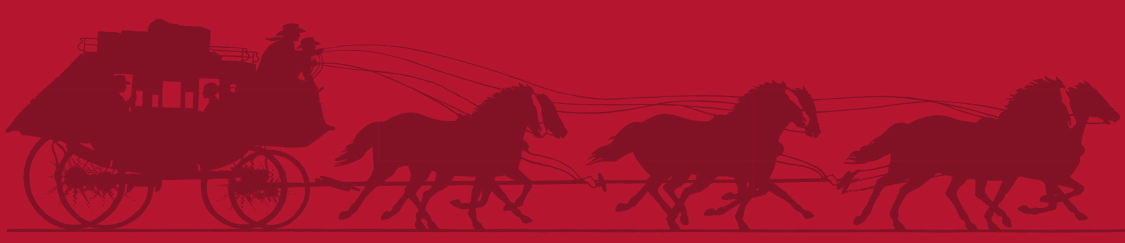
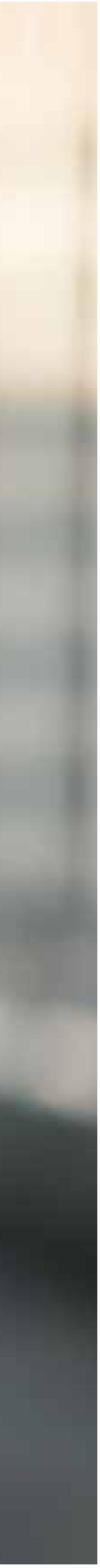
WELLS FARGO

Our Commitment



WELLS FARGO & COMPANY ANNUAL REPORT 2016

Contents



Dear Fellow Shareholders,

Since 1852, Wells Fargo has worked to earn customers' trust by meeting their financial needs and helping them succeed financially, while maintaining the highest standards of integrity. That is why my fellow Board members and I were deeply troubled that Wells Fargo violated that trust by opening accounts for certain retail banking customers that they did not request or in some cases even know about. This behavior is unacceptable, not only to the Board but also to the overwhelming majority of our people who are hard-working and highly ethical.

We have taken aggressive action to root out these practices and to compensate our customers who were harmed by them. We recognize that these events signaled a need for fundamental changes in Wells Fargo's culture, management systems, and executive leadership. Most significant among the many changes we have made is naming Tim Sloan CEO and Mary Mack head of the Community Bank. Together, Tim and Mary are leading a wave of change in the Community Bank's culture, performance management, compensation systems, and risk reporting structure -- all designed to ensure these problems never recur. These changes, as well as our actions to make things right with our customers, are detailed in Tim's letter which follows.

Wells Fargo's Board of Directors has been actively involved in these management actions and has taken additional steps to strengthen our oversight and governance capabilities. We have changed the company's bylaws to specify that the Board Chair be an independent Director, and we have bolstered Board leadership by naming Betsy Duke Vice Chair. We have accelerated our ongoing process of Board refreshment by electing two talented new Directors to succeed long-serving Board members. We have also modified Board committee charters to strengthen oversight of such aspects as team member culture, ethics line reports and consumer complaints.

The independent Directors are conducting our own investigation to ensure we understand the root causes of the sales practices problem and have learned the lessons that will prevent any future recurrence. We expect to make findings of the investigation public before our 2017 Annual Meeting of Shareholders.

We have enforced senior management accountability for the damage to Wells Fargo's reputation through very significant compensation actions. The Board accepted John Stumpf's recommendation to forfeit all of his unvested equity of approximately $41 million prior to his retirement as Chairman and CEO. The Board required Carrie Tolstedt, the departed head of Community Banking, to forfeit all of her approximately $19 million of unvested equity.

In addition, given the overall impact on Wells Fargo's stakeholders in 2016, the eight current members of our 11-person Operating Committee who were in place before it was reconstituted in November 2016, including our new CEO Tim Sloan, received no cash bonuses for 2016 and forfeited up to 50% of the amounts they would have otherwise received under their 2014 performance share awards that vested following 2016. Combined, these amounts represent lost compensation of approximately $32 million, based on 2016 target bonuses and our share price on February 28, 2017, when the Board took these actions.

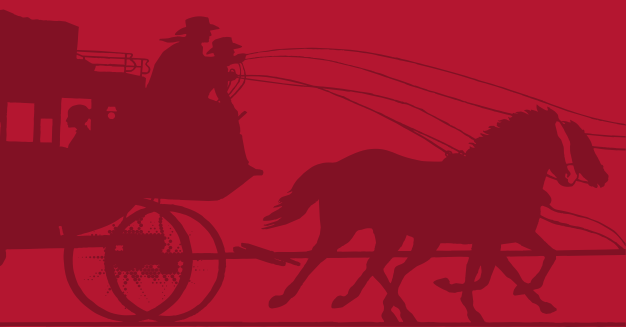
While the Board and management have made significant changes in the wake of the sales practices issue, I want to assure our shareholders that important aspects of Wells Fargo will not change. We serve the financial needs of one in three U.S. households, and we remain committed to generating long-term shareholder value by delivering superior returns across a variety of market conditions due to our diverse business model. However, there is no question that the impact of improper sales practices has damaged our company's reputation and the bond of trust with our customers. The Board, management and Wells Fargo's 269,000 team members are determined to restore that reputation and re-establish that bond of trust. I am confident that we will use this moment of testing to make Wells Fargo stronger in the years ahead.

Sincerely,

Stephen W. Sanger
Chairman of the Board

We are fully committed to making things right for our stakeholders and rebuilding trust. This is a long-term effort — one requiring commitment, patience, and resolve.

Timothy J. Sloan
Chief Executive Officer and President
Wells Fargo & Company



To Our Owners:

This is my first annual report to shareholders, and I am pleased to have this opportunity to share my thoughts on Wells Fargo — our accomplishments, challenges, and decisive steps to rebuild trust — as part of our regular, ongoing conversation about our company.

In October 2016, I was honored to be chosen by our board of directors to succeed John Stumpf as CEO and to lead Wells Fargo into the future. John successfully navigated the company through the financial crisis of 2008–2009 and the largest merger in banking; now, I am fully dedicated to guiding our company forward at this critical moment in our 165-year history.

I want to start by stating clearly that the foundation of our company is strong. Despite our current challenges, I believe that our underlying business strengths and our focus on managing for the long term will continue to benefit us as we move forward. We have meaningful opportunities, as you will read later in this letter, and we will be prepared to deliver for all of our stakeholders. As always, we take our commitment to our team members, customers, shareholders, and communities very seriously, and we manage with those constituents in mind.

Our challenges in 2016 were among the toughest in our company's history. Unacceptable sales practices in our retail bank resulted in accounts being opened for customers that they were unaware of and neither needed nor wanted. This exposed behaviors that needed to be addressed. These behaviors were contrary to our values, raised questions about our culture, and damaged our reputation and the trust of many of our stakeholders. I want to assure you that we are facing these problems head on, and I am confident that Wells Fargo will emerge a stronger company.

Our top priority is rebuilding trust through a comprehensive plan that includes making things right for our customers and team members, ensuring we fix problems at their root cause, and building a better bank for the future. We are committed to transparency as we connect with all stakeholders more frequently through increased communications.

We are conducting thorough reviews and investigations to fully understand where things broke down and where we failed. We are committed to learning from our mistakes because we recognize the inappropriate sales practices in our retail bank did not serve the interests of our customers, our team members, or our company. And despite efforts to set things right, we did not move quickly enough to address these issues.

All of this was unacceptable, and the lessons we learned must never be forgotten as we make changes necessary to regain our status as one of the world's best financial institutions.

REBUILDING TRUST

MAKING IT RIGHT FOR CUSTOMERS AND TEAM MEMBERS

We are fully committed to making things right for our stakeholders and rebuilding trust. This is a long-term effort — one requiring commitment, patience, and resolve.

At the outset, we employed a third-party consultant to review accounts and identify impacted customers. We reviewed more than 94 million checking, credit card, and line of credit accounts, dating from 2011 to 2016. Based on that review, we refunded more than $3.2 million in charges and fees on approximately 130,000 accounts that we could not rule out as being initiated without a customer's authorization. We also reached out to approximately 40 million retail customers and 3 million small businesses through email, statement messaging, and postcards to ensure those affected by the unacceptable sales practices could reach us. We are researching how customers' credit scores were impacted as a result of potentially unauthorized credit cards, with the goal of aiding customers whose credit scores might have been affected. And we decided to go beyond the requirements of our sales practices consent orders to expand our account reviews to include the years 2009 and 2010.

We also want to rebuild trust with our team members. A cornerstone of this effort is communicating more frequently and with greater transparency. Between September 2016 and January 2017, members of the Operating Committee held 50 in-person sessions with team members in more than 40 cities. These sessions reached thousands of team members in person, and tens of thousands participated through satellite broadcasts, streaming to desktops, and other communications channels.

Though more work lies ahead, our focus is to uphold our long-held values that respect and honor our customers, team members, shareholders, and community partners.

As a part of this outreach, we actively sought and welcomed team member feedback, and we put that feedback into action to make our company better. One example is the role team members are playing as part of a third-party review of our EthicsLine process, which team members use to escalate concerns about their work or the company. Their recommendations are influencing our approach to the review and will shape the improvements we make to the process. In addition, we regularly survey team members on how they feel about Wells Fargo. In 2017, every Wells Fargo team member will be invited to provide feedback about our culture through a review conducted by an independent third party.

Our work to rebuild trust also includes an ongoing dialogue with community leaders, because we want to be viewed as a trusted and reliable partner in the work these nonprofit organizations do to strengthen communities. Since September, we have met regularly with nonprofit organizations, sharing specifics about our efforts to rebuild trust.

In addition, we are engaging with elected officials at the federal, state, and local levels, as well as industry regulators, to answer their questions and receive their feedback. We take their concerns and our accountability to their chief stakeholder — the American public — very seriously and are committed to regaining their trust.

Finally, we have increased the information we disclose to our investors, so you can more readily see the impact the sales practices matters have had on our business and the actions we have taken in response. For example, in October, we began providing monthly updates detailing trends in our retail bank's customer activity. In May 2017, we will host an off-cycle Investor Day to provide more details, including the changes we are making across the company to better serve our customers and build a stronger Wells Fargo.

Though more work lies ahead, our focus is to uphold our long-held values that respect and honor our customers, team members, shareholders, and community partners.

FIXING THE PROBLEM

As we've worked to rebuild trust, we've enlisted the help of third parties. Why? We know we don't have all the answers and are open to learning from others as we fix problems that we never want to happen again. This includes going beyond what has been required of us by our regulators as we are reviewing sales practices in all of our lines of business, the EthicsLine work I mentioned earlier, and the comprehensive review of our company's culture.

In the Community Bank, we made a change at the top when Mary Mack assumed leadership of the team. She has worked on decisive fixes, including our October 1, 2016, decision to eliminate product sales goals for our branch team members, a move that will help ensure our retail bankers do not put their interests ahead of our customers. We've also introduced a mystery shopper program and have enhanced our customer communication by providing an automated email confirmation when a new checking or savings account is opened and a letter after submission of a credit card application.

In January 2017, we introduced a new compensation plan for our retail bankers that we developed with the assistance of a leading human resources and compensation consulting firm. This plan emphasizes team incentives over individual incentives, has a greater focus on oversight and controls, and is based on measures that we believe better reflect the value and quality of the service we provide our customers. Though this is just one aspect of the many changes we are making to our retail banking operations, we believe it will play a significant role in our effort to ensure our customers receive an exceptional level of service and advice from our team members.

BUILDING A BETTER BANK

Rebuilding trust includes improving our company's governance and making our company more customer-centric — focusing on how best to serve and protect customers today, tomorrow, and well into the future.

Earlier this year, we formed the Office of Ethics, Oversight and Integrity within our Corporate Risk organization to ensure that all Wells Fargo team members are working according to our vision and values, team members and customers are protected, and we listen and act when team members escalate issues of concern regarding the integrity of our operations. This office combines the previous organizations of Global Ethics and Integrity, Sales Practices Oversight, Internal Investigations, and Complaints Oversight. Among other activities, this office will drive additional training for managers throughout the organization, because we want them to know how to effectively and appropriately respond to team members when issues are escalated.

