government insured/guaranteed (1)	75	88
Non-government insured/guaranteed	229	229
Non-residential real estate	132	134
Operating lease assets (lessor)	8,793	9,036
Operating lease ROU assets (lessee) (2)	4,869	—
Due from customers on acceptances	243	258
Other	9,294	9,444
Total other assets	\$ 82,667	79,850

- (1) 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 2018 Form 10-K.
- (2) We recognized operating lease right of use (ROU) assets effective January 1, 2019, in connection with the adoption of ASU 2016-02 – Leases. For more information, see Note 1 (Summary of Significant Accounting Policies) in this Report.

Note 10: Securitizations and Variable Interest Entities

Involvement with Special Purpose Entities (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 9 (Securitizations and Variable Interest Entities) to Financial Statements in our 2018 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 10.1 provides the classifications of assets and liabilities in our balance sheet for our transactions with VIEs.

Table 10.1: 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
March 31, 2019				
Cash and due from banks	\$ —	16	—	16
Interest-earning deposits with banks	—	8	—	8
Debt securities:				
Trading debt securities	1,848	55	200	2,103
Available-for-sale debt securities (1)	2,063	—	248	2,311
Held-to-maturity debt securities	524	—	—	524
Loans	1,398	14,368	91	15,857
Mortgage servicing rights	13,515	—	—	13,515
Derivative assets	74	—	—	74
Equity securities	10,973	112	—	11,085
Other assets	—	252	6	258
Total assets	30,395	14,811	545	45,751
Short-term borrowings	—	—	427	427
Derivative liabilities	6	— (2)	—	6
Accrued expenses and other liabilities	198	205 (2)	7	410
Long-term debt	3,750	775 (2)	90	4,615
Total liabilities	3,954	980	524	5,458
Noncontrolling interests	—	31	—	31
Net assets	\$ 26,441	13,800	21	40,262
December 31, 2018				
Cash and due from banks	\$ —	139	—	139
Interest-earning deposits with banks	—	8	—	8
Debt securities:				
Trading debt securities	2,110	45	200	2,355
Available-for-sale debt securities (1)	2,686	—	317	3,003
Held-to-maturity debt securities	510	—	—	510
Loans	1,433	13,564	94	15,091
Mortgage servicing rights	14,761	—	—	14,761
Derivative assets	53	—	—	53
Equity securities	11,041	85	—	11,126
Other assets	—	221	6	227
Total assets	32,594	14,062	617	47,273
Short-term borrowings	—	—	493	493
Derivative liabilities	26	— (2)	—	26
Accrued expenses and other liabilities	231	191 (2)	8	430
Long-term debt	3,870	816 (2)	93	4,779
Total liabilities	4,127	1,007	594	5,728
Noncontrolling interests	—	34	—	34
Net assets	\$ 28,467	13,021	23	41,511

(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 debt and equity securities, loans, MSRs, derivative assets and liabilities, other assets, other liabilities, and long-term debt, as appropriate.

Table 10.2 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 10.2: 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
March 31, 2019						
Residential mortgage loan securitizations:						
Conforming (2)	\$ 1,145,791	2,146	12,574	—	(137)	14,583
Other/nonconforming	9,582	27	60	—	—	87
Commercial mortgage securitizations	153,770	2,193	881	17	(41)	3,050
Collateralized debt obligations:						
Debt securities	641	—	—	4	(20)	(16)
Asset-based finance structures	283	173	—	—	—	173
Tax credit structures	36,135	12,009	—	—	(3,750)	8,259
Collateralized loan obligations	203	4	—	—	—	4
Investment funds	204	47	—	—	—	47
Other (3)	1,648	207	—	47	—	254
Total	\$ 1,348,257	16,806	13,515	68	(3,948)	26,441
Maximum exposure to loss						
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Total exposure
Residential mortgage loan securitizations:						
Conforming		\$ 2,146	12,574	—	1,101	15,821
Other/nonconforming		27	60	—	—	87
Commercial mortgage securitizations		2,193	881	27	11,795	14,896
Collateralized debt obligations:						
Debt securities		—	—	4	20	24
Asset-based finance structures		173	—	—	72	245
Tax credit structures		12,009	—	—	1,426	13,435
Collateralized loan obligations		4	—	—	—	4
Investment funds		47	—	—	—	47
Other (3)		207	—	48	157	412
Total	\$	16,806	13,515	79	14,571	44,971

(continued on following page)

Note 10: Securitizations and Variable Interest Entities (continued)

(continued from previous page)

(in millions)	Total VIE assets	Carrying value – asset (liability)					Net assets
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees		
December 31, 2018							
Residential mortgage loan securitizations:							
Conforming (2)	\$ 1,172,833	2,377	13,811	—	(171)	16,017	
Other/nonconforming	10,596	453	57	—	—	510	
Commercial mortgage securitizations	153,350	2,409	893	(22)	(40)	3,240	
Collateralized debt obligations:							
Debt securities	659	—	—	5	(20)	(15)	
Asset-based finance structures	304	205	—	—	—	205	
Tax credit structures	35,185	12,087	—	—	(3,870)	8,217	
Collateralized loan obligations	2	—	—	—	—	—	
Investment funds	185	42	—	—	—	42	
Other (3)	1,688	207	—	44	—	251	
Total	\$ 1,374,802	17,780	14,761	27	(4,101)	28,467	
Maximum exposure to loss							
		Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Total exposure	
Residential mortgage loan securitizations:							
Conforming	\$	2,377	13,811	—	1,183	17,371	
Other/nonconforming		453	57	—	—	510	
Commercial mortgage securitizations		2,409	893	28	11,563	14,893	
Collateralized debt obligations:							
Debt securities		—	—	5	20	25	
Asset-based finance structures		205	—	—	71	276	
Tax credit structures		12,087	—	—	1,420	13,507	
Collateralized loan obligations		—	—	—	—	—	
Investment funds		42	—	—	—	42	
Other (3)		207	—	45	158	410	
Total	\$	17,780	14,761	78	14,415	47,034	

- (1) Includes total equity interests of \$11.0 billion at both March 31, 2019, and December 31, 2018. 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 \$578 million and \$1.2 billion at March 31, 2019, and December 31, 2018, respectively, for certain delinquent loans that are eligible for repurchase from GNMA loan securitizations. 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) Includes structured financing and credit-linked note structures.

In Table 10.2, “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 9 (Securitizations and Variable Interest Entities) to Financial Statements in our 2018 Form 10-K.

INVESTMENT 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 was \$10 million and \$13 million in first quarter 2019 and 2018, respectively.

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 we reported the debt securities issued to the VIEs as long-term junior subordinated debt with a carrying value of \$2.0 billion and the preferred equity securities issued to the VIEs as preferred stock with a carrying value of \$2.5 billion at both March 31, 2019 and December 31, 2018. These amounts are in addition to the involvements in these VIEs included in the preceding table.

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 10.3 presents the cash flows for our transfers accounted for as sales in which we have continuing involvement with the transferred financial assets.

Table 10.3: Cash Flows From Sales and Securitization Activity

(in millions)	Mortgage loans	
	2019	2018
Quarter ended March 31,		
Proceeds from securitizations and whole loan sales	\$ 36,507	50,587
Fees from servicing rights retained	780	845
Cash flows from other interests held (1)	111	185
Repurchases of assets/loss reimbursements (2):		
Non-agency securitizations and whole loan transactions	—	1
Agency securitizations (3)	17	33
Servicing advances, net of repayments	(39)	(36)

(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. First quarter 2019 and 2018 exclude \$1.9 billion and \$2.9 billion, respectively, in delinquent insured/guaranteed loans that we service and have exercised our option to purchase out of GNMA pools. These loans are predominantly insured by the FHA or guaranteed by the VA.

In first quarter 2019 and 2018, we recognized net gains of \$61 million and \$58 million, respectively, from transfers accounted for as sales of financial assets, in which we have continuing involvement with the transferred assets. The first quarter 2018 net gain was revised from the amount previously reported to exclude transfers for which we do not have continuing involvement. These net gains predominantly relate to commercial mortgage securitizations, and residential mortgage securitizations where the loans were not already carried at fair value.

Sales with continuing involvement during first quarter 2019 and 2018 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 first quarter 2019 and 2018, we transferred \$34.1 billion and \$47.3 billion, respectively, in fair value of residential mortgages to unconsolidated VIEs and third-party investors and recorded the transfers as sales. 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 first quarter 2019, we recorded a \$320 million servicing asset, measured at fair value using a Level 3 measurement technique, securities of \$912 million, classified as Level 2, and a \$3 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 first quarter 2018, we recorded a \$533 million servicing asset, securities of \$3.8 billion, and a \$3 million liability.

Table 10.4 presents the key weighted-average assumptions we used to measure residential mortgage servicing rights at the date of securitization.

Table 10.4: Residential Mortgage Servicing Rights

	Residential mortgage servicing rights	
	2019	2018
Quarter ended March 31,		
Prepayment speed (1)	13.5%	9.6
Discount rate	8.1	7.3
Cost to service (\$ per loan) (2)	\$ 94	117

(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 first quarter 2019 and 2018, we transferred \$2.7 billion and \$3.1 billion, respectively, in carrying value of commercial mortgages to unconsolidated VIEs and third-party investors and recorded the transfers as sales. These transfers resulted in gains of \$47 million and \$69 million in first quarter 2019 and 2018, respectively, because the loans were carried at LOCOM. In connection with these transfers, in first quarter 2019, we recorded a servicing asset of \$26 million, initially measured at fair value using a Level 3 measurement technique, and no securities. In first quarter 2018, we recorded a servicing asset of \$34 million and no securities.

Note 10: Securitizations and Variable Interest Entities (continued)

Retained Interests from Unconsolidated VIEs

Table 10.5 provides key economic assumptions and the sensitivity of the current fair value of residential mortgage servicing rights and other interests held related to unconsolidated VIEs 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 10.5: Retained Interests from Unconsolidated VIEs

	Residential mortgage servicing rights (1)	Other interests held		
		Interest-only strips	Commercial (2)	
			Subordinated bonds	Senior bonds
(\$ in millions, except cost to service amounts)				
Fair value of interests held at March 31, 2019	\$ 13,336	15	679	295
Expected weighted-average life (in years)	5.9	3.5	6.9	5.5
Key economic assumptions:				
Prepayment speed assumption (3)	11.3%	18.2		
Decrease in fair value from:				
10% adverse change	\$ 542	1		
25% adverse change	1,280	1		
Discount rate assumption	7.6%	14.2	4.1	3.4
Decrease in fair value from:				
100 basis point increase	\$ 548	—	38	14
200 basis point increase	1,049	—	74	26
Cost to service assumption (\$ per loan)	103			
Decrease in fair value from:				
10% adverse change	290			
25% adverse change	723			
Credit loss assumption			4.5%	—
Decrease in fair value from:				
10% higher losses			\$ 2	—
25% higher losses			5	—
Fair value of interests held at December 31, 2018	\$ 14,649	16	668	309
Expected weighted-average life (in years)	6.5	3.6	7.0	5.7
Key economic assumptions:				
Prepayment speed assumption (3)	9.9%	17.7		
Decrease in fair value from:				
10% adverse change	\$ 530	1		
25% adverse change	1,301	1		
Discount rate assumption	8.1%	14.5	4.3	3.7
Decrease in fair value from:				
100 basis point increase	\$ 615	—	37	14
200 basis point increase	1,176	1	72	28
Cost to service assumption (\$ per loan)	106			
Decrease in fair value from:				
10% adverse change	316			
25% adverse change	787			
Credit loss assumption			5.1%	—
Decrease in fair value from:				
10% higher losses			\$ 2	—
25% higher losses			5	—

(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.

In addition to residential MSRs included in the previous table, we have a small portfolio of commercial MSRs with a fair value of \$2.1 billion and \$2.3 billion at March 31, 2019, and December 31, 2018, respectively. 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 March 31, 2019, and December 31, 2018, results in a decrease in fair value of \$292 million and \$320 million, respectively. See Note 11 (Mortgage Banking Activities) for further information on our commercial MSRs.

The sensitivities in the preceding paragraph 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 10.6 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 10.6: Off-Balance Sheet Loans Sold or Securitized

	Total loans		Delinquent loans and foreclosed assets (1)		Net charge-offs	
	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Quarter ended March 31,	
(in millions)	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	2019	2018
Commercial:						
Real estate mortgage	\$ 106,087	105,173	976	1,008	79	10
Total commercial	106,087	105,173	976	1,008	79	10
Consumer:						
Real estate 1-4 family first mortgage	1,061,759	1,097,128	7,988	8,947	67	116
Total consumer	1,061,759	1,097,128	7,988	8,947	67	116
Total off-balance sheet sold or securitized loans (2)	\$ 1,167,846	1,202,301	8,964	9,955	146	126

- (1) Includes \$550 million and \$675 million of commercial foreclosed assets and \$575 million and \$582 million of consumer foreclosed assets at March 31, 2019, and December 31, 2018, respectively.
(2) At March 31, 2019, and December 31, 2018, the table includes total loans of \$1.1 trillion at both dates, delinquent loans of \$5.8 billion and \$6.4 billion, and foreclosed assets of \$451 million and \$442 million, 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.

Note 10: Securitizations and Variable Interest Entities (continued)

Transactions with Consolidated VIEs and Secured Borrowings

Table 10.7 presents a summary of financial assets and liabilities for asset transfers accounted for as secured borrowings and involvements with consolidated VIEs. Carrying values of "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 10.7: Transactions with Consolidated VIEs and Secured Borrowings

(in millions)	Total VIE assets	Carrying value			
		Assets	Liabilities	Noncontrolling interests	Net assets
March 31, 2019					
Secured borrowings:					
Municipal tender option bond securitizations	\$ 562	454	(434)	—	20
Residential mortgage securitizations	91	91	(90)	—	1
Total secured borrowings	653	545	(524)	—	21
Consolidated VIEs:					
Commercial and industrial loans and leases	8,643	8,629	(491)	(12)	8,126
Nonconforming residential mortgage loan securitizations	1,556	1,362	(479)	—	883
Commercial real estate loans	4,622	4,622	—	—	4,622
Investment funds	185	185	(7)	(15)	163
Other	13	13	(3)	(4)	6
Total consolidated VIEs	15,019	14,811	(980)	(31)	13,800
Total secured borrowings and consolidated VIEs	\$ 15,672	15,356	(1,504)	(31)	13,821
December 31, 2018					
Secured borrowings:					
Municipal tender option bond securitizations	\$ 627	523	(501)	—	22
Residential mortgage securitizations	95	94	(93)	—	1
Total secured borrowings	722	617	(594)	—	23
Consolidated VIEs:					
Commercial and industrial loans and leases	8,215	8,204	(477)	(14)	7,713
Nonconforming residential mortgage loan securitizations	1,947	1,732	(521)	—	1,211
Commercial real estate loans	3,957	3,957	—	—	3,957
Investment funds	155	155	(5)	(15)	135
Other	14	14	(4)	(5)	5
Total consolidated VIEs	14,288	14,062	(1,007)	(34)	13,021
Total secured borrowings and consolidated VIEs	\$ 15,010	14,679	(1,601)	(34)	13,044

For complete descriptions of our accounting for transfers accounted for as secured borrowings and involvements with consolidated VIEs, see Note 9 (Securitizations and Variable Interest Entities) to Financial Statements in our 2018 Form 10-K.

Note 11: 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 MSR and the fair value method to residential MSR. Table 11.1 presents the changes in MSR measured using the fair value method.

Table 11.1: Analysis of Changes in Fair Value MSRs

(in millions)	Quarter ended March 31,	
	2019	2018
Fair value, beginning of period	\$ 14,649	13,625
Servicing from securitizations or asset transfers (1)	341	573
Sales and other (2)	(281)	(4)
Net additions	60	569
Changes in fair value:		
Due to changes in valuation model inputs or assumptions:		
Mortgage interest rates (3)	(940)	1,253
Servicing and foreclosure costs (4)	12	34
Discount rates (5)	100	—
Prepayment estimates and other (6)	(63)	43
Net changes in valuation model inputs or assumptions	(891)	1,330
Changes due to collection/realization of expected cash flows over time	(482)	(483)
Total changes in fair value	(1,373)	847
Fair value, end of period	\$ 13,336	15,041

- (1) Includes impacts associated with exercising our right to repurchase delinquent loans from GNMA loan securitization pools. Total reported MSR may increase upon repurchase due to servicing liabilities associated with these loans.
- (2) Includes sales and transfers of MSR, which can result in an increase of total reported MSR if the sales or transfers are related to nonperforming loan portfolios or portfolios with servicing liabilities.
- (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) Reflects discount rate assumption change, excluding portion attributable to changes in mortgage interest rates.
- (6) 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 11.2 presents the changes in amortized MSR.