We are excited by the opportunity to leverage technology to create a banking experience that reflects the unique relationship we hope to form with each of our customers.

Effective risk management protects and benefits all of our stakeholders. In 2016, we began an extensive effort to evaluate risk management across the company, resulting in several important changes, including moving many of our risk team members from the lines of business to the enterprise Corporate Risk organization to provide greater role clarity, increased consistency and coordination, and stronger oversight.

Additionally, we began the process of realigning and centralizing staff groups throughout Wells Fargo, including Finance, Marketing, Communications, Human Resources, and Compliance — moves to make us more efficient and coordinated and to enable greater consistency and effectiveness of our staff services. This frees up resources for key strategic priorities.

As part of our focus on innovation, we formed a new business group — Payments, Virtual Solutions and Innovation, led by Avid Modjtabai. The group brings together teams charged with creating the next generation of payments capabilities and digital and online offerings for our customers, enabling them to bank when, where, and how they want. We are excited by the opportunity to leverage technology to create a banking experience that reflects the unique relationship we hope to form with each of our customers.

FINANCIAL REPORT

As difficult as 2016 was in many respects, the company delivered solid financial performance for our shareholders. Through a balanced mix of net interest income and noninterest income, Wells Fargo generated $88.3 billion in revenue in 2016, up 3 percent from 2015, and net income of $21.9 billion, or $3.99 of diluted earnings per common share.

Our performance occurred despite the challenges of low interest rates, sluggish economic growth, and global volatility that included a dramatic decline in oil prices during the year. These results reflected the determination of our team members and the benefits of our diversified business model and strong risk discipline. In fact, in the fourth quarter, we earned more than $5 billion for the 17th consecutive quarter — one of only two U.S. companies to do so.

Core building blocks of long-term value creation — deposits, loans, and capital — continued to grow in 2016. At year-end, total deposits were $1.3 trillion, up 7 percent from the prior year, while the company's loan portfolio, the largest of all U.S. banks, finished 2016 at $967.6 billion, up 6 percent from 2015.

The credit quality of our portfolio continued to be strong, driven by solid performance in the commercial and consumer real estate portfolios and continued improvement in residential real estate. Nonaccrual loans were down $998 million, or 9 percent, from 2015. Credit losses increased 22 percent over 2015 to $3.5 billion, driven largely by higher losses in our oil and gas portfolio. However, net charge-offs as a percentage of average loans were 0.37 percent in 2016, compared with 0.33 percent in 2015, remaining near historic lows.

From a capital standpoint, we ended 2016 with total equity of $200.5 billion, Common Equity Tier 1 capital of $146.4 billion, and a Common Equity Tier 1 capital ratio (fully phased-in) of 10.77 percent,[1] well above our regulatory minimum of 9 percent.

1 For more information on our regulatory capital and related ratios, please see the "Financial Review – Capital Management" section in this Report.

Our Performance

$ in millions, except per share amounts	2016	2015	% CHANGE
FOR THE YEAR			
Wells Fargo net income	$ 21,938	22,894	(4)
Wells Fargo net income applicable to common stock	20,373	21,470	(5)
Diluted earnings per common share	3.99	4.12	(3)
Profitability ratios:			
Wells Fargo net income to average assets (ROA)	1.16%	1.31	(11)
Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity (ROE)	11.49	12.60	(9)
Return on average tangible common equity (ROTCE)[1]	13.85	15.17	(9)
Efficiency ratio[2]	59.3	58.1	2
Total revenue	$ 88,267	86,057	3
Pre-tax pre-provision profit[3]	35,890	36,083	(1)
Dividends declared per common share	1.515	1.475	3
Average common shares outstanding	5,052.8	5,136.5	(2)
Diluted average common shares outstanding	5,108.3	5,209.8	(2)
Average loans	$ 949,960	885,432	7
Average assets	1,885,441	1,742,919	8
Average total deposits	1,250,566	1,194,073	5
Average consumer and small business banking deposits[4]	732,620	680,221	8
Net interest margin	2.86%	2.95	(3)
AT YEAR-END			
Investment securities	$ 407,947	347,555	17
Loans	967,604	916,559	6
Allowance for loan losses	11,419	11,545	(1)
Goodwill	26,693	25,529	5
Assets	1,930,115	1,787,632	8
Deposits	1,306,079	1,223,312	7
Common stockholders' equity	176,469	172,036	3
Wells Fargo stockholders' equity	199,581	192,998	3
Total equity	200,497	193,891	3
Tangible common equity[1]	146,737	143,337	2
Capital ratios[5]:			
Total equity to assets	10.39%	10.85	(4)
Risk-based capital[6]:			
Common Equity Tier 1	11.13	11.07	1
Tier 1 capital	12.82	12.63	2
Total capital	16.04	15.45	4
Tier 1 leverage	8.95	9.37	(4)
Common shares outstanding	5,016.1	5,092.1	(1)
Book value per common share[7]	$ 35.18	33.78	4
Tangible book value per common share[1,7]	29.25	28.15	4
Team members (active, full-time equivalent)	269,100	264,700	2

1 Tangible common equity is a non-GAAP financial measure and represents total equity less preferred equity, noncontrolling interests, and goodwill and certain identifiable intangible assets (including goodwill and intangible assets associated with certain of our nonmarketable equity investments 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 "Financial Review – 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 See the "Financial Review – Capital Management" section and Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report for additional information.

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

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

Ongoing efforts to increase operational efficiency remain a priority, and we made good progress in 2016. Through centralizing operations, process improvements, and close management of discretionary spending, we generated savings to support reinvestment for growth and stability through innovation efforts, expanded risk management, and continued investment in technology and cybersecurity.

COMPANY UPDATE

Even as we faced many challenges in 2016, our team members continued to focus on serving and meeting the financial needs of our customers. Because of their commitment and the confidence our customers continue to place in us, one in three U.S. households relies on Wells Fargo to help them succeed financially.

OUR CUSTOMERS

Our customers depend on Wells Fargo's integrated mobile, online, and branch-based banking services; retirement savings offerings; financial services and guidance for businesses large and small; and banking services that support the growth of U.S. companies doing business here and abroad.

They rely on us to achieve sustainable homeownership. This includes the low- and moderate-income households that took advantage of our *your*First Mortgage℠ product, which we launched in 2016. With a down payment option as low as 3 percent for a fixed-rate loan, lower out-of-pocket costs, and incentives for completing a homebuyer education program, *your*First Mortgage helped more than 18,000 customers achieve sustainable homeownership, generating more than $3.9 billion in mortgage financing in 2016.

With digital account management and payment tools, we help customers manage their financial lives, wherever and however they want. For example, we developed in-house the Wells Fargo Wallet for Android payment tool, which launched last year. Also in 2016, clients of Wells Fargo Advisors benefitted from a redesigned, secure website that made information about their financial assets available on one web page. This spring, we plan to offer even greater convenience when our customers will be able to use any one of our 13,000 ATMs card-free. An 8-digit passcode generated by a customer's mobile app will allow them to enter an ATM PIN and complete a transaction without using an ATM card.

As the No. 1 small business lender in the U.S.,[2] we know that access to capital is greatly valued by small business owners. This is why we introduced the Wells Fargo Works *for Small Business*® Business Credit Center, which provides tools and resources that empower small business owners to navigate the credit journey with confidence. The center, part of Wells Fargo's focus on expanding small business access to capital, provides small business owners with financing options, tips on the application process, and credit management. Our Business Plan Tool, a free, online step-by-step tool that allows small business owners to create or update business plans, has counted more than 14,000 signups since mid-2015.

We are using technology we created in-house to meet our small business customers' need for faster and more convenient lending options. We created the *FastFlex*℠ Small Business Loan to provide small business customers an online loan that offers a fast decision. Because it is funded as soon as the next business day, it helps more small businesses access credit at a competitive rate.

Wells Fargo also is helping business customers build better credit profiles through our Credit Coaching Program. This program offers individualized support for small business owners who have been denied business credit products offered through Wells Fargo. The program helps business owners understand how credit decisions are made and what factors influenced the decision on their credit application. Since the program launched in March 2015, Wells Fargo credit specialists have conducted more than 17,000 credit coaching calls.

If our small business clients develop into Business Banking and Middle Market or Corporate Banking clients, we provide a seamless line of service. We offer customized banking services for many industry sectors — including health care, technology, media/telecom, and others — and we have unique partnerships with our Middle Market banking group to provide customized banking and services, such as specialized loan products and lines of credit. For these reasons, we are the No. 1 bank for midsized companies in the U.S.[3]

Our Treasury Management customers have begun to benefit from Application Programming Interface (API) channels that support a range of immediate payment services. For example, our commercial customers now can use Mastercard Send™ to send funds quickly and securely to consumers in the U.S. Our customers will have the ability to send digitally, and in real time, insurance claims, rebates, tax refunds, e-marketplace payouts, and social benefits to their customers.

2 2002-2015 CRA data, loans under $1 million.
3 Barlow Research Middle Market Rolling 8 Quarter Data 1Q2014-4Q2015, showing Wells Fargo's competitive market performance with companies $25MM-<$500MM in sales.

Thanks to our Wells Fargo Investment Institute, our financial advisors and wealth advisors provide their clients with insights and advice from more than 100 articles and reports the institute publishes each month on topics such as investment strategy, manager research, alternative investments, and portfolio management.

With 70 million customers, Wells Fargo is committed to serving the needs of our diverse customer base. For example, we provide financing options and dedicated service to help enlisted military personnel and veterans finance the purchase of their homes. For our Spanish-speaking customers, we offer banking tools in Spanish which include bilingual online tools, Spanish Text Banking, Spanish account statements, Spanish-language call centers, and Spanish-speaking bankers in branches throughout the country. In addition, El Futuro en Tus Manos® (Hands on Banking®), a Wells Fargo-developed free online program that teaches the basics of responsible money management, has had approximately 1.14 million visitors since its launch in 2003.

In short, our commitment to our customers is as strong as it has ever been.

OUR COMMUNITIES

A long-standing principle of our company is that we are only as strong as the communities where we do business. Reflecting this belief, in 2016 we continued to be one of the top corporate cash donors among U.S. companies, donating $281 million to more than 14,900 nonprofits. We also launched an integrated, companywide corporate social responsibility strategy to make positive, critical differences in our communities. We set ambitious five-year goals to advance diversity and social inclusion, create economic opportunities in underserved communities, and accelerate our country's transition to a lower-carbon economy and healthier planet. Here are some examples of our goals and accomplishments in these three areas:

Advancing diversity and social inclusion: We want everyone — our customers, team members, suppliers, and communities — to be respected and have access to opportunities to succeed.

As part of our commitment to diversity and inclusion, we've committed to donating $100 million by 2020 to critical social needs such as supporting the advancement of women and other diverse leaders and furthering social inclusion through education.

Since 2013, Wells Fargo has donated more than $25 million to nonprofits which help empower people with disabilities to succeed, including the National Disability Institute, National Federation of the Blind, and Disability Rights Education & Defense Fund. In 2016, we also committed $1 million to Scholarship America for a scholarship program to help people with disabilities obtain the education or training necessary to succeed in the career path of their choice.

We support local economies by developing and using diverse suppliers in the communities where we do business as well as across our global operations. We continue to make progress toward our goal of spending 15 percent of our total procurement budget with diverse suppliers by 2020, and we were honored to be named "Corporation of the Decade" by the U.S. Pan Asian American Chamber of Commerce Education Foundation for our positive impact on the growth of diverse businesses, including Asian American-owned businesses.

Creating economic opportunities: Our goal over the next five years is to deploy $500 million in grants toward programs focused on strengthening financial self-sufficiency and expanding access to opportunities in underserved communities.

Over the past six years, Wells Fargo has originated more home loans across all key categories — including loans to African Americans, Asians, Hispanics, Native Americans, low- and moderate-income borrowers, and residents of low- and moderate-income neighborhoods — than any other bank in America.[4] In 2016, we invested $50 million in our NeighborhoodLIFT program to help make homeownership more affordable, achievable, and sustainable. Thanks to LIFT programs, which offer homebuyer education and matching down payment assistance grants for low- and moderate-income households, we have invested $327 million since 2012 to empower more than 12,900 homeowners in 48 communities. Over that period, we also donated more than 300 homes, totaling more than $50 million in value, to military veterans in all 50 states.

Additionally, in 2017 we plan to work with the National Urban League, the National Association of Real Estate Brokers, and others to address lagging homeownership rates within the African American community by committing to a lending goal of $60 billion in new mortgages, for as many as 250,000 new homeowners, including a goal of $15 million to support a variety of initiatives that promote financial education and counseling, over the next 10 years. Our corporate goal is to originate $150 billion in mortgages for minorities and $70 billion in low- and moderate-income mortgage originations over the next five years.

4 Home Mortgage Disclosure Act data filed with the Federal Financial Institutions Examination Council.

Among the ways we seek to give diverse-owned small businesses more opportunity is through our Wells Fargo Works *for Small Business®* Diverse Community Capital program, which has distributed more than $38 million in grants and lending capital to 30 Community Development Financial Institutions (CDFIs) since November 2015. Working with CDFIs, we provide capital and technical assistance to help small businesses grow. Our goal is to distribute $75 million in grants by 2018.

Driving environmental sustainability: To address growing environmental concerns, in 2016 we financed more than $17.6 billion in renewable energy, clean technology, "green" building construction, sustainable agriculture, and other environmentally sustainable businesses. In addition, our goal is to donate $65 million to nonprofits, universities, and other organizations driving clean technology, community resiliency, and environmental education from 2016 through 2020.

I remember when Wells Fargo built its first energy-efficient green building back in 2008. Today it's standard practice for all of our new construction projects and renovations to use healthier and more resource-efficient models of construction, renovation, operation, and maintenance. We now have 521 branches and other locations — 21 percent of our total owned and leased square footage — that are Leadership in Energy and Environmental Design (LEED)-certified. Reinforcing our focus on operational efficiency, we plan to purchase renewable energy to power 100 percent of our operations by the end of 2017 and to transition to long-term agreements to fund new sources of green power by 2020.

Conservation has been a focus, too, as we have reduced company water use by more than 52 percent since 2008, saving more than 2.8 billion gallons of water and $28 million in utility costs.

OUR TEAM MEMBERS

Our team members are integral to our commitment to restore trust and pride in Wells Fargo. They provide great service to our customers and create value in our company.

We continue to show our team members how much we value them, with competitive compensation and benefits that include expanded parental and family member leave, backup adult care, tuition benefits, matching retirement contributions, profit-sharing, health insurance, and other benefits. We are proud that 99 percent of U.S. team members are eligible to receive Wells Fargo benefits totaling, on average, $12,000 per team member each year. Including our team members' dependents, our health care benefits cover more than 515,000 individuals. In 40 countries outside the U.S., we provide similar competitive benefit plans.

We use pay and benefits benchmarks, and we listen to our team members to find out what's important to them and how we can meet their needs. As part of our annual compensation review process, in January 2017, we increased the minimum hourly pay we offer our team members to 86 percent above the national minimum wage.

A core aspect of our company's culture is our focus on diversity and inclusion to ensure all people have equal opportunities to succeed at Wells Fargo. We are committed to expanding development opportunities for our team members through our diversity and inclusion strategy. This enables us to take advantage of the creativity and innovation that come from multiple perspectives and allows us to respond quickly and effectively to customer needs here at home and across the globe.

Our commitment to diversity is evident from our board of directors to the entire Wells Fargo team, which is 56 percent women and 42 percent people of color. But there is more work to do. One way we support increased diversity and inclusion is through our robust network of 10 Team Member Networks (TMNs) and our diversity and inclusion councils at the business, regional, and local levels of our organization. We also offer segment-specific leadership programs — and other recruiting, training, and development initiatives — that support our diversity and inclusion goals. We track our progress using a "diversity scorecard" that is shared with senior leaders quarterly.

Our goals include increasing the number of military veteran team members from 8,500 to 20,000 by 2020. In support of that goal, we have participated in more than 850 military job fairs and launched our Veteran Employment Transition Program, focused on identifying and hiring veterans who are moving into the private workforce for internships within Wells Fargo Securities. We plan to expand the Veteran Employment Transition Program to other lines of business in 2017.

External organizations have recognized our commitment to our team members. Wells Fargo ranked No. 13 on *LATINA Style* Inc.'s Top 50 Best Companies for Latinas, and we were listed in *DiversityInc*'s Top 50 Companies for Diversity, ranking No. 12 on the list in 2016. Also, New York Stock Exchange Governance Services named us the winner of its 2016 Best Board Diversity award, for the diversity of our board and for how diversity is carried forth as a cultural imperative throughout our company.

Wells Fargo team members are an essential part of strengthening our communities, and their work multiplies the effects of our corporate social responsibility programs. Each year, our Community Support Campaign yields millions of dollars that go back into local nonprofits and educational institutions. In 2016, our team members contributed $98.8 million during the campaign. United Way Worldwide has ranked our workplace-giving campaign the largest in the U.S. each of the past eight years. Our team members donate their time as well as their money, volunteering more than 1.73 million hours in 2016.

Another example of team members making a difference is the Focus on College! program that began in 2014 and has helped low-income parents open 300 college savings accounts to date. At six schools in high-poverty neighborhoods in St. Louis, Wells Fargo Advisors team members have helped families open the accounts, as well as learn the fundamentals of saving. Wells Fargo Advisors provides each family a savings match (up to a total of $250) for each dollar they put into their account on the day the account is opened. So far, more than $85,630 has been put aside toward college as a result.

Every day I am proud of the commitment and dedication our 269,000 team members show to serving our customers and our communities.

OUR SHAREHOLDERS

We recognize the commitment that you, as investors in our company, have made to Wells Fargo, and I want to assure you that we remain very focused on managing the company to maximize long-term shareholder value. Our goal is to generate consistent financial performance over time and through cycles while maintaining best-in-class shareholder returns. We believe we can achieve this result with the foundational elements described in this letter: a diversified, customer-centric business model; conservative risk discipline; and a strong balance sheet.

As CEO, I see this commitment as not just words on a page but a reflection of how we strive to operate the company and make decisions day-to-day. If we consistently make choices and allocate capital in ways that support long-term success, we will continue to build a durable and successful Wells Fargo for years to come.

In 2016, we returned $12.5 billion to shareholders through common stock dividends and net share repurchases. Our quarterly common stock dividend rose 1 percent to $0.38 per share, and our net payout ratio[5] was 61 percent, within our annual target range. And, for the third straight year, we reduced our average number of diluted common shares outstanding, which were down 101.5 million shares from year-end 2015. Our 10-year total shareholder return of 7.33 percent[6] ranked No. 2 among peer financial institutions.

As we move forward, we will remain focused on continued transparency. For example, we have provided meaningful, monthly information to help investors understand customer activity as we work through our sales practices issues. You have provided suggestions along the way, and we have added and refined content to be as responsive as possible. This is an important element of our ongoing conversation and reflects the trust you have placed in our company.

IN CONCLUSION

Our team members are working together as never before to put customers at the center of everything we do. Together, we are listening, learning, and taking the actions necessary to move our company forward. The task ahead is not easy, but we are working hard, and I know we will be successful.

The experience and knowledge of our board of directors have been instrumental in guiding us through the challenges we faced in 2016, and I appreciate their dedication to Wells Fargo. I want to recognize and thank Stephen Sanger, Chairman, and Betsy Duke, Vice Chair, for their outstanding leadership throughout the year. And I want to thank Elaine Chao, who resigned from the board in January 2017 after her confirmation as U.S. secretary of transportation, for her contributions and service since 2011 and wish her success in her new role.

I also want to thank you for your faith in Wells Fargo during 2016 and as we move ahead. We are committed to meaningful changes for our customers and our future. I am very confident in the direction we are going as we make our company better and stronger for everyone.

Timothy J. Sloan
Chief Executive Officer and President
Wells Fargo & Company
February 1, 2017

5 *Net payout ratio 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.*
6 *Bloomberg, includes share price appreciation and reinvested dividends.*

Our team members are working together as never before to put customers at the center of everything we do. Together, we are listening, learning, and taking the actions necessary to move our company forward.

— Timothy J. Sloan

Homeownership: More than a dream

This page: Monica Caulker (top) with son Joel; Brima Caulker (middle) at the family's new home in Grand Rapids, Minnesota; Monica Caulker with daughter Joy (bottom).

Opposite: Brima Caulker with Home Mortgage Consultant Tim Bymark.

For the Caulker family, moving from renter to homeowner (and from Sierra Leone to Minnesota) was less of a challenge because of a Wells Fargo mortgage program that emphasizes simplicity, clarity, and affordability.

Brima and Monica Caulker's children broke into song when they first saw their new home.

"It was clear how utterly happy they were," said B.J. Hansen, their real estate agent in Grand Rapids, Minnesota. "What really hit me is how much they embraced and appreciated the privilege of owning a home. It was so heartfelt — something I'll never forget."

The Caulkers bought their home less than two years after moving from Sierra Leone to the U.S. in search of a better life. Brima Caulker is an electrician in the iron mining industry; Monica Caulker, a patient advocate at an assisted-living facility.

With only modest savings, the couple never expected to be able to buy a home, especially in the U.S. Their outlook changed, however, after they met Hansen and Tim Bymark, a Wells Fargo home mortgage consultant. Bymark reviewed their financial information and determined that the Caulkers qualified for a low down payment home loan from Wells Fargo through the *your*First Mortgage℠ program.

"They were a great fit," he said. "A lot of people think you need 10 to 20 percent down to purchase, but this program — and the Caulkers — proved that you don't. They had good credit, steady jobs, and enough money in their savings to make it happen."

More than 18,000 customers have been approved for loans totaling more than $3.9 billion since *your*First Mortgage was introduced in May 2016, said Brad Blackwell of Wells Fargo Home Lending. A critical element that has fueled the program's success is offering customers an interest-rate discount for taking a homebuyer education course, he said.

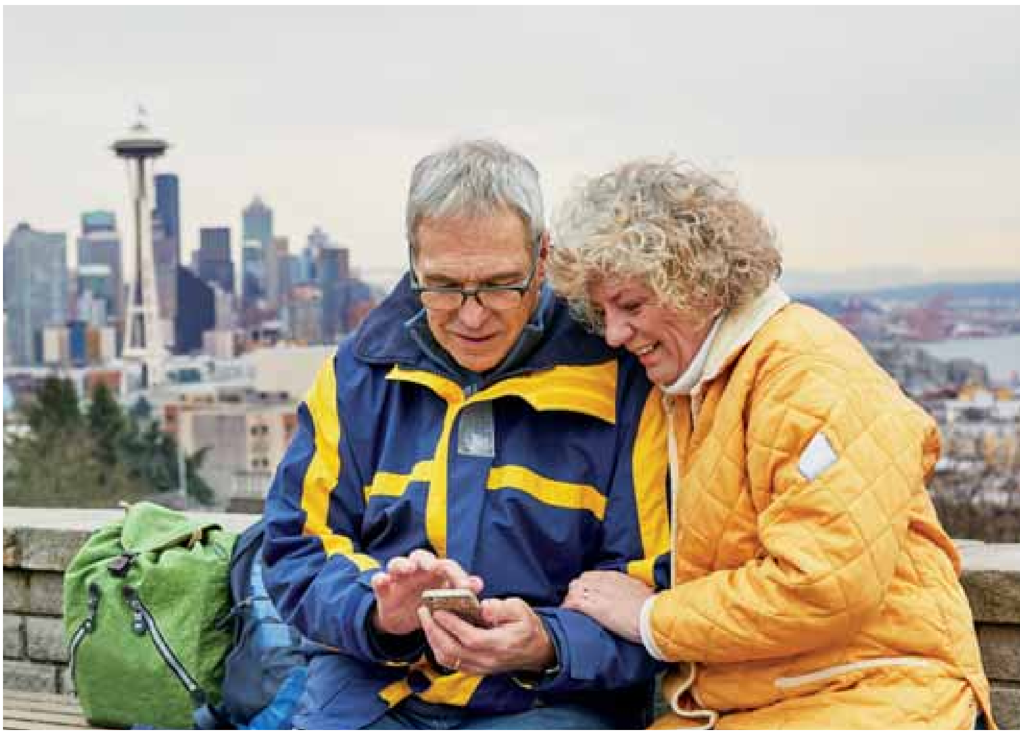
"Our commitment was to create something that meets the customer's need for simplicity, clarity, and affordability in a mortgage," Blackwell said. "Ultimately, we want the dream of homeownership to be more than just a dream, especially for the millions of hardworking families who have never been able to own a home."