Table 11.2: Analysis of Changes in Amortized MSRs

(in millions)	Quarter ended March 31,	
	2019	2018
Balance, beginning of period	\$ 1,443	1,424
Purchases	24	18
Servicing from securitizations or asset transfers	26	34
Amortization	(66)	(65)
Balance, end of period (1)	\$ 1,427	1,411
Fair value of amortized MSR:		
Beginning of period	\$ 2,288	2,025
End of period	2,149	2,307

- (1) Commercial amortized MSR 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 MSR.

Note 11: Mortgage Banking Activities (continued)

We present the components of our managed servicing portfolio in Table 11.3 at unpaid principal balance for loans serviced and subserviced for others and at book value for owned loans serviced.

Table 11.3: Managed Servicing Portfolio

(in billions)	Mar 31, 2019	Dec 31, 2018
Residential mortgage servicing:		
Serviced for others	\$ 1,125	1,164
Owned loans serviced	331	334
Subserviced for others	26	4
Total residential servicing	1,482	1,502
Commercial mortgage servicing:		
Serviced for others	552	543
Owned loans serviced	122	121
Subserviced for others	9	9
Total commercial servicing	683	673
Total managed servicing portfolio	\$ 2,165	2,175
Total serviced for others	\$ 1,677	1,707
Ratio of MSR to related loans serviced for others	0.88%	0.94

Table 11.4 presents the components of mortgage banking noninterest income.

Table 11.4: Mortgage Banking Noninterest Income

(in millions)	Quarter ended March 31,	
	2019	2018
Servicing income, net:		
Servicing fees:		
Contractually specified servicing fees	\$ 840	916
Late charges	33	44
Ancillary fees	38	40
Unreimbursed direct servicing costs (1)	(70)	(94)
Net servicing fees	841	906
Changes in fair value of MSR carried at fair value:		
Due to changes in valuation model inputs or assumptions (2)	(A) (891)	1,330
Changes due to collection/realization of expected cash flows over time	(482)	(483)
Total changes in fair value of MSR carried at fair value	(1,373)	847
Amortization	(66)	(65)
Net derivative gains (losses) from economic hedges (3)	(B) 962	(1,220)
Total servicing income, net	364	468
Net gains on mortgage loan origination/sales activities (4)	344	466
Total mortgage banking noninterest income	\$ 708	934
Market-related valuation changes to MSR, net of hedge results (2)(3)	(A)+(B) \$ 71	110

(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 MSR presented in Table 11.1 in this Note for more detail.

(3) Represents results from economic hedges used to hedge the risk of changes in fair value of MSR. See Note 15 (Derivatives) for additional discussion and detail.

(4) Includes losses of \$(151) million and gains of \$625 million for first quarter 2019 and 2018, respectively, related to derivatives used as economic hedges of mortgage loans held for sale and derivative loan commitments.

Note 12: Intangible Assets

Table 12.1 presents the gross carrying value of intangible assets and accumulated amortization.

Table 12.1: Intangible Assets

(in millions)	March 31, 2019			December 31, 2018		
	Gross carrying value	Accumulated amortization	Net carrying value	Gross carrying value	Accumulated amortization	Net carrying value
Amortized intangible assets (1):						
MSRs (2)	\$ 4,211	(2,784)	1,427	4,161	(2,718)	1,443
Core deposit intangibles	—	—	—	12,834	(12,834)	—
Customer relationship and other intangibles	3,937	(3,429)	508	3,994	(3,449)	545
Total amortized intangible assets	\$ 8,148	(6,213)	1,935	20,989	(19,001)	1,988
Unamortized intangible assets:						
MSRs (carried at fair value) (2)	\$ 13,336			14,649		
Goodwill	26,420			26,418		
Trademark	14			14		

- (1) Balances are excluded commencing in the period following full amortization.
(2) See Note 11 (Mortgage Banking Activities) for additional information on MSRs.

Table 12.2 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 March 31, 2019. Future amortization expense may vary from these projections.

Table 12.2: Amortization Expense for Intangible Assets

(in millions)	Amortized MSRs	Customer relationship and other intangibles	Total
Three months ended March 31, 2019 (actual)	\$ 66	30	96
Estimate for the remainder of 2019	\$ 202	85	287
Estimate for year ended December 31,			
2020	242	95	337
2021	206	81	287
2022	183	68	251
2023	154	59	213
2024	130	48	178

Table 12.3 shows the allocation of goodwill to our reportable operating segments.

Table 12.3: Goodwill

(in millions)	Community Banking	Wholesale Banking	Wealth and Investment Management	Consolidated Company
December 31, 2017	\$ 16,849	8,455	1,283	26,587
Reduction in goodwill related to divested businesses and other	(142)	—	—	(142)
March 31, 2018	\$ 16,707	8,455	1,283	26,445
December 31, 2018	\$ 16,685	8,450	1,283	26,418
Foreign currency translation	—	2	—	2
March 31, 2019	\$ 16,685	8,452	1,283	26,420

We assess goodwill for impairment at a reporting unit level, which is one level below the operating segments. See Note 22 (Operating Segments) for further information on management reporting.

Note 13: Guarantees, Pledged Assets and Collateral, and Other Commitments

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 similar arrangements. For

complete descriptions of our guarantees, see Note 15 (Guarantees, Pledged Assets and Collateral, and Other Commitments) to Financial Statements in our 2018 Form 10-K. Table 13.1 shows carrying value, maximum exposure to loss on our guarantees and the related non-investment grade amounts.

Table 13.1: Guarantees – Carrying Value and Maximum Exposure to Loss

(in millions)	Carrying value of obligation (asset)	Maximum exposure to loss						
		Expires in one year or less	Expires after one year through three years	Expires after three years through five years	Expires after five years	Total	Non-investment grade	
March 31, 2019								
Standby letters of credit (1)	\$ 38	14,919	7,276	3,609	465	26,269	7,941	
Securities lending and other indemnifications (2)	—	—	—	—	865	865	—	
Written put options (3)	(394)	12,392	10,025	3,119	359	25,895	14,808	
Loans and MLHFS sold with recourse (4)	53	109	660	1,160	10,420	12,349	9,168	
Factoring guarantees (5)	—	584	—	—	—	584	544	
Other guarantees	1	—	—	3	3,020	3,023	1	
Total guarantees	\$ (302)	28,004	17,961	7,891	15,129	68,985	32,462	
December 31, 2018								
Standby letters of credit (1)	\$ 40	14,636	7,897	3,398	497	26,428	8,027	
Securities lending and other indemnifications (2)	—	—	1	—	1,044	1,045	1	
Written put options (3)	(185)	17,243	10,502	3,066	400	31,211	21,732	
Loans and MLHFS sold with recourse (4)	54	104	653	1,207	10,163	12,127	9,079	
Factoring guarantees (5)	—	889	—	—	—	889	751	
Other guarantees	1	—	—	3	2,959	2,962	1	
Total guarantees	\$ (90)	32,872	19,053	7,674	15,063	74,662	39,591	

- (1) Total maximum exposure to loss includes direct pay letters of credit (DPLCs) of \$7.2 billion and \$7.5 billion at March 31, 2019, and December 31, 2018, respectively.
- (2) Includes indemnifications provided to certain third-party clearing agents. Outstanding customer obligations under these arrangements were \$75 million and \$70 million with related collateral of \$790 million and \$974 million at March 31, 2019, and December 31, 2018, respectively.
- (3) Written put options, which are in the form of derivatives, are also included in the derivative disclosures in Note 15 (Derivatives). Carrying value net asset position is a result of certain deferred premium option trades.
- (4) Represent recourse provided, predominantly to the GSEs, on loans sold under various programs and arrangements.
- (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 performance 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 6 (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 13.1 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.

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 Federal Home Loan Bank (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 13.2 provides the total carrying amount of pledged assets

by asset type and the fair value of pledged off-balance sheet securities for securities financings. The table excludes pledged consolidated VIE assets of \$14.8 billion and \$14.1 billion at March 31, 2019, and December 31, 2018, respectively, which can only be used to settle the liabilities of those entities. The table also excludes \$545 million and \$617 million in assets pledged in transactions with VIE's accounted for as secured borrowings at March 31, 2019, and December 31, 2018, respectively. See Note 10 (Securitizations and Variable Interest Entities) for additional information on consolidated VIE assets and secured borrowings.

Table 13.2: Pledged Assets

(in millions)	Mar 31, 2019	Dec 31, 2018
Related to trading activities:		
Debt securities	\$ 102,951	96,616
Equity securities	10,349	9,695
Total pledged assets related to trading activities (1)	113,300	106,311
Related to non-trading activities:		
Debt securities and other (2)	57,067	62,438
Mortgage loans held for sale and loans (3)	464,216	453,894
Total pledged assets related to non-trading activities	521,283	516,332
Total pledged assets	\$ 634,583	622,643

- (1) Consists of pledged assets related to trading activities of \$42.7 billion and \$45.5 billion at March 31, 2019, and December 31, 2018, respectively and off-balance sheet securities of \$70.6 billion and \$60.8 billion as of the same dates, respectively, that are pledged as collateral for repurchase agreements and other securities financings. Total pledged assets related to trading activities includes \$113.2 billion and \$106.2 billion at March 31, 2019, and December 31, 2018, respectively, under agreements that permit the secured parties to sell or repledge the collateral.
- (2) Includes carrying value of \$3.8 billion and \$4.2 billion (fair value of \$3.7 billion and \$4.1 billion) in collateral for repurchase agreements at March 31, 2019, and December 31, 2018, respectively, which are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Also includes \$56 million and \$68 million in collateral pledged under repurchase agreements at March 31, 2019, and December 31, 2018, respectively, that permit the secured parties to sell or repledge the collateral. Substantially all other pledged securities are pursuant to agreements that do not permit the secured party to sell or repledge the collateral.
- (3) Includes mortgage loans held for sale of \$1.0 billion and \$7.4 billion at March 31, 2019, and December 31, 2018, respectively. Substantially all of the total mortgage loans held for sale and loans are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Amounts exclude \$578 million and \$1.2 billion at March 31, 2019, and December 31, 2018, 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 SECURITIES FINANCING ACTIVITIES Table 13.3 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.

Note 13: Guarantees, Pledged Assets and Collateral, and Other Commitments (continued)

In addition to the amounts included in Table 13.3, we also have balance sheet netting related to derivatives that is disclosed in Note 15 (Derivatives).

Table 13.3: Offsetting – Securities Financing Activities

(in millions)	Mar 31, 2019	Dec 31, 2018
Assets:		
Resale and securities borrowing agreements		
Gross amounts recognized	\$ 135,549	112,662
Gross amounts offset in consolidated balance sheet (1)	(19,688)	(15,258)
Net amounts in consolidated balance sheet (2)	115,861	97,404
Collateral not recognized in consolidated balance sheet (3)	(115,063)	(96,734)
Net amount (4)	\$ 798	670
Liabilities:		
Repurchase and securities lending agreements		
Gross amounts recognized (5)	\$ 112,993	106,248
Gross amounts offset in consolidated balance sheet (1)	(19,688)	(15,258)
Net amounts in consolidated balance sheet (6)	93,305	90,990
Collateral pledged but not netted in consolidated balance sheet (7)	(93,095)	(90,798)
Net amount (8)	\$ 210	192

(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) Includes \$98.6 billion and \$80.1 billion classified on our consolidated balance sheet in federal funds sold and securities purchased under resale agreements at March 31, 2019, and December 31, 2018, respectively. Also includes securities purchased under long-term resale agreements (generally one year or more) classified in loans, which totaled \$17.3 billion at both March 31, 2019, and December 31, 2018.

(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 March 31, 2019, and December 31, 2018, we have received total collateral with a fair value of \$146.2 billion and \$123.1 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 \$70.9 billion at March 31, 2019, and \$60.8 billion at December 31, 2018.

(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 March 31, 2019, and December 31, 2018, we have pledged total collateral with a fair value of \$115.2 billion and \$108.8 billion, respectively, of which, the counterparty does not have the right to sell or repledge \$3.8 billion as of March 31, 2019 and \$4.4 billion as of December 31, 2018.

(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.

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 in various ways. Most of our collateral consists of highly liquid securities. In addition, we underwrite and monitor the financial strength of our counterparties, monitor the fair value of collateral pledged relative to contractually required repurchase amounts, and monitor that our collateral is properly returned through the clearing and settlement process in advance of our cash repayment. Table 13.4 provides the gross amounts recognized on the balance sheet (before the effects of offsetting) of our liabilities for repurchase and securities lending agreements disaggregated by underlying collateral type.

Table 13.4: Underlying Collateral Types of Gross Obligations

(in millions)	Mar 31, 2019	Dec 31, 2018
Repurchase agreements:		
Securities of U.S. Treasury and federal agencies	\$ 46,186	38,408
Securities of U.S. States and political subdivisions	61	159
Federal agency mortgage-backed securities	44,672	47,241
Non-agency mortgage-backed securities	1,767	1,875
Corporate debt securities	6,989	6,191
Asset-backed securities	2,337	2,074
Equity securities	1,033	992
Other	341	340
Total repurchases	103,386	97,280
Securities lending arrangements:		
Securities of U.S. Treasury and federal agencies	186	222
Federal agency mortgage-backed securities	—	2
Corporate debt securities	390	389
Equity securities (1)	9,011	8,349
Other	20	6
Total securities lending	9,607	8,968
Total repurchases and securities lending	\$ 112,993	106,248

(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 13.5 provides the contractual maturities of our gross obligations under repurchase and securities lending agreements.

Table 13.5: Contractual Maturities of Gross Obligations

(in millions)	Overnight/ continuous	Up to 30 days	30-90 days	>90 days	Total gross obligation
March 31, 2019					
Repurchase agreements	\$ 93,042	2,696	2,844	4,804	103,386
Securities lending arrangements	9,308	—	299	—	9,607
Total repurchases and securities lending (1)	\$ 102,350	2,696	3,143	4,804	112,993
December 31, 2018					
Repurchase agreements	\$ 86,574	3,244	2,153	5,309	97,280
Securities lending arrangements	8,669	—	299	—	8,968
Total repurchases and securities lending (1)	\$ 95,243	3,244	2,452	5,309	106,248

(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.

OTHER COMMITMENTS To meet the financing needs of our customers, we may enter into commitments to purchase debt and equity securities to provide capital for their funding, liquidity or other future needs. As of March 31, 2019, and December 31, 2018, we had commitments to purchase debt securities of \$224 million and \$335 million, respectively, and commitments to purchase equity securities of \$2.5 billion for both periods.

As part of maintaining our memberships in certain clearing organizations, we are required to stand ready to provide liquidity to sustain market clearing activity in the event unforeseen events occur or are deemed likely to occur. Certain of these obligations are guarantees of other members' performance and accordingly are included in Other guarantees in Table 13.1.

Also, we have commitments to purchase securities under resale agreements from central clearing organizations. We do not have any outstanding amounts funded, and the amount of our unfunded contractual commitments was \$9.7 billion and \$9.8 billion as of March 31, 2019, and December 31, 2018, respectively. Given the nature of these commitments, they are

excluded from Table 6.4 (Unfunded Credit Commitments) in Note 6 (Loans and Allowance for Credit Losses).

The Parent fully and unconditionally guarantees the payment of principal, interest, and any other amounts that may be due on securities that its 100% owned finance subsidiary, Wells Fargo Finance LLC, may issue. These guaranteed liabilities were \$229 million and \$5 million at March 31, 2019 and December 31, 2018, respectively. These guarantees rank on parity with all of the Parent's other unsecured and unsubordinated indebtedness.

Note 14: Legal Actions

Wells Fargo and certain of our subsidiaries are involved in a number of judicial, regulatory, governmental, arbitration, and other proceedings or investigations concerning matters arising from the conduct of our business activities, and many of those proceedings and investigations expose Wells Fargo to potential financial loss. These proceedings and investigations 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 that 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 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.