Brima Caulker said, "Wells Fargo gave us hope. And Tim always took the extra time to talk to us, any time of the day. He helped us through the process. I know he's very busy, but he always acted like we were his only customers."

When closing day came, Brima Caulker wore his best suit, and Monica Caulker wore a colorful Sierra Leonean dashiki dress with a decorative headdress woven with strands of yarn.

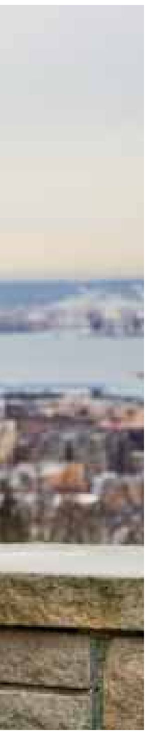
"This is how we celebrate the greatest moments of our lives," Monica Caulker said. "We don't know how to ever thank you enough."

Journey through retirement



This page: Michael and Debbie Campbell in Seattle (for the moment).

It's one thing to long for adventure, and another to do the hard work to make it a reality. With help from Wells Fargo, Michael and Debbie Campbell are living their retirement dream of traveling the world — while sticking to a budget.



When Michael and Debbie Campbell retired in 2013, they figured their life story had one more great adventure in it. So they rented out their Seattle townhouse, sold their boat and car, stored most of their possessions, and set off to explore the world.

"We have discovered that we can get along with just what we have," said Debbie Campbell, 60. "We don't buy anything that's not essential; if you can't eat it, drink it, get somewhere on it, or attend it, we tend not to buy it! When people ask us what we're doing in retirement, I tell them we're not on vacation. We're just living our daily lives in other people's homes."

Through the website and mobile app of Airbnb, the Campbells have stayed in 126 private homes and visited 170 cities in 56 countries.

How is it financially possible? Planning. The Campbells are Wells Fargo customers, and they went through the Envision® investment planning process with their financial advisor, Tama Borriello of The Meydenbauer Wealth Management Group of Wells Fargo Advisors. It helped them better understand how to set up a withdrawal schedule in an effort to realize their goal of seeing the world without busting their retirement budget.

"If you take the time to plan out what an appropriate withdrawal schedule is for you based on your financial and life circumstances, it helps take away the fear of the unknown," Borriello said. "It frees people to ask, 'What do we want to do with our time?' Then they are better equipped to build the plan to help make it happen."

The *Envision* process is an interactive tool that adjusts to market moves and changing conditions so customers can see the potential impact now or for 20 years or longer. The Campbells use web conferencing to regularly check in with Borriello and to help keep track of their investment portfolio as they travel from country to country. In their first year of travel, Michael Campbell, 71, said they realized they were overspending, so they made some adjustments in year two. Now in year three, they are on budget, leveraging the strength of the U.S. dollar, and avoiding countries with high inflation and living costs.

The Campbells said they became true nomads when they sold their townhouse in 2015.

"We want to keep doing it as long as we are learning every day, having fun, staying close to our budget, and still in love," Debbie Campbell said. "We're growing in the same direction, and it has been a real relationship-building journey together."

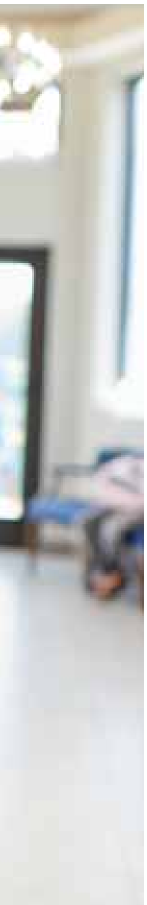
Wells Fargo Advisors is a trade name used by Wells Fargo Clearing Services, LLC, Member SIPC, a registered broker dealer and non-bank affiliate of Wells Fargo & Company. Wells Fargo Bank, N.A. is a bank affiliate of Wells Fargo & Company.

A prescription for caring

This page: Dr. Cassia Portugal with young patients and their family members.

Opposite: Portugal's "castle" office in Oviedo, Florida.

While Cassia Portugal focuses on getting kids and families health care services in a comfortable environment, Wells Fargo is financing the facilities she needs to continue growing her pediatric practice.



An interesting thing happens when you're a pediatrician serving the same community for nearly 20 years: Some of your first patients return years later as the parents of your newest patients.

Dr. Cassia Portugal sees this and more as the owner of First Choice Pediatrics in Orlando, Florida. She opened the practice in 1998 and now operates a chain of six (soon to be seven) pediatric locations in Central Florida.

"We serve thousands of children from every walk of life and culture, including families from Haiti, South Korea, Vietnam, and India," said Portugal. "Our staff members speak more than 15 languages, and we champion an inclusive culture that rejects discrimination."

Portugal knows the importance of a strong community. In the mid-'90s, she left behind her medical career and home in Brazil for a new start in the U.S.

"We moved to the U.S. and became citizens because we believed in America," she said. "But I also had to start all over, become a student again, and complete my medical residency."

After finishing her medical degree requirements for a second time, Portugal and her family put down roots in Orlando and opened First Choice Pediatrics.

By 2014, Portugal decided to invest in a space she could make all her own. Her dream: an office built to look like a castle, where her young patients would want to visit even when they didn't feel good.

"I wanted to create a pediatrics office that would make kids feel comfortable enough to actually ask their parents to go to the doctor's office," said Portugal. "For my business, for my employees, and most importantly for my patients, happiness is non-negotiable."

With this vision as her blueprint, Portugal looked to Wells Fargo for guidance on planning and financing the construction of her "castle."

Marshall Harris, a Wells Fargo business development officer in Orlando, worked with Portugal to secure financing via a Small Business Administration loan, and Portugal's dream became reality.

As Portugal works with Wells Fargo on financing a seventh location — this one designed to resemble an all-American mountain lodge — she is developing an adjacent community center to provide not only medical care, but also education about parenting, healthy living, and nutrition.

Portugal said, "I'm constantly asking myself, 'What can we do to improve people's lives?' I've been so blessed in that I can envision something and put it into practice, and that Wells Fargo was willing to help us bring my vision to life."

Bringing bankers to the kitchen table

This page: Dr. Lawrence Hiner at work in Sacramento, California, and meeting (above) via video on his laptop with Wells Fargo's Ruby Crumpler in Charlotte, North Carolina.

Opposite: Hiner with employee Aaron Brown.

Lawrence Hiner uses technology to help him connect with patients — and now to make his financial life easier, too. Case in point: meeting via video with Wells Fargo to refinance his home equity line of credit.

Dr. Lawrence Hiner has seen children's faces light up when they learn how to communicate by using a computer. For decades, he helped people with disabilities discover a whole new world with a keyboard and monitor.

The psychologist credits his penchant for technology with leading him to a discovery of his own in the area of personal finance: online video banking with Wells Fargo.

"As a customer, it appealed to me for convenience; as a psychologist, it appealed to me for efficiency and the quality of a face-to-face meeting," said Hiner, who has been a Wells Fargo customer for 27 years.

It wasn't long before Hiner, from his home in Sacramento, California, was on a coast-to-coast video call with Ruby Crumpler, a Wells Fargo team member in Charlotte, North Carolina. Together, they worked out the details of refinancing his home equity line of credit.

"You can cover a lot of ground in a relatively short period of time," said Hiner, a co-owner of a corporate training and consulting firm. "There is less need for going back and forth through email, snail mail, or phone calls to follow up on paperwork. Video banking is certainly much more efficient and cost effective for everyone involved."

Team members enjoy the interactions, too. "In developing a rapport," Crumpler said, "I can't say enough about the benefit of actually seeing the customer."

That is a key benefit video banking offers because new technology has made it less necessary for customers to come to a branch and interact on a personal level, said Mark Schwanhausser of Javelin Strategy & Research, a financial technology research and advisory firm.

"Wells Fargo clearly recognizes that for consumers who are increasingly comfortable with online banking, video is seen as a natural extension of their online experience," he said. "It is essential for banks to be in step with their customers' demand for a technology like video banking, which is both useful and user-friendly."

A case in point is Wells Fargo's video banking pilot for its home equity business. Customer feedback was so positive the company took its Video Call service directly from pilot status to a regular feature. Other businesses at Wells Fargo are looking to offer a similar service in 2017.

Hiner said working and interacting with Crumpler made the process especially meaningful.

"I know that part of it was her training, but the main part was who she is — her manner and personality. She's just very competent, genuine, easy to talk to, and quick to listen," he said. "That personal touch makes video banking much more of an appealing experience."

A home for hope

This page: Roderick Towns (top, above, bottom) at the Los Angeles LGBT Center; Michael Holtzman (middle), CFO of the Center, with Wells Fargo's Yolla Kairouz.

Opposite: Holtzman with Wells Fargo's Camilla Walker (left) and Kairouz.

A resident of the Los Angeles LGBT Center says, "I finally feel like I'm at home." That sentiment explains Wells Fargo's longstanding support of the Center, which includes financing a new campus with more than 100 affordable housing units.

Roderick Towns got on a plane from Georgia to Los Angeles with $15 and a dream to become an entertainer. Instead, he found himself living on the streets.

"When I got to L.A., everything just went downhill," said Towns, 18. "At the shelters I went to, when they found out how young I was, they told me I couldn't stay there. I had to sleep in a train station. I was so scared and panicking."

Then he found the Los Angeles LGBT Center — a safe place offering housing, food, career training, health services, and other support.

"I finally feel like I'm at home," Towns said.

The Center was founded in 1969 and is the world's largest provider of programs and services for lesbian, gay, bisexual, and transgender individuals. Now it is poised to undergo its biggest expansion to date, doubling the emergency housing beds that got Towns and others off the street.

Expected to open in 2019 — and with financing of nearly half of the $73.5 million cost arranged by Wells Fargo Middle Market Banking through a $34.6 million package of loans and federal tax credits — the new Anita May Rosenstein Campus will add social services, a community plaza, youth and senior centers, and more than 100 affordable housing units.

"We want to continue to reach out and open sites to make our services even more accessible and available," said Los Angeles LGBT Center Chief Financial Officer Michael Holtzman. "It's important as we expand that we have a strong financial relationship with Wells Fargo."

As a relationship manager for Middle Market Banking, Camilla Walker is the face of a team that is supporting the Center's construction project and helping meet capital needs. As a wealth advisor for Wells Fargo Private Bank, Yolla Kairouz leads the team that helps manage a nearly $20 million investment portfolio for the Center. Together, Walker and Kairouz are building on a relationship with the Center that dates back more than 20 years — including the Center's participation on the Wells Fargo Community Advisory Board addressing needs in Los Angeles.

"Our commitment is to work across channels and a host of groups to understand what is really important to the Center and to bring that vision to life with advice and services," Kairouz said.

Walker added, "For nearly 50 years, the Center has been instrumental in the health, housing, education, and advocacy of countless individuals. I'm confident that even more lives will be positively impacted because of the new campus and our work together."

Towns concluded, "You can't be successful in your life unless you have some sort of family around you, and the Center is that for me. Since coming here, I've learned it's not about where you come from, it's about where you're going. Now I wake up happy."

Building with smart technology

This page: Andy Huh (left) in front of a multi-family unit by Synapse Development Group and Perch Living in Harlem, New York; (above) at work in the Urban Future Lab of New York University.

Opposite page: Huh inspecting an installation at a single-family home in Brooklyn, New York.

A fast, easy way for builders to comparison shop for energy-efficient windows — that's what Andy Huh's company creates. His work is made easier with a Wells Fargo grant that supports startups tackling sustainability challenges.

When Andy Huh was a real estate developer and interested in eco-friendly building, he had a hard time finding windows and doors that met the standards of a passive house, which has rigorous energy-efficiency requirements to maintain comfortable interior climates without the use of active heating and cooling systems.

"There are about 90 attributes to consider with windows and doors, and the stakes are higher because the costs are higher," Huh said. "I couldn't find anything in the market, so I spent $400,000 for windows and doors for the project and had no idea if I was getting a good deal."

Today, Huh is working to help others in similar situations. Huh is the co-founder and CEO of Fentrend, a startup based in Brooklyn, New York, that developed an online tool to aggregate data from hundreds of companies to help architects, developers, and general contractors comparison shop for eco-friendly windows and doors. Part of the startup's mission is to reduce greenhouse gas emissions.

The company is a member of ACRE, a clean-tech incubator program housed at the Urban Future Lab at New York University's Tandon School of Engineering.

Wells Fargo awarded ACRE a $100,000 grant to support startup companies like Fentrend that use technology and creative business models to address sustainability challenges.

ACRE provides each startup with office space for about two years, along with support staff, professional business and support services, networking, mentors, and opportunities to collaborate with other startups and meet investors.

"Our challenge is that no one's ever built what we're trying to build, but other companies in the ACRE program are doing similar things," Huh said. "Being a member has been helpful in connecting us with partners and organizations to vet our ideas."

Support from Wells Fargo's Clean Technology Innovation grant program allows ACRE to expand and help companies like Fentrend even more.

"We are committed to supporting organizations that are redefining what's possible in the clean-tech sector," said Ashley Grosh of Wells Fargo's Environmental Affairs. "Technology innovation will be a critical step in building more sustainable and resilient communities."

Helping create affordable housing

This page: Apartment resident Camille Lewis (top) at Park Hill Station in Denver; walking (above) to the rail line; son Mateo Lewis (right).

Opposite: Rudy, the Lewis' family dog.

Pets are welcome at a new, affordable apartment building in Denver. The development is part of the city's plan to increase access to its commuter rail line — and part of Wells Fargo's commitment to invest in communities that need a boost.

It's simple economics: When a city is prospering, property values rise. But for local residents with financial challenges, rising property values can really complicate things.

"Creating sustainable communities is extremely important — allowing people to spend less on housing and more on other necessary living costs while still having access to employment and education," said Scott Horton of Wells Fargo's Community Lending and Investment group, which invests debt and equity capital for economic development, job creation, and affordable housing in areas of need nationwide.

"By investing time and resources into a project like the new Park Hill Station apartment building in Denver," Horton said, "Wells Fargo is able to help transform the lives of many people in our communities."

Camille Lewis, a single mom with two sons, knows firsthand how rising rental costs can strain a budget. She's a lifelong resident of Denver, where rising rental rates have the average one-bedroom apartment leasing for about $1,250 per month.

"When you have to worry about your rent increasing every year . . . you live with the stress of an ever-increasing housing market that really isn't affordable," said Lewis, who works multiple jobs to support her family.

The issue is such a concern that Mayor Michael B. Hancock has laid out a $150 million funding plan to create 6,000 affordable housing units over the next 10 years, noting "there is not a more important priority in the city of Denver."

Thanks in part to a Wells Fargo commitment, the city is moving in the right direction, following the grand opening of Park Hill Station, a 156-unit apartment building along the city's new airport commuter rail.

"What affordable housing means in terms of access to transit is that we can connect people to jobs in a very affordable, efficient manner," said Hancock.

Lewis and her boys are among the building's new residents. "Living here has had major impacts on my life, primarily financially," she said. "I'm right on the train line, so I can get to and from work — and it's amazing!"

The new apartments at Park Hill Station represent the third affordable housing project along a transit line in Denver for Wells Fargo's Community Lending and Investment group.

"By building affordable housing, it positively affects the community," Lewis said. "We have a place to live that is safe, it's environmentally friendly, and it's accessible."

A future of efficient freight

This page: A grain processing facility (top) for Grain Craft in Birmingham, Alabama. Employees inspect a railcar (far right) loading grain in Wichita, Kansas.

Long known for its stagecoach, Wells Fargo also operates Wells Fargo Rail. The business helps companies ship products quickly and in an environmentally friendly way.

Grain Craft of Mission Woods, Kansas, needs a fast, efficient way to get its milled flour to commercial bakeries all over the U.S., and it chooses the railways to get the job done.

"Rail is a much more advantageous method of shipping," said Ken Bisping, director of transportation and logistics for Grain Craft, "because four truckloads of grain fit in just one railcar. Without Wells Fargo Rail, we couldn't compete in the marketplace."

That very real need to ship freight from point A to point B is, in a nutshell, the business rationale behind Wells Fargo Rail — the largest owner and lessor of railcars and locomotives in North America. Founded as First Union Rail in 1994, and buoyed by Wells Fargo's acquisition of GE Railcar Services in 2016, Wells Fargo Rail leases its railcars and locomotives to Class 1, regional, and short line railroads, as well as to a variety of raw material and finished goods shippers across the U.S., Canada, and Mexico.

Wells Fargo "has been associated with the railroad industry since the company's founding in the 1850s, when Wells Fargo offered both express delivery and financial services to customers," said Barbara Wilson, head of Wells Fargo Rail. In fact, company founders Henry Wells and William G. Fargo both began their careers as expressmen — a job that encompassed packing, managing, and ensuring the delivery of cargo.

For Wells Fargo Rail's 750-plus customers — such as Grain Craft, one of the largest U.S. flour milling companies — using railroad transportation offers an energy-efficient and environmentally friendly way to ship freight.

"When you can move one ton of freight over 470 miles on a single gallon of fuel, you're able to offer customers a cost-effective transportation option that also reduces their business's impact on the environment," Wilson said. "The railroad industry is actually a very environmentally friendly industry. In today's world, that means a lot to our customers and government regulators. It's one of the many reasons I think rail has a really robust future."

A bank for life

This page: Marsha Morrison (top, above) at home in Greenwich, Connecticut; meeting (left) with Wells Fargo's Matthew Cummings and Angela Colón.

Long-term relationships are important to Marsha Morrison, especially in her financial life. Now enjoying a secure retirement, for 35 years she has counted on Wells Fargo for service with the personal touch.

With gray skies threatening bad weather, Marsha Morrison bundles up and climbs into her sedan to fulfill a personal mission in Greenwich, Connecticut. Today, it's taking one of her elderly neighbors, who doesn't drive, to the doctor.

At 83 herself, Morrison is glad she's there for her friends and — thanks in part to her long relationship with Wells Fargo — able to visit art museums and enjoy other pastimes without financial worries.

Morrison's banking relationship with Wells Fargo began 35 years ago through predecessor institutions. But its value really hit home in 1989, when a divorce left her with three children and management of the family checkbook for the first time in her life. She quickly found work as a secretary and added other odd jobs to boost her income.

"Wells Fargo said, 'Go find a new home, you will be OK. We will be there for you.' And they were," Morrison said. "I've been a happy customer ever since. All three of my children are Wells Fargo customers, too."

While her stepfather offered her some financial tips years ago, Morrison said she's also glad she talked with a banker. Thirty years later, the first series of savings bonds she purchased is maturing — money that will help with her daily expenses. She retired in 2009.

Matthew Cummings, who manages Wells Fargo's Greenwich Commons branch, recently notarized some paperwork Morrison needed to provide to the Connecticut Division of Motor Vehicles.

"Trust is built one interaction at a time," Cummings said, "and we are thrilled to have had the trust of Mrs. Morrison for so long. Our team believes in service, getting to know our customers, and doing the right thing every day."

Morrison said she still remembers the company from a period in her childhood when her dad moved the family to California. She saw the Wells Fargo stagecoach in a parade, "and they were passing out candy to all the kids," she said. "Wells Fargo has been a wonderful bank to me — friendly, kind, and one that cares about its customers. They cared about me when I was in need, and they care about me now."

Learn more about Marsha Morrison and all those featured in this year's Annual Report at wellsfargo.com/stories.

Operating Committee and Other Corporate Officers

Wells Fargo Operating Committee (left to right):
David M. Julian, Avid Modjtabai, Michael J. Loughlin, David M. Carroll, Perry G. Pelos, Timothy J. Sloan, Franklin R. Codel, James M. Strother, Hope A. Hardison, John R. Shrewsberry, and Mary T. Mack

Timothy J. Sloan
Chief Executive Officer and President *

Anthony R. Augliera
Corporate Secretary

Neal A. Blinde
Treasurer

Jon R. Campbell
Head of Government and Community Relations

David M. Carroll
Head of Wealth and Investment Management *

Franklin R. Codel
Head of Consumer Lending *

Hope A. Hardison
Chief Administrative Officer *

David M. Julian
Chief Auditor

Richard D. Levy
Controller *

Michael J. Loughlin
Chief Risk Officer *

Mary T. Mack
Head of Community Banking *

Avid Modjtabai
Head of Payments, Virtual Solutions and Innovation *

Perry G. Pelos
Head of Wholesale Banking *

James H. Rowe
Head of Investor Relations

John R. Shrewsberry
Chief Financial Officer *

James M. Strother
General Counsel *

Oscar Suris
Head of Corporate Communications

* *"Executive officers" according to Securities and Exchange Commission rules.*

Board of Directors*

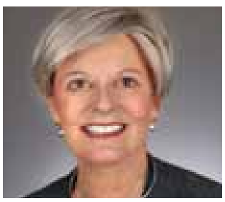
John D. Baker II *1, 2, 3*
Executive Chairman
FRP Holdings, Inc.
(Real estate management)

John S. Chen *6*
Executive Chairman, CEO
BlackBerry Limited
(Wireless communications)

Lloyd H. Dean *2, 5, 6, 7*
President, CEO
Dignity Health
(Health care)

Elizabeth A. Duke *3, 4, 7*
Vice Chair
Wells Fargo & Company

Former member,
Federal Reserve Board of Governors
(U.S. regulatory agency)



Susan E. Engel *3, 4, 6*
Retired CEO
Portero, Inc.
(Online luxury retailer)

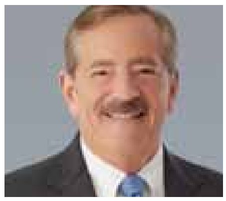
Enrique Hernandez, Jr. *2, 4, 7*
Chairman, CEO
Inter-Con Security Systems, Inc.
(Security services)

Donald M. James *4, 6*
Retired Chairman, CEO
Vulcan Materials Company
(Construction materials)

Cynthia H. Milligan *2, 3, 5, 7*
Dean Emeritus
College of Business Administration,
University of Nebraska-Lincoln
(Higher education)

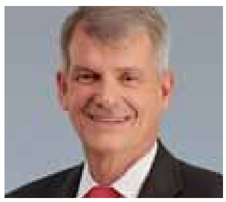
Federico F. Peña *1, 2, 5, 7*
Senior Advisor
Colorado Impact Fund
(Private equity)

James H. Quigley *1, 3, 7*
CEO Emeritus
Deloitte
(Audit, tax, financial advisory)



Stephen W. Sanger *5, 6, 7*
Chairman
Wells Fargo & Company

Retired Chairman, CEO
General Mills, Inc.
(Packaged foods)



Timothy J. Sloan
CEO, President
Wells Fargo & Company

Susan G. Swenson *1, 5*
Chair, CEO
Inseego Corp.
(Software-as-a-service and Internet of Things)

Suzanne M. Vautrinot *1, 3*
President
Kilovolt Consulting, Inc.
(Cyber and technology consulting)

Standing Committees
1. Audit and Examination 2. Corporate Responsibility 3. Credit 4. Finance 5. Governance and Nominating 6. Human Resources 7. Risk

**As of February 1, 2017. On February 20, 2017, Karen B. Peetz, retired President of The Bank of New York Mellon Corporation, and Ronald L. Sargent, retired Chairman and CEO of Staples, Inc., were elected to the Board of Directors.*

2016 Corporate Social Responsibility Performance

Our commitment to our shareholders is to deliver value, which we do by putting our customers first, investing in our team members, and creating solutions for stronger communities. Read about our priorities, goals, and progress at wellsfargo.com/about/corporate-responsibility.