AUTOMOBILE LENDING MATTERS On April 20, 2018, the Company entered into consent orders with the Office of the Comptroller of the Currency (OCC) and the Consumer Financial Protection Bureau (CFPB) to resolve, among other things, investigations by the agencies into the Company's compliance risk management program and its past practices involving certain automobile collateral protection insurance (CPI) policies and, as

discussed below, certain mortgage interest rate lock extensions. The consent orders require remediation to customers and the payment of a total of \$1.0 billion in civil money penalties to the agencies. In July 2017, the Company announced a plan to remediate customers who may have been financially harmed due to issues related to automobile CPI policies purchased through a third-party vendor on their behalf. Multiple putative class action cases alleging, among other things, unfair and deceptive practices relating to these CPI policies, have been filed against the Company and consolidated into one multi-district litigation in the United States District Court for the Central District of California. The Company has reached an agreement in principle to resolve the multi-district litigation pursuant to which the Company has agreed to pay, consistent with its remediation obligations under the consent orders, approximately \$415 million in remediation to customers with CPI policies placed between October 15, 2005, and September 30, 2016. The settlement amount is not incremental to the Company's remediation obligations under the consent orders, but instead encompasses those obligations, including remediation payments to date. The settlement amount is subject to change as the Company finalizes its remediation activity under the consent orders. In addition, the Company has agreed to contribute \$1 million to a common fund for the class. The district court has set a preliminary approval hearing for June 3, 2019. The \$415 million amount of the agreement in principle was fully accrued as of March 31, 2019. A putative class of shareholders also filed a securities fraud class action against the Company and its executive officers alleging material misstatements and omissions of CPI-related information in the Company's public disclosures. Former team members have also alleged retaliation for raising concerns regarding automobile lending practices. In addition, the Company has identified certain issues related to the unused portion of guaranteed automobile protection (GAP) waiver or insurance agreements between the customer and dealer and, by assignment, the lender, which will result in remediation to customers in certain states. The Company is subject to a class action lawsuit in the United States District Court for the Central District of California alleging that customers are entitled to refunds in all states. Allegations related to the CPI and GAP programs are among the subjects of shareholder derivative lawsuits pending in federal and state court in California. The court dismissed the state court action in September 2018, but plaintiffs filed an amended complaint in November 2018. Subject to court approval, the parties to the state court action have entered into an agreement to resolve the action pursuant to which the Company will pay plaintiffs' attorneys' fees and undertake certain business and governance practices. These and other issues related to the origination, servicing, and collection of consumer automobile loans, including related insurance products, have also subjected the Company to formal or informal inquiries, investigations, or examinations from federal and state government agencies. In December 2018, the Company entered into an agreement with all 50 state Attorneys General and the District of Columbia to resolve an investigation into the Company's retail sales practices, CPI and GAP, and mortgage interest rate lock matters, pursuant to which the Company paid \$575 million.

CONSUMER DEPOSIT ACCOUNT RELATED REGULATORY INVESTIGATION The CFPB is conducting an investigation into whether customers were unduly harmed by the Company's historical practices associated with 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. A former team member has brought a state court action alleging retaliation for raising concerns about these practices.

FIDUCIARY AND CUSTODY ACCOUNT FEE CALCULATIONS

Federal government agencies are conducting formal or informal inquiries, investigations, or examinations regarding fee calculations within certain fiduciary and custody accounts in the Company's investment and fiduciary services business, which is part of the wealth management business within the Wealth and Investment Management (WIM) operating segment. The Company has determined that there have been instances of incorrect fees being applied to certain assets and accounts, resulting in both overcharges and undercharges to customers.

FOREIGN EXCHANGE BUSINESS Federal government agencies, including the United States Department of Justice (Department of Justice), are investigating or examining certain activities in the Company's foreign exchange business. The Company has begun providing remediation to customers that may have received pricing inconsistent with commitments made to those customers, and rebates to customers where historic pricing, while consistent with contracts entered into with those customers, does not conform to recently implemented pricing review standards for prior periods.

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 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 8 consecutive months. The district court granted final approval of the settlement, which was appealed to the United States Court of Appeals for the Second Circuit by settlement objector merchants. Other merchants opted out of the settlement and are pursuing several individual actions. On June 30, 2016, the

Second Circuit 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. The parties have entered into a settlement agreement to resolve the money damages class claims pursuant to which defendants will pay a total of approximately \$6.2 billion, which includes approximately \$5.3 billion of funds remaining from the 2012 settlement and \$900 million in additional funding. The Company's allocated responsibility for the additional funding is approximately \$94.5 million. The court granted preliminary approval of the settlement in January 2019, and scheduled a final approval hearing for November 7, 2019. Several of the opt-out and direct action 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 equitable relief class case.

LOW INCOME HOUSING TAX CREDITS Federal government agencies have undertaken formal or informal inquiries or investigations regarding the manner in which the Company purchased, and negotiated the purchase of, certain federal low income housing tax credits in connection with the financing of low income housing developments.

MORTGAGE BANKRUPTCY LOAN MODIFICATION

LITIGATION Plaintiffs, representing a putative class of mortgage borrowers who were debtors in Chapter 13 bankruptcy cases, filed a putative class action, *Cotton, et al. v. Wells Fargo, et al.*, against Wells Fargo & Company and Wells Fargo Bank, N.A. in the United States Bankruptcy Court for the Western District of North Carolina on June 7, 2017. Plaintiffs allege that Wells Fargo improperly and unilaterally modified the mortgages of borrowers who were debtors in Chapter 13 bankruptcy cases. Plaintiffs allege that Wells Fargo implemented these modifications by improperly filing mortgage payment change notices in Chapter 13 bankruptcy cases, in violation of bankruptcy rules and process. The amended complaint asserts claims based on, among other things, alleged fraud, violations of bankruptcy rules and laws, and unfair and deceptive trade practices. The amended complaint seeks monetary damages, attorneys' fees, and declaratory and injunctive relief. The parties have entered into a settlement agreement pursuant to which the Company will pay \$13.5 million to resolve the claims. The court granted final approval of the settlement on March 15, 2019.

MORTGAGE INTEREST RATE LOCK MATTERS On April 20, 2018, the Company entered into consent orders with the OCC and CFPB to resolve, among other things, investigations by the agencies into the Company's compliance risk management program and its past practices involving certain automobile CPI policies and certain mortgage interest rate lock extensions. The consent orders require remediation to customers and the payment of a total of \$1.0 billion in civil money penalties to the agencies. The Company was named in a putative class action, filed in the United States District Court for the Northern District of California, alleging violations of federal and state consumer fraud statutes relating to mortgage rate lock extension fees. The Company filed a motion to dismiss and the court granted the motion. Subsequently, a putative class action was filed in the

Note 14: Legal Actions (continued)

United States District Court for the District of Oregon, raising similar allegations. The Company filed a motion to dismiss this action and the court granted the motion. In addition, former team members have asserted claims, including in pending litigation, that they were terminated for raising concerns regarding mortgage interest rate lock extension practices. Allegations related to mortgage interest rate lock extension fees are also among the subjects of two shareholder derivative lawsuits filed in California state court. Subject to court approval, the Company has entered into an agreement to resolve the derivative lawsuits pursuant to which the Company will pay plaintiffs' attorneys' fees and undertake certain business and governance practices. This matter has also subjected the Company to formal or informal inquiries, investigations or examinations from other federal and state government agencies. In December 2018, the Company entered into an agreement with all 50 state Attorneys General and the District of Columbia to resolve an investigation into the Company's retail sales practices, CPI and GAP, and mortgage interest rate lock matters, pursuant to which the Company paid \$575 million.

MORTGAGE LOAN MODIFICATION LITIGATION Plaintiffs representing a putative class of mortgage borrowers have filed separate putative class actions, *Hernandez v. Wells Fargo, et al.*, and *Coordes v. Wells Fargo, et al.*, against Wells Fargo Bank, N.A. in the United States District Court for the Northern District of California and the United States District Court for the District of Washington, respectively. Plaintiffs allege that Wells Fargo improperly denied mortgage loan modifications or repayment plans to customers in the foreclosure process due to the overstatement of foreclosure attorneys' fees that were included for purposes of determining whether a customer in the foreclosure process qualified for a mortgage loan modification or repayment plan.

MORTGAGE-RELATED REGULATORY INVESTIGATIONS Federal and state government agencies, including the Department of Justice, have been investigating or examining certain mortgage related activities of Wells Fargo and predecessor institutions. Wells Fargo, for itself and for predecessor institutions, has responded, or 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. An agreement, pursuant to which the Company paid \$2.09 billion, was reached in August 2018 to resolve the Department of Justice investigation, which related to certain 2005-2007 residential mortgage-backed securities activities. In addition, the Company reached an agreement with the Attorney General of the State of Illinois in November 2018 pursuant to which the Company paid \$17 million in restitution to certain Illinois state pension funds to resolve a claim relating to certain residential mortgage-backed securities activities. 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 voluntary self-disclosures 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 (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 in October 2016, and Wells Fargo appealed this decision to the United States Court of Appeals for the Eleventh Circuit. In May 2018, the Eleventh Circuit ruled in Wells Fargo's favor and found that Wells Fargo had not waived its arbitration rights and remanded the case to the district court for further proceedings. Plaintiffs filed a petition for rehearing to the Eleventh Circuit, which was denied in August 2018. Plaintiffs petitioned for certiorari from the United States Supreme Court, and that petition was denied in January 2019. The case has returned to the district court for further proceedings.

RETAIL SALES PRACTICES MATTERS Federal, state, and local government agencies, including the Department of Justice, the United States Securities and Exchange Commission (SEC), and the United States Department of Labor; state attorneys general, including the New York Attorney General; and prosecutors' offices, as well as Congressional committees, have undertaken formal or informal inquiries, investigations or examinations arising out of certain retail sales practices of the Company that were the subject of settlements with the CFPB, the OCC, and the Office of the Los Angeles City Attorney announced by the Company on September 8, 2016. These matters are at varying stages. The Company has responded, and continues to respond, to requests from a number of the foregoing. In October 2018, the Company entered into an agreement to resolve the New York Attorney General's investigation pursuant to which the Company paid \$65 million to the State of New York. In December 2018, the Company entered into an agreement with all 50 state Attorneys General and the District of Columbia to resolve an investigation into the Company's retail sales practices, CPI and GAP, and mortgage interest rate lock matters, pursuant to which the Company paid \$575 million. The Company has also engaged in preliminary and/or exploratory resolution discussions with the Department of Justice and the SEC, although there can be no assurance as to the outcome of these discussions.

In addition, a number of lawsuits have also been filed by non-governmental parties seeking damages or other remedies related to these retail 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, the Company 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. In addition, in the unlikely event that the number of unauthorized accounts identified by settlement class members in the claims process and not disputed by the claims administrator exceeds plaintiffs' 3.5 million account estimate, the Company will proportionately increase the \$25 million reserve so that the ratio of reserve to unauthorized accounts is no less than what was implied by plaintiffs' estimate at the time of the district court's preliminary approval of the settlement in July 2017. The district court issued an order granting final approval of the settlement on June 14, 2018. Several appeals of the district court's order granting final approval of the settlement have been filed with the United States Court of Appeals for the Ninth Circuit. Second, Wells Fargo shareholders brought 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. The Company entered into a settlement agreement to resolve this matter pursuant to which the Company paid \$480 million. The district court issued an order granting final approval of the settlement on December 20, 2018. 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 involvement with and failure to detect and prevent sales practices issues. These actions are currently pending in the United States District Court for the Northern District of California and California state court for coordinated proceedings. An additional lawsuit asserting similar claims pending in Delaware state court has been stayed. Subject to court approval, the parties have entered into settlement agreements to resolve the shareholder derivative lawsuits pursuant to which insurance carriers will pay the Company approximately \$240 million for alleged damage to the Company, and the Company will pay plaintiffs' attorneys' fees. Fourth, multiple employment litigation matters have been brought against Wells Fargo, including an Employee Retirement Income Security Act (ERISA) class action in the United States District Court for the District of Minnesota on behalf of 401(k) plan participants that has been dismissed and is now on appeal; a class action in the United States District Court for the Northern District of California on behalf of team members who allege that they protested sales practice misconduct and/or were terminated for not meeting sales goals that has now been dismissed, and we have entered into a framework with plaintiffs' counsel to address individual claims that have been asserted; various wage and hour class actions brought in federal and state court in California (which have been settled), New Jersey, and Pennsylvania on behalf of non-exempt branch based team members alleging that sales pressure resulted in uncompensated overtime; and multiple single plaintiff Sarbanes-Oxley Act complaints and state law whistleblower actions filed with the United States Department of Labor or in various state courts alleging adverse employment actions for raising sales practice misconduct issues.

RMBS TRUSTEE LITIGATION In November 2014, a group of institutional investors (Institutional Investor Plaintiffs), including funds affiliated with BlackRock, Inc., 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 Company in its capacity as trustee for a number of residential mortgage-backed securities (RMBS) trusts (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 (Related Federal Cases), and the various cases pending against the Company are proceeding before the same judge. On January 19, 2016, the Southern District of New York entered an order in connection with the Federal Court Complaint dismissing claims related to certain of the trusts at issue (Dismissed Trusts). The Company's motion to dismiss the Federal Court Complaint and the complaints for the Related Federal Cases 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 (Third-Party Claims). The investment advisors have moved to dismiss those complaints. On April 17, 2018, the Southern District of New York denied class certification in the Related Federal Case brought by Royal Park Investments SA/NV (Royal Park Action).

A complaint raising similar allegations to those in the Federal Court Complaint was filed in May 2016 in New York state court by a different plaintiff investor. 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 (State Court Action).

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 (Declaratory Judgment Action). The complaint seeks, among other relief, declarations that the Company 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. In November 2017, the Company's motion to dismiss the complaint was granted. Plaintiffs filed a notice of appeal in January 2018.

In November 2018, the Institutional Investor Plaintiffs and the Company entered into a settlement agreement pursuant to which, among other terms, the Company will pay \$43 million to resolve the Federal Court Complaint and the State Court Action. The settlement will also resolve the Third Party Claims and the Declaratory Judgment Action. The New York state court has scheduled a fairness hearing on the settlement for May 6, 2019. In addition, Royal Park Investments SA/NV and the Company have reached an agreement resolving the Royal Park Action. Other than the Royal Park Action, the Related Federal Cases are not covered by these settlement agreements.

Note 14: Legal Actions (continued)

SEMINOLE TRIBE TRUSTEE LITIGATION The Seminole Tribe of Florida filed a complaint in Florida state court alleging that Wells Fargo, as trustee, charged excess fees in connection with the administration of a minor's trust and failed to invest the assets of the trust prudently. The complaint was later amended to include three individual current and former beneficiaries as plaintiffs and to remove the Tribe as a party to the case. In December 2016, the Company filed a motion to dismiss the amended complaint on the grounds that the Tribe is a necessary party and that the individual beneficiaries lack standing to bring claims. The motion was denied in June 2018. Trial is scheduled for October 2019.

WHOLESALE BANKING CONSENT ORDER INVESTIGATION On November 19, 2015, the Company entered into a consent order with the OCC, pursuant to which the Wholesale Banking group was required to implement customer due diligence standards that include collection of current beneficial ownership information for certain business customers. The Company is responding to inquiries from various federal government agencies regarding potentially inappropriate conduct in connection with the collection of beneficial ownership information.

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 \$3.1 billion as of March 31, 2019. The increase in the high end of the range from December 31, 2018, was due to a variety of matters. 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 the retail 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 15: 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 17 (Derivatives) to Financial Statements in our 2018 Form 10-K.

Table 15.1 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 15.1: Notional or Contractual Amounts and Fair Values of Derivatives

(in millions)	March 31, 2019			December 31, 2018		
	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	\$ 187,889	2,195	810	177,511	2,237	636
Foreign exchange contracts (1)	33,647	474	1,575	34,176	573	1,376
Total derivatives designated as qualifying hedging instruments		2,669	2,385		2,810	2,012
Derivatives not designated as hedging instruments						
Economic hedges:						
Interest rate contracts (2)	216,847	905	495	173,215	849	369
Equity contracts	16,267	1,106	450	13,920	1,362	79
Foreign exchange contracts	16,590	154	92	19,521	225	80
Credit contracts – protection purchased	200	42	—	100	27	—
Subtotal		2,207	1,037		2,463	528
Customer accommodation trading and other derivatives:						
Interest rate contracts	10,242,378	17,349	15,957	9,162,821	15,349	15,303
Commodity contracts	62,763	1,528	1,160	66,173	1,588	2,336
Equity contracts	227,993	5,662	7,510	217,890	6,183	5,931
Foreign exchange contracts	331,020	5,272	5,045	364,982	5,916	5,657
Credit contracts – protection sold	13,426	135	125	11,741	76	182
Credit contracts – protection purchased	22,440	127	198	20,880	175	98
Subtotal		30,073	29,995		29,287	29,507
Total derivatives not designated as hedging instruments		32,280	31,032		31,750	30,035
Total derivatives before netting		34,949	33,417		34,560	32,047
Netting (3)		(23,711)	(26,024)		(23,790)	(23,548)
Total		\$ 11,238	7,393		10,770	8,499

(1) The notional amount for foreign exchange contracts at March 31, 2019, and December 31, 2018, excludes \$11.0 billion and \$11.2 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, MLHFS, 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 15.2 for further information.