SERVING CUSTOMERS

HELPED MORE THAN

4.1 million customers

MANAGE THEIR CREDIT SCORES AND OVERALL FINANCIAL HEALTH WITH FREE CREDIT SCORE PROGRAM

CREATED MORE THAN

12,900 homeowners

IN 48 COMMUNITIES THROUGH $327 MILLION IN WELLS FARGO'S LIFT PROGRAMS SINCE 2012

ENGAGING OUR TEAM MEMBERS

HIRED

1,900 military veterans

FOR A TOTAL OF MORE THAN 8,500 VETERAN TEAM MEMBERS

SUPPORTED MORE THAN

79,800 team members

THROUGH VOLUNTEER CHAPTERS, GREEN TEAMS, AND TEAM MEMBER NETWORKS (RESOURCE GROUPS)

CONNECTING WITH OUR COMMUNITIES

CONTRIBUTED

$281.3 million

TO MORE THAN *14,900 nonprofits*

ENGAGED AND DEVELOPED

diverse businesses

WITH MORE THAN 11% OF TOTAL PROCUREMENT BUDGET SPENT WITH DIVERSE SUPPLIERS

INVESTING IN ENVIRONMENTAL SOLUTIONS

FINANCED MORE THAN

$17.6 billion

IN RENEWABLE ENERGY, CLEAN TECHNOLOGY, AND OTHER ENVIRONMENTALLY SUSTAINABLE BUSINESSES

INCREASED OPERATIONAL EFFICIENCY WITH

36% reduction

IN ABSOLUTE GREENHOUSE GAS EMISSIONS SINCE 2008

Data for January 1, 2016 – December 31, 2016, unless otherwise noted.

Wells Fargo & Company 2016 Financial Report

This Annual 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" and "Risk Factors" sections, and in the "Regulation and Supervision" section of our Annual Report on Form 10-K for the year ended December 31, 2016 (2016 Form 10-K).

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

Financial Review

Overview

Wells Fargo & Company is a diversified, community-based financial services company with $1.9 trillion in assets. Founded in 1852 and headquartered in San Francisco, we provide banking, insurance, investments, mortgage, and consumer and commercial finance through more than 8,600 locations, 13,000 ATMs, digital (online, mobile and social), and contact centers (phone, email and correspondence), and we have offices in 42 countries and territories to support customers who conduct business in the global economy. With approximately 269,000 active, full-time equivalent team members, we serve one in three households in the United States and ranked No. 27 on *Fortune's* 2016 rankings of America's largest corporations. We ranked third in assets and second in the market value of our common stock among all U.S. banks at December 31, 2016.

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

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

Sales Practices Matters

On September 8, 2016, we announced settlements with the Consumer Financial Protection Bureau (CFPB), the Office of the Comptroller of the Currency (OCC) and the Office of the Los Angeles City Attorney regarding allegations that some of our retail customers received products and services they did not request. Our current top priority is rebuilding trust through a comprehensive action plan that includes making things right for our customers and team members and building a better Company for the future. The job of rebuilding trust in Wells Fargo will be a long-term effort – one requiring our commitment, patience and perseverance. Our commitment to addressing the concerns raised by these settlements and our priority of rebuilding trust has included the following:

- Reached out to 40 million retail and 3 million small business customers through statement messaging, other mailings and online communications, including over 168,000 potentially unauthorized credit card customers called as of December 31, 2016.
- Established a Sales Practices Consent Order Program Office in October 2016, reporting directly to our Chief Risk Officer, which coordinates actions being taken across the Company to meet the requirements of the consent orders that were issued as part of the settlements in September.
- Submitted our reimbursement and redress plans in response to the consent orders to the OCC and CFPB in December 2016.
- Refunded a total of $3.2 million to customers for potentially unauthorized accounts that incurred fees and charges, including the addition of consumer and small business unsecured line of credit accounts, for the period of May 2011 through June 2015.
- Expanded the time periods of our review to cover the entire consent order period of January 2011 through September 2016; also expanded data analysis for potentially unauthorized accounts to 2009 through 2010.
- As part of this expanded review as well as our ongoing data analysis, including our review and validation of the identification of potentially unauthorized accounts by a third party consulting firm, we continue to refine our practices and methodology used to identify, prevent and remediate sales practices related matters. This work could lead to, among other things, an increase in the identified number of potentially impacted customers; however, we would not expect any incremental customer remediation costs to have a significant financial impact.

- Hired an independent consultant to perform sales practices evaluation and root cause analysis as outlined in the consent orders.
- Performing additional work beyond the requirements of the consent orders, including:
  - Established a voluntary, no-cost to the consumer mediation program nation-wide (beyond the requirements in the Los Angeles Stipulated Judgment to do so for California).
  - Hired an additional third party consultant to evaluate sales practices more broadly across Wells Fargo.
- Continuing analysis of potential credit score and related impacts to customers to develop a plan for regulatory approval.
- Implemented a new retail banking compensation program in 2017 that includes:
  - No product sales goals, which were eliminated in October 2016.
  - Performance based on customer service, branch primary customer growth, household relationship balance growth, and risk management, with a larger allocation of incentives associated with direct customer feedback and product usage.
  - Metrics heavily weighted towards team goals, not just individual goals.
  - Additional centralized monitoring and controls in place to provide enhanced oversight of sales processes.
  - Periodic reviews and checkpoints to monitor unintended outcomes or behavior prompted by the new compensation program.
- Investments in enhanced team member training and monitoring and controls have been made, including reinforcement of our Code of Ethics and Business Conduct and our EthicsLine.
- Established an Office of Ethics, Oversight and Integrity in January 2017, reporting directly to our Chief Risk Officer, aligning many of the groups responsible for conduct-related risks into one function to provide more connectivity, consistency, and stronger governance.
- Established a Rebuilding Trust Office in January 2017, which will provide support to the many efforts currently underway to rebuild trust in Wells Fargo, including driving the formation of cross-business teams and problem-solving on behalf of all the businesses.
- Determination by the Board on February 28, 2017, that certain members of the Company's Operating Committee will not receive annual bonuses for 2016 and will forfeit up to 50% of their long-term performance share equity compensation awards scheduled to be distributed in March 2017.

As we move forward we have a specific action plan in place that is focused on outreach to those who have been affected by retail banking sales practices including our community, our customers, our regulators, our team members and our investors. For additional information regarding sales practices matters, including related legal matters, see the "Risk Factors" section and Note 15 (Legal Actions) to Financial Statements in this Report.

Financial Performance

In 2016, we generated $21.9 billion of net income and diluted earnings per common share (EPS) of $3.99. We grew loans and deposits, enhanced our risk management practices, increased our capital and liquidity levels and rewarded our shareholders by increasing our dividend and continuing to repurchase shares of our common stock. Our achievements during 2016 continued to demonstrate the benefit of our diversified business model and our ability to perform well in a challenging environment. Noteworthy financial performance items for 2016 included:

- revenue of $88.3 billion, up 3% from 2015;
- total loans of $967.6 billion, up $51.0 billion, or 6%;
- deposit growth, with total deposits of $1.3 trillion, up $82.8 billion, or 7%;
- strong credit performance as our net charge-off ratio was 37 basis points of average loans;
- strengthening our capital levels as total equity exceeded $200 billion for the first time; and
- returning $12.5 billion in capital to our shareholders through increased common stock dividends and additional net share repurchases.

Balance Sheet and Liquidity

Our balance sheet grew 8% in 2016 to $1.9 trillion, as we increased our liquidity position, held more capital and continued to experience solid credit quality. Our loan portfolio increased $51.0 billion from December 31, 2015, predominantly due to growth in commercial and industrial, real estate mortgage, credit card, automobile, and lease financing loans within the commercial loan portfolio segment, which included $27.9 billion of commercial and industrial loans and capital leases acquired from GE Capital in 2016. We have grown loans on a year-over-year basis for 22 consecutive quarters.

We further strengthened our liquidity position in 2016 in advance of the increase on January 1, 2017, to the minimum liquidity coverage ratio (LCR) regulatory requirement. We grew our investment securities portfolio by $60.4 billion in 2016. Our federal funds sold, securities purchased under resale agreements and other short-term investments (collectively referred to as federal funds sold and other short-term investments elsewhere in this Report) decreased by $4.1 billion, or 2%, during 2016.

Deposits at December 31, 2016, were up $82.8 billion, or 7%, from 2015. This increase reflected growth across our commercial and consumer businesses. Our average deposit cost increased 3 basis points from a year ago driven by commercial deposit pricing. We grew our primary consumer checking customers (i.e., customers who actively use their checking account with transactions such as debit card purchases, online bill payments, and direct deposit) by 3.0%.

Credit Quality

Credit quality remained stable in 2016, driven by continued strong performance in the commercial and consumer real estate portfolios. Performance in several of our commercial and consumer loan portfolios remained near historically low loss levels and reflected our long-term risk focus. Net charge-offs of $3.5 billion were 0.37% of average loans, compared with $2.9 billion and 0.33%, respectively, from a year ago. Net losses in our commercial portfolio were $1.1 billion, or 22 basis points of average loans, in 2016, compared with $387 million, or 9 basis points, in 2015, driven by higher losses in our oil and gas portfolio. Our commercial real estate portfolios were in a net recovery position for each quarter of the last four years, reflecting our conservative risk discipline and improved market conditions.

Net consumer losses declined to 53 basis points in 2016 from 55 basis points in 2015. Losses on our consumer real estate portfolios declined $330 million, or 52%, from a year ago. As of December 31, 2016, approximately 73% of our real estate 1-4 family first lien mortgage portfolio was originated after 2008, when new underwriting standards were implemented. The consumer loss levels reflected the benefit of the improving housing market and our continued focus on originating high quality loans, partially offset by increased losses in our credit card, auto, and other revolving and installment loan portfolios.

The allowance for credit losses of $12.5 billion at December 31, 2016, was up slightly compared with the prior year. Our provision for credit losses in 2016 was $3.8 billion compared with $2.4 billion a year ago reflecting a build of $250 million in the allowance for credit losses, compared with a release of $450 million in 2015. The build in 2016 was primarily due to deterioration in the oil and gas portfolio, while the release in 2015 was due to strong underlying credit performance and improvement in the housing market.

Nonperforming assets (NPAs) at the end of 2016 were down $1.4 billion, or 11%, from the end of 2015. Nonaccrual loans declined $998 million from the prior year end while foreclosed assets were down $447 million from 2015.

Capital

Our capital levels remained strong in 2016 with total equity increasing to $200.5 billion at December 31, 2016, up $6.6 billion from the prior year. We returned $12.5 billion to shareholders in 2016 ($12.6 billion in 2015) through common stock dividends and net share repurchases and our net payout ratio (which is the ratio of (i) common stock dividends and share repurchases less issuances and stock compensation-related items, divided by (ii) net income applicable to common stock) was 61%. During 2016 we increased our quarterly common stock dividend from $0.375 to $0.38 per share. In 2016, our common shares outstanding declined by 76.0 million shares as we continued to reduce our common share count through the repurchase of 159.6 million common shares during the year. We also entered into a $750 million forward repurchase contract with an unrelated third party in fourth quarter 2016 that settled in first quarter 2017 for 14.7 million shares. In addition, we entered into a $750 million forward repurchase contract with an unrelated third party in January 2017 that is expected to settle in second quarter 2017 for approximately 14 million shares. We expect our share count to continue to decline in 2017 as a result of anticipated net share repurchases.

We believe an important measure of our capital strength is the Common Equity Tier 1 ratio on a fully phased-in basis, which was 10.77% as of both December 31, 2016 and 2015. 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.

Table 1: Six-Year Summary of Selected Financial Data

(in millions, except per share amounts)	2016	2015	2014	2013	2012	2011	% Change 2016/ 2015	Five-year compound growth rate
Income statement								
Net interest income	$ 47,754	45,301	43,527	42,800	43,230	42,763	5 %	2
Noninterest income	40,513	40,756	40,820	40,980	42,856	38,185	(1)	1
Revenue	88,267	86,057	84,347	83,780	86,086	80,948	3	2
Provision for credit losses	3,770	2,442	1,395	2,309	7,217	7,899	54	(14)
Noninterest expense	52,377	49,974	49,037	48,842	50,398	49,393	5	1
Net income before noncontrolling interests	22,045	23,276	23,608	22,224	19,368	16,211	(5)	6
Less: Net income from noncontrolling interests	107	382	551	346	471	342	(72)	(21)
Wells Fargo net income	21,938	22,894	23,057	21,878	18,897	15,869	(4)	7
Earnings per common share	4.03	4.18	4.17	3.95	3.40	2.85	(4)	7
Diluted earnings per common share	3.99	4.12	4.10	3.89	3.36	2.82	(3)	7
Dividends declared per common share	1.515	1.475	1.350	1.150	0.880	0.480	3	26
Balance sheet (at year end)								
Investment securities	$ 407,947	347,555	312,925	264,353	235,199	222,613	17 %	13
Loans	967,604	916,559	862,551	822,286	798,351	769,631	6	5
Allowance for loan losses	11,419	11,545	12,319	14,502	17,060	19,372	(1)	(10)
Goodwill	26,693	25,529	25,705	25,637	25,637	25,115	5	1
Assets	1,930,115	1,787,632	1,687,155	1,523,502	1,421,746	1,313,867	8	8
Deposits	1,306,079	1,223,312	1,168,310	1,079,177	1,002,835	920,070	7	7
Long-term debt	255,077	199,536	183,943	152,998	127,379	125,354	28	15
Wells Fargo stockholders' equity	199,581	192,998	184,394	170,142	157,554	140,241	3	7
Noncontrolling interests	916	893	868	866	1,357	1,446	3	(9)
Total equity	200,497	193,891	185,262	171,008	158,911	141,687	3	7

Table 2: Ratios and Per Common Share Data

	Year ended December 31,		
	2016	2015	2014
Profitability ratios			
Wells Fargo net income to average assets (ROA)	**1.16%**	1.31	1.45
Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity (ROE)	**11.49**	12.60	13.41
Return on average tangible common equity (ROTCE) (1)	**13.85**	15.17	16.22
Efficiency ratio (2)	**59.3**	58.1	58.1
Capital ratios (3)(4)			
At year end:			
Wells Fargo common stockholders' equity to assets	**9.14**	9.62	9.86
Total equity to assets	**10.39**	10.85	10.98
Risk-based capital:			
Common Equity Tier 1	**11.13**	11.07	11.04
Tier 1 capital	**12.82**	12.63	12.45
Total capital	**16.04**	15.45	15.53
Tier 1 leverage	**8.95**	9.37	9.45
Average balances:			
Average Wells Fargo common stockholders' equity to average assets	**9.40**	9.78	10.22
Average total equity to average assets	**10.64**	10.99	11.32
Per common share data			
Dividend payout (5)	**38.0**	35.8	32.9
Book value (6)	**$ 35.18**	33.78	32.19
Market price (7)			
High	**58.02**	58.77	55.95
Low	**43.55**	47.75	44.17
Year end	**55.11**	54.36	54.82

(1) Tangible common equity is a non-GAAP financial measure and represents total equity less preferred equity, noncontrolling interests, and goodwill and certain identifiable intangible assets (including goodwill and intangible assets associated with certain of our nonmarketable equity investments 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, which utilizes tangible common equity, is a useful financial measure because it enables 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) The risk-based capital ratios presented at December 31, 2016 and 2015 were calculated under the lower of Standardized or Advanced Approach determined pursuant to Basel III with Transition Requirements. Accordingly, the total capital ratio was calculated under the Advanced Approach and the other ratios were calculated under the Standardized Approach. The risk-based capital ratios were calculated under the Basel III General Approach at December 31, 2014.
(4) See the "Capital Management" section and Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report for additional information.
(5) Dividend payout ratio is dividends declared per common share as a percentage of diluted earnings per common share.
(6) Book value per common share is common stockholders' equity divided by common shares outstanding.
(7) Based on daily prices reported on the New York Stock Exchange Composite Transaction Reporting System.

Earnings Performance

Wells Fargo net income for 2016 was $21.9 billion ($3.99 diluted earnings per common share), compared with $22.9 billion ($4.12 diluted per share) for 2015 and $23.1 billion ($4.10 diluted per share) for 2014. Our financial performance in 2016 benefited from a $2.5 billion increase in net interest income, which was offset by a $1.3 billion increase in our provision for credit losses and a $2.4 billion increase in noninterest expense. Noninterest income of $40.5 billion in 2016 was relatively stable compared with the prior year.

Revenue, the sum of net interest income and noninterest income, was $88.3 billion in 2016, compared with $86.1 billion in 2015 and $84.3 billion in 2014. The increase in revenue for 2016 compared with 2015 was predominantly due to an increase in net interest income, reflecting increases in interest income from loans and trading assets, partially offset by higher long-term debt and deposit interest expense. Our diversified sources of revenue generated by our businesses continued to be balanced between net interest income and noninterest income. In 2016, net interest income of $47.8 billion represented 54% of revenue, compared with $45.3 billion (53%) in 2015 and $43.5 billion (52%) in 2014. Table 3 presents the components of revenue and noninterest expense as a percentage of revenue for year-over-year results.

See later in this section for discussions of net interest income, noninterest income and noninterest expense.

Table 3: Net Interest Income, Noninterest Income and Noninterest Expense as a Percentage of Revenue

			Year ended December 31,			
(in millions)	2016	% of revenue	2015	% of revenue	2014	% of revenue
Interest income (on a taxable-equivalent basis)						
Trading assets	$ 2,553	3%	$ 2,010	2%	$ 1,712	2%
Investment securities	10,316	11	9,906	12	9,253	11
Mortgages held for sale (MHFS)	784	1	785	1	767	1
Loans held for sale (LHFS)	9	—	19	—	78	—
Loans	39,630	45	36,663	43	35,715	42
Other interest income	1,614	2	990	1	932	1
Total interest income (on a taxable-equivalent basis)	54,906	62	50,373	59	48,457	57
Interest expense (on a taxable-equivalent basis)						
Deposits	1,395	2	963	1	1,096	1
Short-term borrowings	333	—	64	—	62	—
Long-term debt	3,830	5	2,592	4	2,488	3
Other interest expense	354	—	357	—	382	—
Total interest expense (on a taxable-equivalent basis)	5,912	7	3,976	5	4,028	4
Net interest income (on a taxable-equivalent basis)	48,994	55	46,397	54	44,429	53
Taxable-equivalent adjustment	(1,240)	(1)	(1,096)	(1)	(902)	(1)
Net interest income (A)	47,754	54	45,301	53	43,527	52
Noninterest income						
Service charges on deposit accounts	5,372	6	5,168	6	5,050	6
Trust and investment fees (1)	14,243	16	14,468	16	14,280	17
Card fees	3,936	5	3,720	4	3,431	4
Other fees (1)	3,727	4	4,324	5	4,349	5
Mortgage banking (1)	6,096	7	6,501	7	6,381	8
Insurance	1,268	2	1,694	2	1,655	2
Net gains from trading activities	834	1	614	1	1,161	1
Net gains on debt securities	942	1	952	1	593	1
Net gains from equity investments	879	1	2,230	3	2,380	3
Lease income	1,927	2	621	1	526	1
Other	1,289	1	464	1	1,014	1
Total noninterest income (B)	40,513	46	40,756	47	40,820	48
Noninterest expense						
Salaries	16,552	19	15,883	19	15,375	18
Commission and incentive compensation	10,247	12	10,352	12	9,970	12
Employee benefits	5,094	6	4,446	5	4,597	5
Equipment	2,154	2	2,063	2	1,973	2
Net occupancy	2,855	3	2,886	3	2,925	3
Core deposit and other intangibles	1,192	1	1,246	1	1,370	2
FDIC and other deposit assessments	1,168	1	973	1	928	1
Other (2)	13,115	15	12,125	15	11,899	14
Total noninterest expense	52,377	59	49,974	58	49,037	58
Revenue (A) + (B)	$ 88,267		$ 86,057		$ 84,347	

(1) See Table 7 – Noninterest Income in this Report for additional detail.
(2) See Table 8 – Noninterest Expense in this Report for additional detail.

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 5 to consistently reflect income from taxable and tax-exempt loans and securities based on a 35% federal statutory tax rate.

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

Net interest income on a taxable-equivalent basis was $49.0 billion in 2016, compared with $46.4 billion in 2015, and $44.4 billion in 2014. The net interest margin was 2.86% in 2016, down 9 basis points from 2.95% in 2015, which was down 16 basis points from 3.11% in 2014. The increase in net interest income for 2016, compared with 2015, resulted from growth in loans, including the GE Capital business acquisitions that closed in 2016, investment securities, trading balances, and the net benefit of higher interest rates, partially offset by an increase in funding interest expense from growth and repricing of wholesale and other business deposits, short-term borrowings, and long-term debt.

The decline in net interest margin in 2016, compared with 2015, was primarily due to growth and repricing of long-term debt balances, and growth in deposits. This was partially offset by growth and repricing of loans and investment securities. The growth in customer-driven deposits and funding balances during 2016 kept cash, federal funds sold, and other short-term investments elevated, which diluted net interest margin but was essentially neutral to net interest income.

Table 4 presents the components of earning assets and funding sources as a percentage of earning assets to provide a more meaningful analysis of year-over-year changes that influenced net interest income.

Average earning assets increased $139.0 billion in 2016 from a year ago, as average loans increased $64.5 billion, average investment securities increased $30.1 billion, and average trading assets increased $21.7 billion in 2016, compared with a year ago. In addition, average federal funds sold and other short-term investments increased $20.9 billion in 2016, compared with a year ago.

Deposits are an important low-cost source of funding and affect both net interest income and the net interest margin. Deposits include noninterest-bearing deposits, interest-bearing checking, market rate and other savings, savings certificates, other time deposits, and deposits in foreign offices. Average deposits increased to $1.3 trillion in 2016, compared with $1.2 trillion in 2015, and represented 132% of average loans compared with 135% a year ago. Average deposits decreased to 73% of average earning assets in 2016, compared with 76% a year ago as the growth in total loans outpaced deposit growth.

Table 5 presents the individual components of net interest income and the net interest margin. The effect on interest income and costs of earning asset and funding mix changes described above, combined with rate changes during 2016, are analyzed in Table 6.