Note 15: Derivatives (continued)

Table 15.2 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 \$31.6 billion and \$30.5 billion of gross derivative assets and liabilities, respectively, at March 31, 2019, and \$30.9 billion and \$28.4 billion, respectively, at December 31, 2018, 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 \$3.3 billion and \$2.9 billion, respectively, at March 31, 2019, and \$3.7 billion and \$3.6 billion, respectively, at December 31, 2018, 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 15.2 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 13 (Guarantees, Pledged Assets and Collateral, and Other Commitments).

Table 15.2: Gross Fair Values of Derivative Assets and Liabilities

(in millions)	Gross amounts recognized	Gross amounts offset in consolidated balance sheet (1)	Net amounts in consolidated balance sheet	Gross amounts not offset in consolidated balance sheet (Disclosure-only netting) (2)	Net amounts	Percent exchanged in over-the-counter market (3)
March 31, 2019						
Derivative assets						
Interest rate contracts	\$ 20,449	(13,354)	7,095	(123)	6,972	90%
Commodity contracts	1,528	(846)	682	—	682	80
Equity contracts	6,768	(4,617)	2,151	(65)	2,086	71
Foreign exchange contracts	5,900	(4,642)	1,258	(17)	1,241	100
Credit contracts – protection sold	135	(133)	2	—	2	8
Credit contracts – protection purchased	169	(119)	50	(1)	49	82
Total derivative assets	\$ 34,949	(23,711)	11,238	(206)	11,032	
Derivative liabilities						
Interest rate contracts	\$ 17,262	(14,761)	2,501	(576)	1,925	92%
Commodity contracts	1,160	(663)	497	(2)	495	72
Equity contracts	7,960	(5,154)	2,806	(120)	2,686	83
Foreign exchange contracts	6,712	(5,135)	1,577	(174)	1,403	100
Credit contracts – protection sold	125	(123)	2	(2)	—	71
Credit contracts – protection purchased	198	(188)	10	—	10	8
Total derivative liabilities	\$ 33,417	(26,024)	7,393	(874)	6,519	
December 31, 2018						
Derivative assets						
Interest rate contracts	\$ 18,435	(12,029)	6,406	(80)	6,326	90%
Commodity contracts	1,588	(849)	739	(4)	735	57
Equity contracts	7,545	(5,318)	2,227	(755)	1,472	78
Foreign exchange contracts	6,714	(5,355)	1,359	(35)	1,324	100
Credit contracts – protection sold	76	(73)	3	—	3	12
Credit contracts – protection purchased	202	(166)	36	(1)	35	78
Total derivative assets	\$ 34,560	(23,790)	10,770	(875)	9,895	
Derivative liabilities						
Interest rate contracts	\$ 16,308	(13,152)	3,156	(567)	2,589	92%
Commodity contracts	2,336	(727)	1,609	(8)	1,601	85
Equity contracts	6,010	(3,877)	2,133	(110)	2,023	75
Foreign exchange contracts	7,113	(5,522)	1,591	(188)	1,403	100
Credit contracts – protection sold	182	(180)	2	(2)	—	67
Credit contracts – protection purchased	98	(90)	8	—	8	11
Total derivative liabilities	\$ 32,047	(23,548)	8,499	(875)	7,624	

(1) 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 \$290 million and \$353 million related to derivative assets and \$104 million and \$152 million related to derivative liabilities at March 31, 2019, and December 31, 2018, respectively. Cash collateral totaled \$2.7 billion and \$5.2 billion, netted against derivative assets and liabilities, respectively, at March 31, 2019, and \$3.7 billion and \$3.6 billion, respectively, at December 31, 2018.

(2) Represents the fair value of 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.

(3) Over-the-counter percentages are calculated based on gross amounts recognized as of the respective balance sheet date.

Fair Value and Cash Flow Hedges

For fair value hedges, we use interest rate swaps to convert certain of our fixed-rate long-term debt and time certificates of deposit to floating rates to hedge our exposure to interest rate risk. We also enter into cross-currency swaps, cross-currency interest rate swaps and forward contracts to hedge our exposure to foreign currency risk and interest rate risk associated with the issuance of non-U.S. dollar denominated long-term debt. In addition, we use interest rate swaps, cross-currency swaps, cross-currency interest rate swaps and forward contracts to hedge against changes in fair value of certain investments in available-for-sale debt securities due to changes in interest rates, foreign currency rates, or both. We also use interest rate swaps to hedge

against changes in fair value for certain mortgage loans held for sale.

For cash flow hedges, we use interest rate swaps to hedge the variability in interest payments received on certain floating-rate commercial loans and paid on certain floating-rate debt due to changes in the contractually specified interest rate.

We estimate \$276 million pre-tax of deferred net losses related to cash flow hedges in OCI at March 31, 2019, will be reclassified into net interest income during the next twelve months. The deferred losses expected to be reclassified into net interest income are predominantly related to discontinued hedges of floating rate loans. For cash flow hedges as of March 31, 2019, we are hedging the variability of future cash flows for a

Note 15: Derivatives (continued)

maximum of 8 years. For more information on our accounting hedges, see Note 1 (Summary of Significant Accounting Policies) and Note 16 (Derivatives) to Financial Statements in our 2018 Form 10-K.

Table 15.3 shows the net gains (losses) related to derivatives in fair value and cash flow hedging relationships.

Table 15.3: Gains (Losses) Recognized in Consolidated Statement of Income on Fair Value and Cash Flow Hedging Relationships

(in millions)	Net interest income					Noninterest income	Total
	Debt securities	Loans	Mortgage loans held for sale	Deposits	Long-term debt	Other	
Quarter ended March 31, 2019							
Total amounts presented in the consolidated statement of income	\$ 3,941	11,354	152	(2,026)	(1,927)	574	12,068
Gains (losses) on fair value hedging relationships							
Interest contracts							
Amounts related to interest settlements on derivatives (1)	16	—	—	(23)	(7)	—	(14)
Recognized on derivatives	(814)	—	(8)	207	1,986	—	1,371
Recognized on hedged items	817	—	7	(190)	(1,947)	—	(1,313)
Foreign exchange contracts							
Amounts related to interest settlements on derivatives (1)(2)	10	—	—	—	(142)	—	(132)
Recognized on derivatives (3)	(4)	—	—	—	292	(402)	(114)
Recognized on hedged items	5	—	—	—	(266)	391	130
Net income (expense) recognized on fair value hedges	30	—	(1)	(6)	(84)	(11)	(72)
Gains (losses) on cash flow hedging relationships							
Interest contracts							
Realized gains (losses) (pre-tax) reclassified from cumulative OCI into net income (4)	—	(78)	—	—	—	—	(78)
Foreign exchange contracts							
Realized gains (losses) (pre-tax) reclassified from cumulative OCI into net income (4)	—	—	—	—	(1)	—	(1)
Net income (expense) recognized on cash flow hedges	\$ —	(78)	—	—	(1)	—	(79)

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(in millions)	Net interest income					Noninterest income		Total
	Debt securities	Loans	Mortgage loans held for sale	Deposits	Long-term debt	Other		
Quarter ended March 31, 2018								
Total amounts presented in the consolidated statement of income	\$ 3,414	10,579	179	(1,090)	(1,576)	602	12,108	
Gains (losses) on fair value hedging relationships								
Interest contracts								
Amounts related to interest settlements on derivatives (1)	(82)	—	(1)	(5)	171	—	83	
Recognized on derivatives	950	1	6	(149)	(2,393)	—	(1,585)	
Recognized on hedged items	(968)	(1)	(8)	141	2,334	—	1,498	
Foreign exchange contracts								
Amounts related to interest settlements on derivatives (1)(2)	5	—	—	—	(80)	—	(75)	
Recognized on derivatives (3)	4	—	—	—	(171)	660	493	
Recognized on hedged items	(3)	—	—	—	109	(627)	(521)	
Net income (expense) recognized on fair value hedges	(94)	—	(3)	(13)	(30)	33	(107)	
Gains (losses) on cash flow hedging relationships								
Interest contracts								
Realized gains (losses) (pre-tax) reclassified from cumulative OCI into net income (4)	—	(60)	—	—	—	—	(60)	
Foreign exchange contracts								
Realized gains (losses) (pre-tax) reclassified from cumulative OCI into net income (4)	—	—	—	—	—	—	—	
Net income (expense) recognized on cash flow hedges	\$ —	(60)	—	—	—	—	(60)	

(1) Includes changes in fair value due to the passage of time associated with the non-zero fair value amount at hedge inception.

(2) Includes \$7 million and \$0 million for first quarter 2019 and 2018, respectively, of the time value component recognized as net interest income (expense) on forward derivatives hedging foreign currency debt securities and long-term debt that were excluded from the assessment of hedge effectiveness.

(3) For certain fair value hedges of foreign currency risk, changes in fair value of cross-currency swaps attributable to changes in cross-currency basis spreads are excluded from the assessment of hedge effectiveness and recorded in other comprehensive income. See Note 21 (Other Comprehensive Income) for the amounts recognized in other comprehensive income.

(4) See Note 21 (Other Comprehensive Income) for details of amounts reclassified to net income.

Table 15.4 shows the carrying amount and associated cumulative basis adjustment related to the application of hedge accounting that is included in the carrying amount of hedged assets and liabilities in fair value hedging relationships.

Table 15.4: Hedged Items in Fair Value Hedging Relationship

(in millions)	Hedged Items Currently Designated		Hedged Items No Longer Designated (1)	
	Carrying Amount of Assets/(Liabilities) (2)(4)	Hedge Accounting Basis Adjustment Assets/(Liabilities) (3)	Carrying Amount of Assets/(Liabilities) (4)	Hedge Accounting Basis Adjustment Assets/(Liabilities)
March 31, 2019				
Available-for-sale debt securities (5)	\$ 40,081	256	4,596	110
Loans	—	—	—	—
Mortgage loans held for sale	316	4	228	2
Deposits	(59,921)	(82)	—	—
Long-term debt	(111,404)	(2,935)	(25,588)	319
December 31, 2018				
Available-for-sale debt securities (5)	37,857	(157)	4,938	238
Loans	—	—	—	—
Mortgage loans held for sale	448	7	—	—
Deposits	(56,535)	115	—	—
Long-term debt	(104,341)	(742)	(25,539)	366

(1) Represents hedged items no longer designated in qualifying fair value hedging relationships for which an associated basis adjustment exists at the balance sheet date.

(2) Does not include the carrying amount of hedged items where only foreign currency risk is the designated hedged risk. The carrying amount excluded \$1.6 billion for debt securities and \$(6.2) billion for long-term debt as of March 31, 2019, and \$1.6 billion for debt securities and \$(6.3) billion for long-term debt as of December 31, 2018.

(3) The balance includes \$1.0 billion and \$77 million of debt securities and long-term debt cumulative basis adjustments, respectively, as of March 31, 2019, and \$1.4 billion and \$66 million of debt securities and long-term debt cumulative basis adjustments, respectively, as of December 31, 2018, on terminated hedges whereby the hedged items have subsequently been re-designated into existing hedges.

(4) Represents the full carrying amount of the hedged asset or liability item as of the balance sheet date, except for circumstances in which only a portion of the asset or liability was designated as the hedged item in which case only the portion designated is presented.

(5) Carrying amount represents the amortized cost.

Note 15: Derivatives (continued)

Derivatives Not Designated as Hedging Instruments

We use economic hedge derivatives to hedge the risk of changes in the fair value of certain residential MLHFS, 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 mismatches between the changes in fair value of the hedged item and hedging instrument 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 \$962 million in first quarter 2019, and \$(1.2) billion in first quarter 2018, which are included in mortgage banking noninterest income. The aggregate fair value of these derivatives was a net asset of \$663 million at March 31, 2019, and net asset of \$757 million at December 31,

2018. 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.

Loan 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 positive fair value of \$58 million and a net positive fair value of \$60 million at March 31, 2019, and December 31, 2018, respectively, and is included in the caption "Interest rate contracts" under "Customer accommodation trading and other derivatives" in Table 15.1 in this Note.

For more information on economic hedges and other derivatives, see Note 16 (Derivatives) to Financial Statements in our 2018 Form 10-K. Table 15.5 shows the net gains (losses) recognized by income statement lines, related to derivatives not designated as hedging instruments.

Table 15.5: Gains (Losses) on Derivatives Not Designated as Hedging Instruments

(in millions)					Noninterest income	
	Mortgage banking	Net gains (losses) from equity securities	Net gains (losses) from trading activities	Other	Total	
Quarter ended March 31, 2019						
Net gains (losses) recognized on economic hedges derivatives:						
Interest contracts (1)	\$ 811	—	—	5	816	
Equity contracts	—	(885)	—	7	(878)	
Foreign exchange contracts	—	—	—	(24)	(24)	
Credit contracts	—	—	—	15	15	
Subtotal (2)	811	(885)	—	3	(71)	
Net gains (losses) recognized on customer accommodation trading and other derivatives:						
Interest contracts (3)	118	—	(284)	—	(166)	
Commodity contracts	—	—	51	—	51	
Equity contracts	—	—	(2,149)	(273)	(2,422)	
Foreign exchange contracts	—	—	14	—	14	
Credit contracts	—	—	(44)	—	(44)	
Subtotal	118	—	(2,412)	(273)	(2,567)	
Net gains (losses) recognized related to derivatives not designated as hedging instruments	\$ 929	(885)	(2,412)	(270)	(2,638)	

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(in millions)	Noninterest income				Total
	Mortgage banking	Net gains (losses) from equity securities	Net gains (losses) from trading activities	Other	
Quarter ended March 31, 2018					
Net gains (losses) recognized on economic hedges derivatives:					
Interest contracts (1)	\$ (595)	—	—	9	(586)
Equity contracts	—	(58)	—	—	(58)
Foreign exchange contracts	—	—	—	(159)	(159)
Credit contracts	—	—	—	4	4
Subtotal (2)	(595)	(58)	—	(146)	(799)
Net gains (losses) recognized on customer accommodation trading and other derivatives:					
Interest contracts (3)	(259)	—	385	—	126
Commodity contracts	—	—	39	—	39
Equity contracts	—	—	459	(195)	264
Foreign exchange contracts	—	—	310	—	310
Credit contracts	—	—	10	—	10
Subtotal	(259)	—	1,203	(195)	749
Net gains (losses) recognized related to derivatives not designated as hedging instruments	\$ (854)	(58)	1,203	(341)	(50)

- (1) Mortgage banking amounts for first quarter 2019 are comprised of gains of \$962 million related to derivatives used as economic hedges of MSR's measured at fair value offset by losses of \$(151) million related to derivatives used as economic hedges of mortgage loans held for sale and derivative loan commitments. The corresponding amounts for first quarter 2018 are comprised of losses of \$(1.2) billion offset by gains of \$625 million, respectively.
- (2) Includes hedging gains (losses) of \$(18) million and \$28 million for first quarter 2019 and 2018, respectively, which partially offset hedge accounting ineffectiveness.
- (3) Amounts presented in mortgage banking noninterest income are gains on derivative loan commitments.

Note 15: Derivatives (continued)

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 15.6 provides details of sold and purchased credit derivatives.

Table 15.6: Sold and Purchased Credit Derivatives

(in millions)	Fair value liability	Notional amount					Range of maturities
		Protection sold (A)	Protection sold – non-investment grade	Protection purchased with identical underlyings (B)	Net protection sold (A) - (B)	Other protection purchased	
March 31, 2019							
Credit default swaps on:							
Corporate bonds	\$ 36	2,010	483	1,332	678	1,843	2019 - 2027
Structured products	37	102	97	90	12	113	2022 - 2047
Credit protection on:							
Default swap index	—	4,916	585	2,773	2,143	3,690	2019 - 2028
Commercial mortgage-backed securities index	42	352	97	326	26	50	2047 - 2058
Asset-backed securities index	8	42	42	42	—	1	2045 - 2046
Other	2	6,004	5,809	—	6,004	12,380	2019 - 2048
Total credit derivatives	\$ 125	13,426	7,113	4,563	8,863	18,077	
December 31, 2018							
Credit default swaps on:							
Corporate bonds	\$ 59	2,037	441	1,374	663	1,460	2019 - 2027
Structured products	62	133	128	121	12	113	2022 - 2047
Credit protection on:							
Default swap index	1	3,618	582	1,998	1,620	2,896	2019 - 2028
Commercial mortgage-backed securities index	49	389	109	363	26	51	2047 - 2058
Asset-backed securities index	9	42	42	42	—	1	2045 - 2046
Other	2	5,522	5,327	—	5,522	12,561	2018 - 2048
Total credit derivatives	\$ 182	11,741	6,629	3,898	7,843	17,082	

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 \$8.7 billion at March 31, 2019, and \$7.4 billion at December 31, 2018, for which we posted \$7.2 billion and \$5.6 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 March 31, 2019, or December 31, 2018, we would have been required to post additional collateral of \$1.5 billion or \$1.8 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 16: 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 16.2 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, measurement alternative accounting for nonmarketable equity securities or write-downs of individual assets. Assets recorded on a nonrecurring basis are presented in Table 16.9 in this Note.

See Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 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 18 (Fair Values of Assets and Liabilities) to Financial Statements in our 2018 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.

We do not classify an equity security 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 use NAV per share as the fair value measurement for certain nonmarketable equity fund investments. Marketable equity securities 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 18 (Fair Values of Assets and Liabilities) to Financial Statements in our 2018 Form 10-K. Table 16.1 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 16.1.

Table 16.1: 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
March 31, 2019						
Trading debt securities	\$ —	—	—	485	310	—
Available-for-sale debt securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	12,144	2,962	—
Securities of U.S. states and political subdivisions	—	—	—	—	49,230	43
Mortgage-backed securities	—	—	—	—	156,450	41
Other debt securities (1)	—	45	130	—	44,292	771
Total available-for-sale debt securities	—	45	130	12,144	252,934	855
Equity securities:						
Marketable	—	—	—	—	161	—
Nonmarketable	—	—	—	—	—	—
Total equity securities	—	—	—	—	161	—
Derivative assets	—	—	—	17	—	—
Derivative liabilities	—	—	—	(21)	(1)	—
Other liabilities (2)	—	—	—	—	—	—
December 31, 2018						
Trading debt securities	\$ —	—	—	899	256	—
Available-for-sale debt securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	10,399	2,949	—
Securities of U.S. states and political subdivisions	—	—	—	—	48,377	43
Mortgage-backed securities	—	—	—	—	160,162	41
Other debt securities (1)	—	45	129	—	44,292	758
Total available-for-sale debt securities	—	45	129	10,399	255,780	842
Equity securities:						
Marketable	—	—	—	—	158	—
Nonmarketable	—	—	—	—	1	—
Total equity securities	—	—	—	—	159	—
Derivative assets	—	—	—	17	—	—
Derivative liabilities	—	—	—	(12)	—	—
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.

Note 16: Fair Values of Assets and Liabilities (continued)

Assets and Liabilities Recorded at Fair Value on a Recurring Basis

Table 16.2 presents the balances of assets and liabilities recorded at fair value on a recurring basis.

Table 16.2: Fair Value on a Recurring Basis

(In millions)	Level 1	Level 2	Level 3	Netting (1)	Total
March 31, 2019					
Trading debt securities:					
Securities of U.S. Treasury and federal agencies	\$ 17,584	4,971	—	—	22,555
Securities of U.S. states and political subdivisions	—	3,385	—	—	3,385
Collateralized loan obligations	—	674	275	—	949
Corporate debt securities	—	11,073	41	—	11,114
Mortgage-backed securities	—	31,162	—	—	31,162
Asset-backed securities	—	1,187	—	—	1,187
Other trading debt securities	—	11	15	—	26
Total trading debt securities	17,584	52,463	331	—	70,378
Available-for-sale debt securities:					
Securities of U.S. Treasury and federal agencies	12,144	2,962	—	—	15,106
Securities of U.S. states and political subdivisions	—	49,230	470	—	49,700
Mortgage-backed securities:					
Federal agencies	—	150,663	—	—	150,663
Residential	—	1,456	—	—	1,456
Commercial	—	4,331	41	—	4,372
Total mortgage-backed securities	—	156,450	41	—	156,491
Corporate debt securities	36	5,941	377	—	6,354
Collateralized loan and other debt obligations (2)	—	34,560	755	—	35,315
Asset-backed securities:					
Automobile loans and leases	—	945	—	—	945
Home equity loans	—	14	—	—	14
Other asset-backed securities	—	3,811	362	—	4,173
Total asset-backed securities	—	4,770	362	—	5,132
Other debt securities	—	1	—	—	1
Total available-for-sale debt securities	12,180	253,914	2,005 (3)	—	268,099
Mortgage loans held for sale	—	10,093	998	—	11,091
Loans held for sale	—	927	71	—	998
Loans	—	—	225	—	225
Mortgage servicing rights (residential)	—	—	13,336	—	13,336
Derivative assets:					
Interest rate contracts	67	20,254	128	—	20,449
Commodity contracts	—	1,503	25	—	1,528
Equity contracts	1,936	3,275	1,557	—	6,768
Foreign exchange contracts	17	5,872	11	—	5,900
Credit contracts	—	216	88	—	304
Netting	—	—	—	(23,711)	(23,711)
Total derivative assets	2,020	31,120	1,809	(23,711)	11,238
Equity securities - excluding securities at NAV:					
Marketable	25,168	900	—	—	26,068
Nonmarketable	—	20	6,381	—	6,401
Total equity securities	25,168	920	6,381	—	32,469
Total assets included in the fair value hierarchy	\$ 56,952	349,437	25,156	(23,711)	407,834
Equity securities at NAV (4)					
Total assets recorded at fair value					117
Derivative liabilities:					
Interest rate contracts	\$ (18)	(17,217)	(27)	—	(17,262)
Commodity contracts	—	(1,117)	(43)	—	(1,160)
Equity contracts	(1,382)	(4,859)	(1,719)	—	(7,960)
Foreign exchange contracts	(21)	(6,664)	(27)	—	(6,712)
Credit contracts	—	(284)	(39)	—	(323)
Netting	—	—	—	26,024	26,024
Total derivative liabilities	(1,421)	(30,141)	(1,855)	26,024	(7,393)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(12,562)	(219)	—	—	(12,781)
Mortgage-backed securities	—	(404)	—	—	(404)
Corporate debt securities	—	(5,075)	—	—	(5,075)
Equity securities	(3,325)	(1)	—	—	(3,326)
Other securities	—	—	—	—	—
Total short sale liabilities	(15,887)	(5,699)	—	—	(21,586)
Other liabilities	—	—	(2)	—	(2)
Total liabilities recorded at fair value	\$ (17,308)	(35,840)	(1,857)	26,024	(28,981)

(1) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 15 (Derivatives) for additional information.

(2) Includes collateralized debt obligations of \$755 million.

(3) A significant portion of the balance consists of securities that are 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.

(4) Consists of certain nonmarketable equity securities 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)

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(in millions)	Level 1	Level 2	Level 3	Netting (1)	Total
December 31, 2018					
Trading debt securities:					
Securities of U.S. Treasury and federal agencies	\$ 20,525	2,892	—	—	23,417
Securities of U.S. states and political subdivisions	—	3,272	3	—	3,275
Collateralized loan obligations	—	673	237	—	910
Corporate debt securities	—	10,723	34	—	10,757
Mortgage-backed securities	—	30,715	—	—	30,715
Asset-backed securities	—	893	—	—	893
Other trading debt securities	—	6	16	—	22
Total trading debt securities	20,525	49,174	290	—	69,989
Available-for-sale debt securities:					
Securities of U.S. Treasury and federal agencies	10,399	2,949	—	—	13,348
Securities of U.S. states and political subdivisions	—	48,820	444	—	49,264
Mortgage-backed securities:					
Federal agencies	—	153,203	—	—	153,203
Residential	—	2,775	—	—	2,775
Commercial	—	4,184	41	—	4,225
Total mortgage-backed securities	—	160,162	41	—	160,203
Corporate debt securities	34	5,867	370	—	6,271
Collateralized loan and other debt obligations (2)	—	34,543	800	—	35,343
Asset-backed securities:					
Automobile loans and leases	—	925	—	—	925
Home equity loans	—	112	—	—	112
Other asset-backed securities	—	4,056	389	—	4,445
Total asset-backed securities	—	5,093	389	—	5,482
Other debt securities	—	1	—	—	1
Total available-for-sale debt securities	10,433	257,435	2,044 (3)	—	269,912
Mortgage loans held for sale	—	10,774	997	—	11,771
Loans held for sale	—	1,409	60	—	1,469
Loans	—	—	244	—	244
Mortgage servicing rights (residential)	—	—	14,649	—	14,649
Derivative assets:					
Interest rate contracts	46	18,294	95	—	18,435
Commodity contracts	—	1,535	53	—	1,588
Equity contracts	1,648	4,582	1,315	—	7,545
Foreign exchange contracts	17	6,689	8	—	6,714
Credit contracts	—	179	99	—	278
Netting	—	—	—	(23,790)	(23,790)
Total derivative assets	1,711	31,279	1,570	(23,790)	10,770
Equity securities - excluding securities at NAV:					
Marketable	23,205	757	—	—	23,962
Nonmarketable	—	24	5,468	—	5,492
Total equity securities	23,205	781	5,468	—	29,454
Total assets included in the fair value hierarchy	\$ 55,874	350,852	25,322	(23,790)	408,258
Equity securities at NAV (4)					
Total assets recorded at fair value					102
					408,360
Derivative liabilities:					
Interest rate contracts	\$ (21)	(16,217)	(70)	—	(16,308)
Commodity contracts	—	(2,287)	(49)	—	(2,336)
Equity contracts	(1,492)	(3,186)	(1,332)	—	(6,010)
Foreign exchange contracts	(12)	(7,067)	(34)	—	(7,113)
Credit contracts	—	(216)	(64)	—	(280)
Netting	—	—	—	23,548	23,548
Total derivative liabilities	(1,525)	(28,973)	(1,549)	23,548	(8,499)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(11,850)	(411)	—	—	(12,261)
Mortgage-backed securities	—	(47)	—	—	(47)
Corporate debt securities	—	(4,505)	—	—	(4,505)
Equity securities	(2,902)	(2)	—	—	(2,904)
Other securities	—	(3)	—	—	(3)
Total short sale liabilities	(14,752)	(4,968)	—	—	(19,720)
Other liabilities	—	—	(2)	—	(2)
Total liabilities recorded at fair value	\$ (16,277)	(33,941)	(1,551)	23,548	(28,221)

(1) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 15 (Derivatives) for additional information.

(2) Includes collateralized debt obligations of \$800 million.

(3) A significant portion of the balance consists of securities that are 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.

(4) Consists of certain nonmarketable equity securities 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.

Note 16: Fair Values of Assets and Liabilities (continued)

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. The amounts reported as transfers represent the fair value as of the beginning of the quarter in which the transfer occurred.

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for first quarter 2019, are presented in Table 16.3.

Table 16.3: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – Quarter ended March 31, 2019

(in millions)	Balance, beginning of period	Total net gains (losses) included in		Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3 (2)	Transfers out of Level 3 (3)	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (4)
		Net income	Other comprehensive income					
Quarter ended March 31, 2019								
Trading debt securities:								
Securities of U.S. states and political subdivisions	\$ 3	—	—	(2)	—	(1)	—	—
Collateralized loan obligations	237	(3)	—	41	—	—	275	1
Corporate debt securities	34	2	—	4	1	—	41	2
Other trading debt securities	16	(1)	—	—	—	—	15	—
Total trading debt securities	290	(2)	—	43	1	(1)	331	3 (5)
Available-for-sale debt securities:								
Securities of U.S. states and political subdivisions	444	—	3	23	—	—	470	—
Mortgage-backed securities:								
Residential	—	—	—	—	—	—	—	—
Commercial	41	—	—	—	—	—	41	—
Total mortgage-backed securities	41	—	—	—	—	—	41	—
Corporate debt securities	370	1	4	2	—	—	377	—
Collateralized loan and other debt obligations	800	6	(4)	(47)	—	—	755	—
Asset-backed securities:								
Other asset-backed securities	389	—	(1)	(26)	—	—	362	—
Total asset-backed securities	389	—	(1)	(26)	—	—	362	—
Total available-for-sale debt securities	2,044	7	2	(48)	—	—	2,005	— (6)
Mortgage loans held for sale	997	15	—	(66)	56	(4)	998	15 (7)
Loans held for sale	60	—	—	11	37	(37)	71	—
Loans	244	—	—	(19)	—	—	225	(2) (7)
Mortgage servicing rights (residential) (8)	14,649	(1,373)	—	60	—	—	13,336	(891) (7)
Net derivative assets and liabilities:								
Interest rate contracts	25	187	—	(111)	—	—	101	132
Commodity contracts	4	(51)	—	27	2	—	(18)	(15)
Equity contracts	(17)	(119)	—	(3)	9	(32)	(162)	(114)
Foreign exchange contracts	(26)	7	—	3	—	—	(16)	11
Credit contracts	35	8	—	6	—	—	49	13
Total derivative contracts	21	32	—	(78)	11	(32)	(46)	27 (9)
Equity securities:								
Nonmarketable	5,468	926	—	(1)	—	(12)	6,381	926
Total equity securities	5,468	926	—	(1)	—	(12)	6,381	926 (10)
Other liabilities	(2)	—	—	—	—	—	(2)	— (7)

(1) See Table 16.4 for detail.

(2) All assets and liabilities transferred into level 3 were previously classified within level 2.

(3) All assets and liabilities transferred out of level 3 are classified as level 2.

(4) 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.

(5) Included in net gains (losses) from trading activities in the income statement.

(6) Included in net gains (losses) on debt securities in the income statement.

(7) Included in mortgage banking and other noninterest income in the income statement.

(8) For more information on the changes in mortgage servicing rights, see Note 11 (Mortgage Banking Activities).

(9) Included in mortgage banking, trading activities, equity securities and other noninterest income in the income statement.

(10) Included in net gains (losses) from equity securities in the income statement.

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Table 16.4 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 first quarter 2019.

Table 16.4: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Quarter ended March 31, 2019

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Quarter ended March 31, 2019					
Trading debt securities:					
Securities of U.S. states and political subdivisions	\$ —	—	—	(2)	(2)
Collateralized loan obligations	130	(87)	—	(2)	41
Corporate debt securities	5	(1)	—	—	4
Other trading debt securities	—	—	—	—	—
Total trading debt securities	135	(88)	—	(4)	43
Available-for-sale debt securities:					
Securities of U.S. states and political subdivisions	—	—	49	(26)	23
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	—	—	—	—	—
Total mortgage-backed securities	—	—	—	—	—
Corporate debt securities	3	—	—	(1)	2
Collateralized loan and other debt obligations	—	—	—	(47)	(47)
Asset-backed securities:					
Other asset-backed securities	—	(3)	66	(89)	(26)
Total asset-backed securities	—	(3)	66	(89)	(26)
Total available-for-sale debt securities	3	(3)	115	(163)	(48)
Mortgage loans held for sale	16	(93)	46	(35)	(66)
Loans held for sale	12	(1)	—	—	11
Loans	2	—	3	(24)	(19)
Mortgage servicing rights (residential) (1)	—	(281)	341	—	60
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(111)	(111)
Commodity contracts	—	—	—	27	27
Equity contracts	—	—	—	(3)	(3)
Foreign exchange contracts	—	—	—	3	3
Credit contracts	6	—	—	—	6
Total derivative contracts	6	—	—	(84)	(78)
Equity securities:					
Nonmarketable	—	(1)	—	—	(1)
Total equity securities	—	(1)	—	—	(1)
Other liabilities	—	—	—	—	—

(1) For more information on the changes in mortgage servicing rights, see Note 11 (Mortgage Banking Activities).

Note 16: Fair Values of Assets and Liabilities (continued)

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for first quarter 2018, are presented in Table 16.5.

Table 16.5: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – March 31, 2018

(in millions)	Balance, beginning of period	Total net gains (losses) included in		Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3 (2)	Transfers out of Level 3 (3)	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end (4)
		Net income	Other comprehensive income					
Quarter ended March 31, 2018								
Trading debt securities:								
Securities of U.S. states and political subdivisions	\$ 3	—	—	—	—	—	3	—
Collateralized loan obligations	354	2	—	(40)	—	—	316	16
Corporate debt securities	31	—	—	3	—	—	34	—
Other trading debt securities	19	(1)	—	—	—	—	18	—
Total trading debt securities	407	1	—	(37)	—	—	371	16 (5)
Available-for-sale debt securities:								
Securities of U.S. states and political subdivisions	925	4	(2)	(41)	—	(269)	617	—
Mortgage-backed securities:								
Residential	1	—	—	—	—	—	1	—
Commercial	75	1	(1)	(8)	—	—	67	—
Total mortgage-backed securities	76	1	(1)	(8)	—	—	68	—
Corporate debt securities	407	1	3	(1)	—	—	410	—
Collateralized loan and other debt obligations	1,020	5	43	(23)	—	—	1,045	—
Asset-backed securities:								
Other asset-backed securities	566	8	(7)	(66)	—	—	501	—
Total asset-backed securities	566	8	(7)	(66)	—	—	501	—
Total available-for-sale debt securities	2,994	19	36	(139)	—	(269)	2,641	— (6)
Mortgage loans held for sale	998	(23)	—	(37)	15	(3)	950	(23) (7)
Loans held for sale	14	2	—	(16)	—	—	—	—
Loans	376	(1)	—	(23)	—	—	352	(4) (7)
Mortgage servicing rights (residential) (8)	13,625	847	—	569	—	—	15,041	1,330 (7)
Net derivative assets and liabilities:								
Interest rate contracts	71	(345)	—	266	—	—	(8)	(73)
Commodity contracts	19	15	—	(24)	—	—	10	—
Equity contracts	(511)	69	—	71	—	49	(322)	25
Foreign exchange contracts	7	(7)	—	1	—	—	1	(3)
Credit contracts	36	8	—	(3)	—	—	41	4
Total derivative contracts	(378)	(260)	—	311	—	49	(278)	(47) (9)
Equity securities:								
Nonmarketable	5,203	108	—	(96)	4	—	5,219	101
Total equity securities	5,203	108	—	(96)	4	—	5,219	101 (10)
Other liabilities	(3)	1	—	—	—	—	(2)	— (7)

(1) See Table 16.6 for detail.

(2) All assets and liabilities transferred into level 3 were previously classified within level 2.

(3) All assets and liabilities transferred out of level 3 are classified as level 2.

(4) 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.

(5) Included in net gains (losses) from trading activities in the income statement.

(6) Included in net gains (losses) on debt securities in the income statement.

(7) Included in mortgage banking and other noninterest income in the income statement.

(8) For more information on the changes in mortgage servicing rights, see Note 11 (Mortgage Banking Activities).

(9) Included in mortgage banking, trading activities, equity securities and other noninterest income in the income statement.

(10) Included in net gains (losses) from equity securities in the income statement.

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Table 16.6 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 first quarter 2018.

Table 16.6: Gross Purchases, Sales, Issuances and Settlements – Level 3 – Quarter ended March 31, 2018

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Quarter ended March 31, 2018					
Trading debt securities:					
Securities of U.S. states and political subdivisions	\$ —	—	—	—	—
Collateralized loan obligations	182	(191)	—	(31)	(40)
Corporate debt securities	4	(1)	—	—	3
Other trading debt securities	—	—	—	—	—
Total trading debt securities	186	(192)	—	(31)	(37)
Available-for-sale debt securities:					
Securities of U.S. states and political subdivisions	—	(4)	10	(47)	(41)
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	—	—	—	(8)	(8)
Total mortgage-backed securities	—	—	—	(8)	(8)
Corporate debt securities	—	—	—	(1)	(1)
Collateralized loan and other debt obligations	—	—	—	(23)	(23)
Asset-backed securities:					
Other asset-backed securities	—	(8)	49	(107)	(66)
Total asset-backed securities	—	(8)	49	(107)	(66)
Total available-for-sale debt securities	—	(12)	59	(186)	(139)
Mortgage loans held for sale	27	(83)	58	(39)	(37)
Loans held for sale	—	(16)	—	—	(16)
Loans	1	—	4	(28)	(23)
Mortgage servicing rights (residential) (1)	—	(4)	573	—	569
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	266	266
Commodity contracts	—	—	—	(24)	(24)
Equity contracts	—	—	—	71	71
Foreign exchange contracts	—	—	—	1	1
Credit contracts	3	(2)	—	(4)	(3)
Total derivative contracts	3	(2)	—	310	311
Equity securities:					
Nonmarketable	—	(17)	—	(79)	(96)
Total equity securities	—	(17)	—	(79)	(96)
Other liabilities	—	—	—	—	—

(1) For more information on the changes in mortgage servicing rights, see Note 11 (Mortgage Banking Activities).

Table 16.7 and Table 16.8 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 18 (Fair Values of Assets and Liabilities) to Financial Statements in our 2018 Form 10-K.

Note 16: Fair Values of Assets and Liabilities (continued)

Table 16.7: Valuation Techniques – Recurring Basis – March 31, 2019

(\$ in millions, except cost to service amounts)	Fair Value Level 3	Valuation Technique(s)	Significant Unobservable Input	Range of Inputs	Weighted Average (1)
March 31, 2019					
Trading and available-for-sale debt securities:					
Securities of U.S. states and political subdivisions:					
Government, healthcare and other revenue bonds	\$ 427	Discounted cash flow	Discount rate	1.8 - 6.4 %	3.0
	43	Vendor priced			
Collateralized loan and other debt obligations (2)	275	Market comparable pricing	Comparability adjustment	(12.0) - 16.1	2.1
	755	Vendor priced			
Corporate debt securities	225	Discounted cash flow	Discount rate	2.0 - 14.9	8.5
	64	Market comparable pricing	Comparability adjustment	(11.1) - 15.3	(2.1)
	129	Vendor priced			
Asset-backed securities:					
Diversified payment rights (3)	150	Discounted cash flow	Discount rate	3.1 - 6.8	4.0
Other commercial and consumer	195 (4)	Discounted cash flow	Discount rate	4.5 - 5.4	4.6
			Weighted average life	1.4 - 1.9 yrs	1.8
	17	Vendor priced			
Mortgage loans held for sale (residential)	982	Discounted cash flow	Default rate	0.0 - 16.6 %	0.8
			Discount rate	2.6 - 6.4	5.3
			Loss severity	0.0 - 48.7	27.9
			Prepayment rate	4.2 - 13.7	5.6
	16	Market comparable pricing	Comparability adjustment	(56.3) - (6.3)	(38.0)
Loans	225 (5)	Discounted cash flow	Discount rate	3.9 - 4.8	4.2
			Prepayment rate	4.0 - 100.0	86.6
			Loss severity	0.0 - 34.8	11.2
Mortgage servicing rights (residential)	13,336	Discounted cash flow	Cost to service per loan (6)	\$ 63 - 508	103
			Discount rate	6.9 - 13.8 %	7.6
			Prepayment rate (7)	10.5 - 25.2	11.3
Net derivative assets and (liabilities):					
Interest rate contracts					
	43	Discounted cash flow	Default rate	0.0 - 5.0	2.0
			Loss severity	50.0 - 50.0	50.0
			Prepayment rate	2.8 - 25.0	15.3
Interest rate contracts: derivative loan commitments					
	58	Discounted cash flow	Fall-out factor	1.0 - 99.0	20.5
			Initial-value servicing	(37.3) - 67.2 bps	20.1
Equity contracts					
	120	Discounted cash flow	Conversion factor	(9.0) - 0.0 %	(7.7)
			Weighted average life	1.3 - 3.8 yrs	2.2
	(282)	Option model	Correlation factor	(77.0) - 99.0 %	24.5
			Volatility factor	6.5 - 100.0	19.0
Credit contracts					
	2	Market comparable pricing	Comparability adjustment	(42.5) - 30.2	(5.4)
	47	Option model	Credit spread	0.1 - 18.4	1.0
			Loss severity	13.0 - 60.0	45.2
Nonmarketable equity securities	6,381	Market comparable pricing	Comparability adjustment	(22.5) - (6.5)	(16.7)
Insignificant Level 3 assets, net of liabilities	91 (8)				
Total level 3 assets, net of liabilities	\$ 23,299 (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 \$755 million of collateralized debt obligations.

(3) Securities backed by specified sources of current and future receivables generated from foreign originators.

(4) Predominantly 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 \$63 - \$199.

(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 mortgage-backed securities, other trading positions, other liabilities and certain net derivative assets and liabilities, such as commodity contracts and foreign exchange contracts.

(9) Consists of total Level 3 assets of \$25.2 billion and total Level 3 liabilities of \$1.9 billion, before netting of derivative balances.

Table 16.8: Valuation Techniques – Recurring Basis – December 31, 2018

(\$ 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, 2018					
Trading and available-for-sale debt securities:					
Securities of U.S. states and political subdivisions:					
Government, healthcare and other revenue bonds	\$ 404	Discounted cash flow	Discount rate	2.1 - 6.4 %	3.4
	43	Vendor priced			
Collateralized loan and other debt obligations (2)	298	Market comparable pricing	Comparability adjustment	(13.5) - 22.1	3.2
	739	Vendor priced			
Corporate debt securities	220	Discounted cash flow	Discount rate	4.0 - 11.7	8.5
	56	Market comparable pricing	Comparability adjustment	(11.3) - 16.6	(1.4)
	128	Vendor priced			
Asset-backed securities:					
Diversified payment rights (3)	171	Discounted cash flow	Discount rate	3.4 - 6.2	4.4
Other commercial and consumer	198 (4)	Discounted cash flow	Discount rate	4.6 - 5.2	4.7
			Weighted average life	1.1 - 1.5 yrs	1.1
	20	Vendor priced			
Mortgage loans held for sale (residential)	982	Discounted cash flow	Default rate	0.0 - 15.6 %	0.8
			Discount rate	1.1 - 6.6	5.5
			Loss severity	— - 43.3	23.4
			Prepayment rate	3.2 - 13.4	4.6
	15	Market comparable pricing	Comparability adjustment	(56.3) - (6.3)	(36.3)
Loans	244 (5)	Discounted cash flow	Discount rate	3.4 - 6.4	4.2
			Prepayment rate	2.9 - 100.0	87.2
			Loss severity	0.0 - 34.8	10.2
Mortgage servicing rights (residential)	14,649	Discounted cash flow	Cost to service per loan (6)	\$ 62 - 507	106
			Discount rate	7.1 - 15.3 %	8.1
			Prepayment rate (7)	9.0 - 23.5	9.9
Net derivative assets and (liabilities):					
Interest rate contracts	(35)	Discounted cash flow	Default rate	0.0 - 5.0	2.0
			Loss severity	50.0 - 50.0	50.0
			Prepayment rate	2.8 - 25.0	13.8
Interest rate contracts: derivative loan commitments	60	Discounted cash flow	Fall-out factor	1.0 - 99.0	19.4
			Initial-value servicing	(36.6) - 91.7 bps	18.5
Equity contracts	104	Discounted cash flow	Conversion factor	(9.3) - 0.0 %	(7.8)
			Weighted average life	1.0 - 3.0 yrs	1.8
	(121)	Option model	Correlation factor	(77.0) - 99.0 %	21.6
			Volatility factor	6.5 - 100.0	21.8
Credit contracts	3	Market comparable pricing	Comparability adjustment	(15.5) - 40.0	3.5
	32	Option model	Credit spread	0.9 - 21.5	1.3
			Loss severity	13.0 - 60.0	45.2
Nonmarketable equity securities	5,468	Market comparable pricing	Comparability adjustment	(20.6) - (4.3)	(15.8)
Insignificant Level 3 assets, net of liabilities	93 (8)				
Total level 3 assets, net of liabilities	\$ 23,771 (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 \$800 million of collateralized debt obligations.

(3) Securities backed by specified sources of current and future receivables generated from foreign originators.

(4) Predominantly 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 \$62 - \$204.

(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 mortgage-backed securities, other trading positions, other liabilities and certain net derivative assets and liabilities, such as commodity contracts and foreign exchange contracts.

(9) Consists of total Level 3 assets of \$25.3 billion and total Level 3 liabilities of \$1.6 billion, before netting of derivative balances.

Note 16: 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).
- 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, write-downs of individual assets or use of the measurement alternative for nonmarketable equity securities.

Table 16.9 provides the fair value hierarchy and fair value at the date of the nonrecurring fair value adjustment for all assets that were still held as of March 31, 2019, and December 31, 2018, and for which a nonrecurring fair value adjustment was recorded during the three months ended March 31, 2019 and year ended December 31, 2018.

Table 16.9: Fair Value on a Nonrecurring Basis

(in millions)	March 31, 2019				December 31, 2018			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Mortgage loans held for sale (LOCOM) (1)	\$ —	1,712	1,272	2,984	—	1,213	1,233	2,446
Loans held for sale	—	5	—	5	—	313	—	313
Loans:								
Commercial	—	147	—	147	—	339	—	339
Consumer	—	117	—	117	—	346	1	347
Total loans (2)	—	264	—	264	—	685	1	686
Nonmarketable equity securities (3)	—	553	46	599	—	774	157	931
Other assets (4)	—	169	—	169	—	149	6	155
Total assets at fair value on a nonrecurring basis	\$ —	2,703	1,318	4,021	—	3,134	1,397	4,531

(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) Consists of certain nonmarketable equity securities that are measured at fair value on a nonrecurring basis, including observable price adjustments for nonmarketable equity securities carried under the measurement alternative.

(4) Includes the fair value of foreclosed real estate, other collateral owned and operating lease assets.

Table 16.10 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 16.10: Change in Value of Assets with Nonrecurring Fair Value Adjustment

(in millions)	Quarter ended March 31,	
	2019	2018
Mortgage loans held for sale (LOCOM)	\$ 20	7
Loans held for sale	—	(82)
Loans:		
Commercial	(74)	(81)
Consumer	(79)	(107)
Total loans (1)	(153)	(188)
Nonmarketable equity securities (2)	149	208
Other assets (3)	(18)	(22)
Total	\$ (2)	(77)

(1) Represents write-downs of loans based on the appraised value of the collateral.

(2) Includes impairment losses for nonmarketable equity securities accounted for under the equity method and measurement alternative. Also includes observable price adjustments for nonmarketable equity securities accounted for under the measurement alternative.

(3) 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.

Note 16: Fair Values of Assets and Liabilities (continued)

Table 16.11 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 16.11: Valuation Techniques – Nonrecurring Basis

(\$ in millions)	Fair Value Level 3	Valuation Technique(s) (1)	Significant Unobservable Inputs (1)	Range of inputs	Weighted Average (2)
March 31, 2019					
Residential mortgage loans held for sale (LOCOM)	\$ 1,272 (3)	Discounted cash flow	Default rate (4)	0.2 — 4.1%	1.9%
			Discount rate	1.5 — 8.5	4.0
			Loss severity	0.4 — 70.3	1.7
			Prepayment rate (5)	2.7 — 100.0	40.7
Nonmarketable equity securities	—	Discounted cash flow	Discount rate	— — —	—
Insignificant level 3 assets	46				
Total	\$ 1,318				
December 31, 2018					
Residential mortgage loans held for sale (LOCOM)	\$ 1,233 (3)	Discounted cash flow	Default rate (4)	0.2 — 2.3%	1.4%
			Discount rate	1.5 — 8.5	4.0
			Loss severity	0.5 — 66.0	1.7
			Prepayment rate (5)	3.5 — 100.0	46.5
Nonmarketable equity securities	7	Discounted cash flow	Discount rate	10.5 — 10.5	10.5
Insignificant level 3 assets	157				
Total	\$ 1,397				

(1) Refer to the narrative following Table 16.8 for a definition of the valuation technique(s) and significant unobservable inputs.

(2) For residential MLHFS, weighted averages are calculated using the outstanding unpaid principal balance of the loans.

(3) Consists of approximately \$1.2 billion of government insured/guaranteed loans purchased from GNMA-guaranteed mortgage securitizations at both March 31, 2019, and December 31, 2018, and \$26 million and \$27 million, respectively, of other mortgage loans that are not government insured/guaranteed.

(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.

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 18 (Fair Values of Assets and Liabilities) to Financial Statements in our 2018 Form 10-K.

Table 16.12 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 16.12: Fair Value Option

(in millions)	March 31, 2019			December 31, 2018		
	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
Mortgage loans held for sale:						
Total loans	\$ 11,091	10,883	208	11,771	11,573	198
Nonaccrual loans	128	157	(29)	127	158	(31)
Loans 90 days or more past due and still accruing	7	9	(2)	7	9	(2)
Loans held for sale:						
Total loans	998	1,056	(58)	1,469	1,536	(67)
Nonaccrual loans	57	71	(14)	21	32	(11)
Loans:						
Total loans	225	255	(30)	244	274	(30)
Nonaccrual loans	166	196	(30)	179	208	(29)
Equity securities (1)	6,381	N/A	N/A	5,455	N/A	N/A

(1) Consists of nonmarketable equity securities carried at fair value.

Note 16: 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 16.13 by income statement line item. Amounts recorded as interest income are excluded from Table 16.13.

Table 16.13: Fair Value Option – Changes in Fair Value Included in Earnings

(in millions)	2019				2018			
	Mortgage banking noninterest income	Net gains (losses) from trading activities	Net gains from equity securities	Other noninterest income	Mortgage banking noninterest income	Net gains (losses) from trading activities	Net gains from equity securities	Other noninterest income
Quarter ended March 31,								
Mortgage loans held for sale	\$ 214	—	—	—	(59)	—	—	—
Loans held for sale	—	14	—	1	—	6	—	—
Loans	—	—	—	—	—	—	—	(1)
Equity securities	—	—	926	—	—	—	101	—
Other interests held (1)	—	(1)	—	—	—	(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 16.14 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 16.14: Fair Value Option – Gains/Losses Attributable to Instrument-Specific Credit Risk

(in millions)	Quarter ended March 31,	
	2019	2018
Gains (losses) attributable to instrument-specific credit risk:		
Mortgage loans held for sale	\$ (4)	1
Loans held for sale	14	6
Total	\$ 10	7

Disclosures about Fair Value of Financial Instruments

Table 16.15 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 16.2 in this Note. The carrying amounts in the following table are recorded on the balance sheet under the indicated captions.

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 16.15: Fair Value Estimates for Financial Instruments

(in millions)	Carrying amount	Estimated fair value			
		Level 1	Level 2	Level 3	Total
March 31, 2019					
Financial assets					
Cash and due from banks (1)	\$ 20,650	20,650	—	—	20,650
Interest-earning deposits with banks (1)	128,318	128,036	282	—	128,318
Federal funds sold and securities purchased under resale agreements (1)	98,621	—	98,621	—	98,621
Held-to-maturity debt securities	144,990	44,693	99,475	531	144,699
Mortgage loans held for sale	3,925	—	2,701	1,272	3,973
Loans held for sale	20	—	20	—	20
Loans, net (2)	919,308	—	46,649	873,169	919,818
Nonmarketable equity securities (cost method)	5,732	—	—	5,765	5,765
Total financial assets	\$ 1,321,564	193,379	247,748	880,737	1,321,864
Financial liabilities					
Deposits (3)	\$ 138,494	—	110,129	28,346	138,475
Short-term borrowings	106,597	—	106,597	—	106,597
Long-term debt (4)	236,305	—	237,250	1,601	238,851
Total financial liabilities	\$ 481,396	—	453,976	29,947	483,923
December 31, 2018					
Financial assets					
Cash and due from banks (1)	\$ 23,551	23,551	—	—	23,551
Interest-earning deposits with banks (1)	149,736	149,542	194	—	149,736
Federal funds sold and securities purchased under resale agreements (1)	80,207	—	80,207	—	80,207
Held-to-maturity debt securities	144,788	44,339	97,275	501	142,115
Mortgage loans held for sale	3,355	—	2,129	1,233	3,362
Loans held for sale	572	—	572	—	572
Loans, net (2)	923,703	—	45,190	872,725	917,915
Nonmarketable equity securities (cost method)	5,643	—	—	5,675	5,675
Total financial assets	\$ 1,331,555	217,432	225,567	880,134	1,323,133
Financial liabilities					
Deposits (3)	\$ 130,645	—	107,448	22,641	130,089
Short-term borrowings	105,787	—	105,789	—	105,789
Long-term debt (4)	229,008	—	225,904	2,230	228,134
Total financial liabilities	\$ 465,440	—	439,141	24,871	464,012

(1) Amounts consist of financial instruments for which carrying value approximates fair value.

(2) Excludes lease financing with a carrying amount of \$19.1 billion and \$19.7 billion at March 31, 2019, and December 31, 2018, respectively.

(3) Excludes deposit liabilities with no defined or contractual maturity of \$1.1 trillion and \$1.2 trillion at March 31, 2019 and December 31, 2018, respectively.

(4) Excludes capital lease obligations under capital leases of \$34 million and \$36 million at March 31, 2019, and December 31, 2018, respectively.

Loan commitments, standby letters of credit and commercial and similar letters of credit are not included in Table 16.15. 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 \$1.0 billion at both March 31, 2019, and December 31, 2018.

Note 17: 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 17.1: Preferred Stock Shares

	March 31, 2019		December 31, 2018	
	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 I				
Floating Class A Preferred Stock (1)	100,000	25,010	100,000	25,010
Series K				
Floating Non-Cumulative Perpetual Class A Preferred Stock (2)	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	25,000	27,600
ESOP				
Cumulative Convertible Preferred Stock (3)	—	1,406,460	—	1,406,460
Total		9,586,770		9,586,770

(1) Series I preferred stock issuance relates to trust preferred securities. See Note 10 (Securitized and Variable Interest Entities) in this Report for additional information. This issuance has a floating interest rate that is the greater of three-month LIBOR plus 0.93% and 5.56975%.

(2) Floating rate for Preferred Stock, Series K, is three-month LIBOR plus 3.77%.

(3) 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 17.2: Preferred Stock – Shares Issued and Carrying Value

(in millions, except shares)	March 31, 2019				December 31, 2018			
	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)(2)								
Floating Class A Preferred Stock	25,010	2,501	2,501	—	25,010	2,501	2,501	—
Series K (1)(3)								
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	3,967,995	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	—	27,600	690	690	—
ESOP								
Cumulative Convertible Preferred Stock	1,406,460	1,407	1,407	—	1,406,460	1,407	1,407	—
Total	9,377,211	\$ 24,458	23,214	1,244	9,377,216	\$ 24,458	23,214	1,244

(1) Preferred shares qualify as Tier 1 capital.

(2) Floating rate for Preferred Stock, Series I, is the greater of three-month LIBOR plus 0.93% and 5.56975%.

(3) Floating rate for Preferred Stock, Series K, is three-month LIBOR plus 3.77%.

Note 17: 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 17.3: ESOP Preferred Stock

(in millions, except shares)	Shares issued and outstanding		Carrying value		Adjustable dividend rate	
	Mar 31, 2019	Dec 31, 2018	Mar 31, 2019	Dec 31, 2018	Minimum	Maximum
ESOP Preferred Stock						
\$1,000 liquidation preference per share						
2018	336,945	336,945	337	337	7.00%	8.00%
2017	222,210	222,210	222	222	7.00	8.00
2016	233,835	233,835	234	234	9.30	10.30
2015	144,338	144,338	144	144	8.90	9.90
2014	174,151	174,151	174	174	8.70	9.70
2013	133,948	133,948	134	134	8.50	9.50
2012	77,634	77,634	78	78	10.00	11.00
2011	61,796	61,796	62	62	9.00	10.00
2010 (1)	21,603	21,603	22	22	9.50	10.50
Total ESOP Preferred Stock (2)	1,406,460	1,406,460	\$ 1,407	1,407		
Unearned ESOP shares (3)			\$ (1,502)	(1,502)		

(1) In April 2019, all of the 2010 ESOP Preferred Stock was converted into common stock.

(2) Additional paid-in capital included \$95 million at both March 31, 2019 and December 31, 2018, related to ESOP preferred stock.

(3) 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 18: Revenue from Contracts with Customers

Our revenue includes net interest income on financial instruments and noninterest income. Table 18.1 presents our revenue by operating segment. The “Other” segment for each of the tables below 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. For additional description of our operating segments, including additional financial information and the underlying management accounting process, see Note 22 (Operating Segments).

We adopted ASU 2014-09 – *Revenue from Contracts with Customers* on a modified retrospective basis as of January 1, 2018. For details on the impact of the adoption of this ASU, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2018 Form 10-K.

Table 18.1: Revenue by Operating Segment

(in millions)	Quarter ended Mar 31,									
	Community Banking		Wholesale Banking		Wealth and Investment Management		Other (3)		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Net interest income (1)	\$ 7,248	7,195	4,534	4,532	1,101	1,112	(572)	(601)	12,311	12,238
Noninterest income:										
Service charges on deposit accounts	610	639	483	534	4	4	(3)	(4)	1,094	1,173
Trust and investment fees:										
Brokerage advisory, commissions and other fees	449	478	78	67	2,124	2,344	(458)	(486)	2,193	2,403
Trust and investment management	210	233	114	113	676	743	(214)	(239)	786	850
Investment banking	(20)	(10)	412	440	5	—	(3)	—	394	430
Total trust and investment fees	639	701	604	620	2,805	3,087	(675)	(725)	3,373	3,683
Card fees	858	821	86	87	1	1	(1)	(1)	944	908
Other fees:										
Lending related charges and fees (1)(2)	65	76	282	304	2	2	(2)	(2)	347	380
Cash network fees	109	125	—	1	—	—	—	—	109	126
Commercial real estate brokerage commissions	—	—	81	85	—	—	—	—	81	85
Wire transfer and other remittance fees	64	63	48	52	2	2	(1)	(1)	113	116
All other fees (1)	94	63	26	30	—	—	—	—	120	93
Total other fees	332	327	437	472	4	4	(3)	(3)	770	800
Mortgage banking (1)	641	842	68	93	(3)	(3)	2	2	708	934
Insurance (1)	11	28	78	79	17	18	(10)	(11)	96	114
Net gains (losses) from trading activities (1)	5	(1)	333	225	19	19	—	—	357	243
Net gains on debt securities (1)	37	—	88	1	—	—	—	—	125	1
Net gains from equity securities (1)	601	684	77	93	136	6	—	—	814	783
Lease income (1)	—	—	443	455	—	—	—	—	443	455
Other income of the segment (1)	768	594	(120)	88	(5)	(6)	(69)	(74)	574	602
Total noninterest income	4,502	4,635	2,577	2,747	2,978	3,130	(759)	(816)	9,298	9,696
Revenue	\$ 11,750	11,830	7,111	7,279	4,079	4,242	(1,331)	(1,417)	21,609	21,934

(1) Most of our revenue is not within the scope of Accounting Standards Update (ASU) 2014-09 – *Revenue from Contracts with Customers*, and additional details are included in other footnotes to our financial statements. The scope explicitly excludes net interest income as well as many other revenues for financial assets and liabilities, including loans, leases, securities, and derivatives.

(2) Represents combined amount of previously reported “Charges and fees on loans” and “Letters of credit fees”.

(3) 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.

We provide services to customers which have related performance obligations that we complete to recognize revenue. Our revenues are generally recognized either immediately upon the completion of our service or over time as we perform services. Any services performed over time generally require that we render services each period and therefore we measure our progress in completing these services based upon the passage of time.

SERVICE CHARGES ON DEPOSIT ACCOUNTS are earned on depository accounts for commercial and consumer customers and include fees for account and overdraft services. Account charges include fees for periodic account maintenance activities and event-driven services such as stop payment fees. Our obligation for event-driven services is satisfied at the time of the event when the service is delivered, while our obligation for maintenance services is satisfied over the course of each month. Our obligation for overdraft services is satisfied at the time of the overdraft.

Note 18: Revenue from Contracts with Customers (continued)

Table 18.2 presents our service charges on deposit accounts by operating segment.

Table 18.2: Service Charges on Deposit Accounts by Operating Segment

(in millions)	Quarter ended Mar 31,									
	Community Banking		Wholesale Banking		Wealth and Investment Management		Other		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Overdraft fees	\$ 417	412	1	2	—	—	—	—	418	414
Account charges	193	227	482	532	4	4	(3)	(4)	676	759
Service charges on deposit accounts	\$ 610	639	483	534	4	4	(3)	(4)	1,094	1,173

BROKERAGE ADVISORY, COMMISSIONS AND OTHER FEES

are earned for providing full-service and discount brokerage services predominantly to retail brokerage clients. These revenues include fees earned on asset-based and transactional accounts and other brokerage advisory services.

Asset-based revenues are charged based on the market value of the client's assets. The services and related obligations associated with certain of these revenues, which include investment advice, active management of client assets, or assistance with selecting and engaging a third-party advisory manager, are generally satisfied over a month or quarter. The remaining revenues include trailing commissions which are earned for selling shares to investors. Our obligation associated with earning trailing commissions is satisfied at the time shares are sold. However, these fees are received and recognized over time during the period the customer owns the shares and we

remain the broker of record. The amount of trailing commissions is variable based on the length of time the customer holds the shares and on changes in the value of the underlying assets.

Transactional revenues are earned for executing transactions at the client's direction. Our obligation is generally satisfied upon the execution of the transaction and the fees are based on the size and number of transactions executed.

Other revenues earned from other brokerage advisory services include omnibus and networking fees received from mutual fund companies in return for providing record keeping and other administrative services, and annual account maintenance fees charged to customers.

Table 18.3 presents our brokerage advisory, commissions and other fees by operating segment.

Table 18.3: Brokerage Advisory, Commissions and Other Fees by Operating Segment

(in millions)	Quarter ended Mar 31,									
	Community Banking		Wholesale Banking		Wealth and Investment Management		Other		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Asset-based revenue (1)	\$ 343	371	—	—	1,580	1,743	(343)	(371)	1,580	1,743
Transactional revenue	89	93	16	12	387	439	(98)	(100)	394	444
Other revenue	17	14	62	55	157	162	(17)	(15)	219	216
Brokerage advisory, commissions and other fees	\$ 449	478	78	67	2,124	2,344	(458)	(486)	2,193	2,403

(1) We earned trailing commissions of \$280 million and \$331 million in first quarter 2019 and 2018, respectively.

TRUST AND INVESTMENT MANAGEMENT FEES are earned for providing trust, investment management and other related services.

Investment management services include managing and administering assets, including mutual funds, and institutional separate accounts. Fees for these services are generally determined based on a tiered scale relative to the market value of assets under management (AUM). 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. Services with AUM and AUA-based fees are generally performed over time.

Trust services include acting as a trustee or agent for corporate trust, personal trust, and agency assets. Obligations for trust services are generally satisfied over time, while obligations for activities that are transactional in nature are satisfied at the time of the transaction.

Other related services include the custody and safekeeping of accounts. Our obligation for these services is generally satisfied over time.

Table 18.4 presents our trust and investment management fees by operating segment.

Table 18.4: Trust and Investment Management Fees by Operating Segment

(in millions)	Quarter ended Mar 31,									
	Community Banking		Wholesale Banking		Wealth and Investment Management		Other		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Investment management fees	\$ 1	—	—	—	477	534	—	—	478	534
Trust fees	209	221	82	86	168	188	(214)	(239)	245	256
Other revenue	—	12	32	27	31	21	—	—	63	60
Trust and investment management fees	\$ 210	233	114	113	676	743	(214)	(239)	786	850

INVESTMENT BANKING FEES are earned for underwriting debt and equity securities, arranging loan syndications and performing other advisory services. Our obligation for these services is generally satisfied at closing of the transaction. Substantially all of these fees are in the Wholesale Banking operating segment.

card interchange and network revenues are earned on credit and debit card transactions conducted through payment networks such as Visa, MasterCard, and American Express. Our obligation is satisfied concurrently with the delivery of services on a daily basis.

Table 18.5 presents our card fees by operating segment.

CARD FEES include credit and debit card interchange and network revenues and various card-related fees. Credit and debit

Table 18.5: Card Fees by Operating Segment

(in millions)	Quarter ended Mar 31,									
	Community Banking		Wholesale Banking		Wealth and Investment Management		Other		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Credit card interchange and network revenues (1)	\$ 189	171	86	87	1	1	(1)	(1)	275	258
Debit card interchange and network revenues	507	479	—	—	—	—	—	—	507	479
Late fees, cash advance fees, balance transfer fees, and annual fees	162	171	—	—	—	—	—	—	162	171
Card fees (1)	\$ 858	821	86	87	1	1	(1)	(1)	944	908

(1) The cost of credit card rewards and rebates of \$354 million and \$343 million for the quarters ended March 31, 2019 and 2018, respectively, are presented net against the related revenues.

CASH NETWORK FEES are earned for processing ATM transactions. Our obligation is completed daily upon settlement of ATM transactions. All of these fees are in the Community Banking operating segment.

WIRE TRANSFER AND OTHER REMITTANCE FEES consist of fees earned for funds transfer services and issuing cashier's checks and money orders. Our obligation is satisfied at the time of the funds transfer services or upon issuance of the cashier's check or money order. Substantially all of these fees are in the Community Banking and Wholesale Banking operating segments.

COMMERCIAL REAL ESTATE BROKERAGE COMMISSIONS are earned for assisting customers in the sale of real estate property. Our obligation is satisfied upon the successful brokering of a transaction. Fees are based on a fixed percentage of the sales price. All of these fees are in the Wholesale Banking operating segment.

ALL OTHER FEES include various types of fees earned on services to customers which have related performance obligations that we complete to recognize revenue. A majority portion of the revenue is earned from providing business payroll services and merchant services, which are generally recognized over time as we perform the services. Most of these fees are in the Community Banking operating segment.

Note 19: Employee Benefits

We sponsor a frozen noncontributory qualified defined benefit retirement plan, 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. For additional information on our pension and postretirement plans, including plan assumptions, investment strategy and asset allocation,

projected benefit payments, and valuation methodologies used for assets measured at fair value, see Note 22 (Employee Benefits and Other Expenses) to Financial Statements in our 2018 Form 10-K.

Table 19.1 presents the components of net periodic benefit cost.

Table 19.1: Net Periodic Benefit Cost

(in millions)	2019			2018		
	Pension benefits		Other benefits	Pension benefits		Other benefits
	Qualified	Non-qualified		Qualified	Non-qualified	
Quarter ended March 31,						
Service cost	\$ 3	—	—	1	—	—
Interest cost (1)	105	6	5	98	5	5
Expected return on plan assets (1)	(142)	—	(7)	(160)	—	(7)
Amortization of net actuarial loss (gain) (1)	37	2	(4)	33	3	(4)
Amortization of prior service credit (1)	—	—	(2)	—	—	(3)
Settlement loss (1)	—	2	—	—	3	—
Net periodic benefit cost (income)	\$ 3	10	(8)	(28)	11	(9)

(1) Balances are reported in other noninterest expense on the consolidated statement of income.

Note 20: Earnings and Dividends Per Common Share

Table 20.1 shows earnings per common share and diluted earnings per common share and reconciles the numerator and denominator of both earnings per common share calculations.

See Note 1 (Summary of Significant Accounting Policies) for discussion of share repurchases.

Table 20.1: Earnings Per Common Share Calculations

(in millions, except per share amounts)	Quarter ended March 31,	
	2019	2018
Wells Fargo net income	\$ 5,860	5,136
Less: Preferred stock dividends and other	353	403
Wells Fargo net income applicable to common stock (numerator)	\$ 5,507	4,733
Earnings per common share		
Average common shares outstanding (denominator)	4,551.5	4,885.7
Per share	\$ 1.21	0.97
Diluted earnings per common share		
Average common shares outstanding	4,551.5	4,885.7
Add: Stock options	2.5	9.9
Restricted share rights	30.0	28.3
Warrants	—	6.8
Diluted average common shares outstanding (denominator)	4,584.0	4,930.7
Per share	\$ 1.20	0.96

Table 20.2 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 20.2: Outstanding Anti-Dilutive Options

(in millions)	Weighted-average shares	
	Quarter ended March 31,	
	2019	2018
Options	—	0.9

Table 20.3 presents dividends declared per common share.

Table 20.3: Dividends Declared Per Common Share

	Quarter ended March 31,	
	2019	2018
Per common share	0.450	0.390

Note 21: Other Comprehensive Income

Table 21.1 provides the components of OCI, reclassifications to net income by income statement line item, and the related tax effects.

Table 21.1: Summary of Other Comprehensive Income

(in millions)	Quarter ended March 31,					
	2019			2018		
	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax
Debt securities:						
Net unrealized gains (losses) arising during the period	\$ 2,831	(695)	2,136	(3,443)	848	(2,595)
Reclassification of net (gains) losses to net income:						
Interest income on debt securities (1)	45	(11)	34	69	(17)	52
Net gains on debt securities	(125)	31	(94)	(1)	—	(1)
Other noninterest income	(1)	—	(1)	—	—	—
Subtotal reclassifications to net income	(81)	20	(61)	68	(17)	51
Net change	2,750	(675)	2,075	(3,375)	831	(2,544)
Derivatives and hedging activities:						
Fair Value Hedges:						
Change in fair value of excluded components on fair value hedges (2)	(26)	7	(19)	24	(6)	18
Cash Flow Hedges:						
Net unrealized losses arising during the period on cash flow hedges	(9)	2	(7)	(266)	66	(200)
Reclassification of net losses to net income on cash flow hedges:						
Interest income on loans	78	(19)	59	60	(15)	45
Interest expense on long-term debt	1	—	1	—	—	—
Subtotal reclassifications to net income	79	(19)	60	60	(15)	45
Net change	44	(10)	34	(182)	45	(137)
Defined benefit plans adjustments:						
Net actuarial and prior service gains (losses) arising during the period	(4)	1	(3)	6	(2)	4
Reclassification of amounts to non interest expense:						
Amortization of net actuarial loss	35	(8)	27	32	(8)	24
Settlements and other	—	—	—	—	1	1
Subtotal reclassifications to non interest expense	35	(8)	27	32	(7)	25
Net change	31	(7)	24	38	(9)	29
Foreign currency translation adjustments:						
Net unrealized gains (losses) arising during the period	42	(2)	40	(2)	(5)	(7)
Net change	42	(2)	40	(2)	(5)	(7)
Other comprehensive income (loss)	\$ 2,867	(694)	2,173	(3,521)	862	(2,659)
Less: Other comprehensive income from noncontrolling interests, net of tax						
Wells Fargo other comprehensive income (loss), net of tax			\$ 2,173			(2,659)

(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) Represents changes in fair value of cross-currency swaps attributable to changes in cross-currency basis spreads, which are excluded from the assessment of effectiveness recorded in other comprehensive income.

Table 21.2: Cumulative OCI Balances

(in millions)	Debt securities	Derivatives and hedging activities	Defined benefit plans adjustments	Foreign currency translation adjustments	Cumulative other compre- hensive income
Quarter ended March 31, 2019					
Balance, beginning of period	\$ (3,122)	(685)	(2,296)	(233)	(6,336)
Transition adjustment (1)	481	—	—	—	481
Balance, January 1, 2019	(2,641)	(685)	(2,296)	(233)	(5,855)
Net unrealized gains (losses) arising during the period	2,136	(26)	(3)	40	2,147
Amounts reclassified from accumulated other comprehensive income	(61)	60	27	—	26
Net change	2,075	34	24	40	2,173
Less: Other comprehensive income from noncontrolling interests	—	—	—	—	—
Balance, end of period	\$ (566)	(651)	(2,272)	(193)	(3,682)
Quarter ended March 31, 2018					
Balance, beginning of period	\$ 171	(418)	(1,808)	(89)	(2,144)
Transition adjustment (2)	(118)	—	—	—	(118)
Balance, January 1, 2018	53	(418)	(1,808)	(89)	(2,262)
Net unrealized gains (losses) arising during the period	(2,595)	(182)	4	(7)	(2,780)
Amounts reclassified from accumulated other comprehensive income	51	45	25	—	121
Net change	(2,544)	(137)	29	(7)	(2,659)
Less: Other comprehensive income from noncontrolling interests	—	—	—	—	—
Balance, end of period	\$ (2,491)	(555)	(1,779)	(96)	(4,921)

- (1) The transition adjustment relates to the adoption of ASU 2017-08 – Receivables – Nonrefundable Fees and Other Costs (Subtopic 310-20): *Premium Amortization on Purchased Callable Debt Securities*. See Note 1 (Summary of Significant Accounting Policies) for more information.
- (2) The transition adjustment relates to the adoption of ASU 2016-01 – Financial Instruments – Overall (Subtopic 825-10): *Recognition and Measurement of Financial Assets and Financial Liabilities*. See Note 1 (Summary of Significant Accounting Policies) for more information.

Note 22: 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 see Note 26 (Operating Segments) to Financial Statements in our 2018 Form 10-K. Table 22.1 presents our results by operating segment.

Table 22.1: Operating Segments

(income/expense in millions, average balances in billions)	Community Banking		Wholesale Banking		Wealth and Investment Management		Other (1)		Consolidated Company	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Quarter ended March 31,										
Net interest income (2)	\$ 7,248	7,195	4,534	4,532	1,101	1,112	(572)	(601)	12,311	12,238
Provision (reversal of provision) for credit losses	710	218	134	(20)	4	(6)	(3)	(1)	845	191
Noninterest income	4,502	4,635	2,577	2,747	2,978	3,130	(759)	(816)	9,298	9,696
Noninterest expense	7,689	8,702	3,838	3,978	3,303	3,290	(914)	(928)	13,916	15,042
Income (loss) before income tax expense (benefit)	3,351	2,910	3,139	3,321	772	958	(414)	(488)	6,848	6,701
Income tax expense (benefit)	424	809	369	448	192	239	(104)	(122)	881	1,374
Net income (loss) before noncontrolling interests	2,927	2,101	2,770	2,873	580	719	(310)	(366)	5,967	5,327
Less: Net income (loss) from noncontrolling interests	104	188	—	(2)	3	5	—	—	107	191
Net income (loss) (3)	\$ 2,823	1,913	2,770	2,875	577	714	(310)	(366)	5,860	5,136
Average loans	\$ 458.2	470.5	476.4	465.1	74.4	73.9	(59.0)	(58.5)	950.0	951.0
Average assets	1,015.4	1,061.9	844.5	829.2	83.2	84.2	(60.0)	(59.4)	1,883.1	1,915.9
Average deposits	765.6	747.5	409.8	446.0	153.2	177.9	(66.5)	(74.2)	1,262.1	1,297.2

- (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 as well as interest credits for any funding of a segment available to be provided to other segments. The cost of liabilities includes actual interest expense on segment liabilities as well as funding charges for any funding provided from other segments.
- (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 23: 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 23.1 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 Standardized Approach applies assigned risk weights to broad risk categories, while the calculation of risk-weighted assets (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 capital rules are being phased-in effective January 1, 2014, through the end of 2021. Beginning January 1, 2018, the requirements for calculating CET1 and tier 1 capital, along with RWAs, became fully phased-in. Accordingly, the information presented reflects fully phased-in CET1 capital, tier 1 capital, and RWAs, but reflects total capital still in accordance with Transition Requirements.

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 March 31, 2019, 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 23.1: Regulatory Capital Information

(in millions, except ratios)	Wells Fargo & Company				Wells Fargo Bank, N.A.			
	March 31, 2019		December 31, 2018		March 31, 2019		December 31, 2018	
	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Regulatory capital:								
Common equity tier 1	\$ 148,124	148,124	146,363	146,363	145,091	145,091	142,685	142,685
Tier 1	169,611	169,611	167,866	167,866	145,091	145,091	142,685	142,685
Total	199,851	208,042	198,798	207,041	158,074	165,836	155,558	163,380
Assets:								
Risk-weighted assets	\$ 1,176,360	1,243,125	1,177,350	1,247,210	1,056,290	1,143,763	1,058,653	1,154,182
Adjusted average assets (1)	1,854,367	1,854,367	1,850,299	1,850,299	1,647,785	1,647,785	1,652,009	1,652,009
Regulatory capital ratios:								
Common equity tier 1 capital	12.59%	11.92 *	12.43	11.74 *	13.74	12.69 *	13.48	12.36 *
Tier 1 capital	14.42	13.64 *	14.26	13.46 *	13.74	12.69 *	13.48	12.36 *
Total capital	16.99	16.74 *	16.89	16.60 *	14.97	14.50 *	14.69	14.16 *
Tier 1 leverage (1)	9.15	9.15	9.07	9.07	8.81	8.81	8.64	8.64
Supplementary leverage: (2)								
Total leverage exposure	\$	2,180,614		2,174,564		1,951,217		1,957,276
Supplementary leverage ratio		7.78%		7.72		7.44		7.29

*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.

(2) The supplementary leverage ratio consists of Tier 1 capital divided by 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.

Table 23.2 presents the minimum required regulatory capital ratios under Transition Requirements to which the Company and the Bank were subject as of March 31, 2019, and December 31, 2018.

Table 23.2: Minimum Required Regulatory Capital Ratios – Transition Requirements (1)

	Wells Fargo & Company		Wells Fargo Bank, N.A.	
	March 31, 2019	December 31, 2018	March 31, 2019	December 31, 2018
Regulatory capital ratios:				
Common equity tier 1 capital	9.000%	7.875	7.000	6.375
Tier 1 capital	10.500	9.375	8.500	7.875
Total capital	12.500	11.375	10.500	9.875
Tier 1 leverage	4.000	4.000	4.000	4.000
Supplementary leverage	5.000	5.000	6.000	6.000

(1) At March 31, 2019, under transition requirements, the CET1, tier 1 and total capital minimum ratio requirements for Wells Fargo & Company include a capital conservation buffer of 2.500% and a global systemically important bank (G-SIB) surcharge of 2.000%. Only the 2.500% capital conservation buffer applies to the Bank at March 31, 2019.

Glossary of Acronyms

ACL	Allowance for credit losses	HQLA	High-quality liquid assets
ALCO	Asset/Liability Management Committee	HTM	Held to maturity
ARM	Adjustable-rate mortgage	LCR	Liquidity coverage ratio
ASC	Accounting Standards Codification	LHFS	Loans held for sale
ASU	Accounting Standards Update	LIBOR	London Interbank Offered Rate
AUA	Assets under administration	LIHTC	Low income housing tax credit
AUM	Assets under management	LOCOM	Lower of cost or fair value
AVM	Automated valuation model	LTV	Loan-to-value
BCBS	Basel Committee on Bank Supervision	MBS	Mortgage-backed security
BHC	Bank holding company	MLHFS	Mortgage loans held for sale
CCAR	Comprehensive Capital Analysis and Review	MSR	Mortgage servicing right
CD	Certificate of deposit	NAV	Net asset value
CDO	Collateralized debt obligation	NPA	Nonperforming asset
CDS	Credit default swaps	OCC	Office of the Comptroller of the Currency
CECL	Current expected credit loss	OCI	Other comprehensive income
CET1	Common Equity Tier 1	OTC	Over-the-counter
CFPB	Consumer Financial Protection Bureau	OTTI	Other-than-temporary impairment
CLO	Collateralized loan obligation	PCI Loans	Purchased credit-impaired loans
CLTV	Combined loan-to-value	PTPP	Pre-tax pre-provision profit
CPI	Collateral protection insurance	RBC	Risk-based capital
CPP	Capital Purchase Program	RMBS	Residential mortgage-backed securities
CRE	Commercial real estate	ROA	Wells Fargo net income to average total assets
DPD	Days past due	ROE	Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity
ESOP	Employee Stock Ownership Plan	ROTCE	Return on average tangible common equity
FAS	Statement of Financial Accounting Standards	RWAs	Risk-weighted assets
FASB	Financial Accounting Standards Board	SEC	Securities and Exchange Commission
FDIC	Federal Deposit Insurance Corporation	S&P	Standard & Poor's Global Ratings
FHA	Federal Housing Administration	SLR	Supplementary leverage ratio
FHLB	Federal Home Loan Bank	SOFR	Secured Overnight Financing Rate
FHLMC	Federal Home Loan Mortgage Corporation	SPE	Special purpose entity
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	WIM	Wealth and Investment Management
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 14 (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 March 31, 2019.

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 authorizations
January	21,996,861	\$ 48.68	373,337,554
February	29,472,213	49.15	343,865,341
March	45,894,636	50.12	297,970,705
Total	97,363,710		

- (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 23, 2018, or an authorization covering up to an additional 350 million shares of common stock approved by the Board of Directors and publicly announced by the Company on October 23, 2018. Unless modified or revoked by the Board, these authorizations do not expire.

Item 6. Exhibits

A list of exhibits to this Form 10-Q is set forth below.

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.

<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.	Filed herewith.
3(b)	By-Laws.	Incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed March 1, 2018.
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)	Long-Term Incentive Compensation Plan (as amended and restated on April 23, 2019)	Incorporated by reference to Exhibit 10(b) to the Company's Current Report on Form 8-K filed April 26, 2019.
	Form of Cash Award Agreement:	
	For grants on or after February 26, 2019.	Filed herewith.
	Form of Restricted Share Rights Award Agreement:	
	For grants on or after April 7, 2019.	Filed herewith.
10(b)	Wells Fargo Bonus Plan, as amended effective January 1, 2019.	Filed herewith.
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.

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: May 3, 2019

WELLS FARGO & COMPANY

By: /s/ RICHARD D. LEVY
Richard D. Levy
Executive Vice President and Controller
(Principal Accounting Officer)