Table 4: Average Earning Assets and Funding Sources as a Percentage of Average Earning Assets

	Year ended December 31,			
	2016		2015	
(in millions)	**Average balance**	**% of earning assets**	Average balance	% of earning assets
Earning assets				
Federal funds sold, securities purchased under resale agreements and other short-term investments	**$ 287,718**	**17%**	$ 266,832	17%
Trading assets	**88,400**	**5**	66,679	4
Investment securities:				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	**29,418**	**2**	32,093	2
Securities of U.S. states and political subdivisions	**52,959**	**3**	47,404	3
Mortgage-backed securities:				
Federal agencies	**110,637**	**7**	100,218	6
Residential and commercial	**18,725**	**1**	22,490	2
Total mortgage-backed securities	**129,362**	**8**	122,708	8
Other debt and equity securities	**53,433**	**3**	49,752	3
Total available-for-sale securities	**265,172**	**16**	251,957	16
Held-to-maturity securities	**90,941**	**5**	74,048	5
Mortgages held for sale (1)	**22,412**	**1**	21,603	2
Loans held for sale (1)	**218**	**—**	573	—
Loans:				
Commercial:				
Commercial and industrial - U.S.	**268,182**	**16**	237,844	15
Commercial and industrial - Non U.S.	**51,601**	**3**	46,028	3
Real estate mortgage	**127,232**	**8**	116,893	7
Real estate construction	**23,197**	**1**	20,979	1
Lease financing	**17,950**	**1**	12,301	1
Total commercial	**488,162**	**29**	434,045	27
Consumer:				
Real estate 1-4 family first mortgage	**276,712**	**16**	268,560	17
Real estate 1-4 family junior lien mortgage	**49,735**	**3**	56,242	4
Credit card	**34,178**	**2**	31,307	2
Automobile	**61,566**	**4**	57,766	4
Other revolving credit and installment	**39,607**	**2**	37,512	2
Total consumer	**461,798**	**27**	451,387	29
Total loans (1)	**949,960**	**56**	885,432	56
Other	**6,262**	**—**	4,947	—
Total earning assets	**$ 1,711,083**	**100%**	$ 1,572,071	100%
Funding sources				
Deposits:				
Interest-bearing checking	**$ 42,379**	**2%**	$ 38,640	2%
Market rate and other savings	**663,557**	**39**	625,549	40
Savings certificates	**25,912**	**2**	31,887	2
Other time deposits	**55,846**	**3**	51,790	3
Deposits in foreign offices	**103,206**	**6**	107,138	7
Total interest-bearing deposits	**890,900**	**52**	855,004	54
Short-term borrowings	**115,187**	**7**	87,465	6
Long-term debt	**239,471**	**14**	185,078	12
Other liabilities	**16,702**	**1**	16,545	1
Total interest-bearing liabilities	**1,262,260**	**74**	1,144,092	73
Portion of noninterest-bearing funding sources	**448,823**	**26**	427,979	27
Total funding sources	**$ 1,711,083**	**100%**	$ 1,572,071	100%
Noninterest-earning assets				
Cash and due from banks	**$ 18,617**		17,327	
Goodwill	**26,700**		25,673	
Other	**129,041**		127,848	
Total noninterest-earning assets	**$ 174,358**		170,848	
Noninterest-bearing funding sources				
Deposits	**$ 359,666**		339,069	
Other liabilities	**62,825**		68,174	
Total equity	**200,690**		191,584	
Noninterest-bearing funding sources used to fund earning assets	**(448,823)**		(427,979)	
Net noninterest-bearing funding sources	**$ 174,358**		170,848	
Total assets	**$ 1,885,441**		1,742,919	

(1) Nonaccrual loans are included in their respective loan categories.

Table 5: Average Balances, Yields and Rates Paid (Taxable-Equivalent Basis) (1)(2)

	2016			2015		
(in millions)	Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense
Earning assets						
Federal funds sold, securities purchased under resale agreements and other short-term investments	$ 287,718	0.51%	$ 1,457	266,832	0.28%	$ 738
Trading assets	88,400	2.89	2,553	66,679	3.01	2,010
Investment securities (3):						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	29,418	1.56	457	32,093	1.58	505
Securities of U.S. states and political subdivisions	52,959	4.20	2,225	47,404	4.23	2,007
Mortgage-backed securities:						
Federal agencies	110,637	2.50	2,764	100,218	2.73	2,733
Residential and commercial	18,725	5.49	1,029	22,490	5.73	1,289
Total mortgage-backed securities	129,362	2.93	3,793	122,708	3.28	4,022
Other debt and equity securities	53,433	3.44	1,841	49,752	3.42	1,701
Total available-for-sale securities	265,172	3.14	8,316	251,957	3.27	8,235
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	44,675	2.19	979	44,173	2.19	968
Securities of U.S. states and political subdivisions	2,893	5.32	154	2,087	5.40	113
Federal agency and other mortgage-backed securities	39,330	2.00	786	21,967	2.23	489
Other debt securities	4,043	2.01	81	5,821	1.73	101
Held-to-maturity securities	90,941	2.20	2,000	74,048	2.26	1,671
Total investment securities	356,113	2.90	10,316	326,005	3.04	9,906
Mortgages held for sale (4)	22,412	3.50	784	21,603	3.63	785
Loans held for sale (4)	218	4.01	9	573	3.25	19
Loans:						
Commercial:						
Commercial and industrial - U.S.	268,182	3.45	9,243	237,844	3.29	7,836
Commercial and industrial - non U.S.	51,601	2.36	1,219	46,028	1.90	877
Real estate mortgage	127,232	3.44	4,371	116,893	3.41	3,984
Real estate construction	23,197	3.55	824	20,979	3.57	749
Lease financing	17,950	5.10	916	12,301	4.70	577
Total commercial	488,162	3.39	16,573	434,045	3.23	14,023
Consumer:						
Real estate 1-4 family first mortgage	276,712	4.01	11,096	268,560	4.10	11,002
Real estate 1-4 family junior lien mortgage	49,735	4.39	2,183	56,242	4.25	2,391
Credit card	34,178	11.62	3,970	31,307	11.70	3,664
Automobile	61,566	5.62	3,458	57,766	5.84	3,374
Other revolving credit and installment	39,607	5.93	2,350	37,512	5.89	2,209
Total consumer	461,798	4.99	23,057	451,387	5.02	22,640
Total loans (4)	949,960	4.17	39,630	885,432	4.14	36,663
Other	6,262	2.51	157	4,947	5.11	252
Total earning assets	$ 1,711,083	3.21%	$ 54,906	1,572,071	3.20%	$ 50,373
Funding sources						
Deposits:						
Interest-bearing checking	$ 42,379	0.14%	$ 60	38,640	0.05%	$ 20
Market rate and other savings	663,557	0.07	449	625,549	0.06	367
Savings certificates	25,912	0.35	91	31,887	0.63	201
Other time deposits	55,846	0.91	508	51,790	0.45	232
Deposits in foreign offices	103,206	0.28	287	107,138	0.13	143
Total interest-bearing deposits	890,900	0.16	1,395	855,004	0.11	963
Short-term borrowings	115,187	0.29	333	87,465	0.07	64
Long-term debt	239,471	1.60	3,830	185,078	1.40	2,592
Other liabilities	16,702	2.12	354	16,545	2.15	357
Total interest-bearing liabilities	1,262,260	0.47	5,912	1,144,092	0.35	3,976
Portion of noninterest-bearing funding sources	448,823	—	—	427,979	—	—
Total funding sources	$ 1,711,083	0.35	5,912	1,572,071	0.25	3,976
Net interest margin and net interest income on a taxable-equivalent basis (5)		2.86%	$ 48,994		2.95%	$ 46,397
Noninterest-earning assets						
Cash and due from banks	$ 18,617			17,327		
Goodwill	26,700			25,673		
Other	129,041			127,848		
Total noninterest-earning assets	$ 174,358			170,848		
Noninterest-bearing funding sources						
Deposits	$ 359,666			339,069		
Other liabilities	62,825			68,174		
Total equity	200,690			191,584		
Noninterest-bearing funding sources used to fund earning assets	(448,823)			(427,979)		
Net noninterest-bearing funding sources	$ 174,358			170,848		
Total assets	$ 1,885,441			1,742,919		

(1) Our average prime rate was 3.51% for the year ended December 31, 2016, 3.26% for the year ended December 31, 2015 and 3.25% for the years ended December 31, 2014, 2013, and 2012 . The average three-month London Interbank Offered Rate (LIBOR) was 0.74%, 0.32%, 0.23%, 0.27%, and 0.43% for the same years, respectively.
(2) Yield/rates and amounts include the effects of hedge and risk management activities associated with the respective asset and liability categories.

2014			2013			2012		
Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense
$ 241,282	0.28%	$ 673	154,902	0.32%	$ 489	84,081	0.45%	$ 378
55,140	3.10	1,712	44,745	3.14	1,406	41,950	3.29	1,380
10,400	1.64	171	6,750	1.66	112	3,604	1.31	47
43,138	4.29	1,852	39,922	4.38	1,748	34,875	4.48	1,561
114,076	2.84	3,235	107,148	2.83	3,031	92,887	3.12	2,893
26,475	6.03	1,597	30,717	6.47	1,988	33,545	6.75	2,264
140,551	3.44	4,832	137,865	3.64	5,019	126,432	4.08	5,157
47,488	3.66	1,741	55,002	3.53	1,940	49,245	4.04	1,992
241,577	3.56	8,596	239,539	3.68	8,819	214,156	4.09	8,757
17,239	2.23	385	—	—	—	—	—	—
246	4.93	12	—	—	—	—	—	—
5,921	2.55	151	701	3.09	22	—	—	—
5,913	1.85	109	16	1.99	—	—	—	—
29,319	2.24	657	717	3.06	22	—	—	—
270,896	3.42	9,253	240,256	3.68	8,841	214,156	4.09	8,757
19,018	4.03	767	35,273	3.66	1,290	48,955	3.73	1,825
4,226	1.85	78	163	7.95	13	661	6.22	41
204,819	3.35	6,869	185,813	3.66	6,807	173,913	4.01	6,981
42,661	2.03	867	40,987	2.03	832	38,838	2.34	910
112,710	3.64	4,100	107,316	3.94	4,233	105,492	4.19	4,416
17,676	4.21	744	16,537	4.76	787	18,047	4.97	897
12,257	5.63	690	12,373	6.10	755	13,067	7.18	939
390,123	3.40	13,270	363,026	3.70	13,414	349,357	4.05	14,143
261,620	4.19	10,961	254,012	4.22	10,717	235,011	4.55	10,704
62,510	4.30	2,686	70,264	4.29	3,014	80,887	4.28	3,460
27,491	11.98	3,294	24,757	12.46	3,084	22,809	12.68	2,892
53,854	6.27	3,377	48,476	6.94	3,365	44,986	7.54	3,390
38,834	5.48	2,127	42,135	4.80	2,024	42,174	4.57	1,928
444,309	5.05	22,445	439,644	5.05	22,204	425,867	5.25	22,374
834,432	4.28	35,715	802,670	4.44	35,618	775,224	4.71	36,517
4,673	5.54	259	4,354	5.39	235	4,438	4.70	209
$ 1,429,667	3.39%	$ 48,457	1,282,363	3.73%	$ 47,892	1,169,465	4.20%	$ 49,107
$ 39,729	0.07%	$ 26	35,570	0.06%	$ 22	30,564	0.06%	$ 19
585,854	0.07	403	550,394	0.08	450	505,310	0.12	592
38,111	0.85	323	49,510	1.13	559	59,484	1.31	782
51,434	0.40	207	28,090	0.69	194	13,363	1.68	225
95,889	0.14	137	76,894	0.15	112	67,920	0.16	109
811,017	0.14	1,096	740,458	0.18	1,337	676,641	0.26	1,727
60,111	0.10	62	54,716	0.13	71	51,196	0.18	94
167,420	1.49	2,488	134,937	1.92	2,585	127,547	2.44	3,110
14,401	2.65	382	12,471	2.46	307	10,032	2.44	245
1,052,949	0.38	4,028	942,582	0.46	4,300	865,416	0.60	5,176
376,718	—	—	339,781	—	—	304,049	—	—
$ 1,429,667	0.28	4,028	1,282,363	0.33	4,300	1,169,465	0.44	5,176
	3.11%	$ 44,429		3.40%	$ 43,592		3.76%	$ 43,931
$ 16,361			16,272			16,303		
25,687			25,637			25,417		
121,634			121,711			130,450		
$ 163,682			163,620			172,170		
$ 303,127			280,229			263,863		
56,985			58,178			61,214		
180,288			164,994			151,142		
(376,718)			(339,781)			(304,049)		
$ 163,682			163,620			172,170		
$ 1,593,349			1,445,983			1,341,635		

(3) 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 $1.2 billion, $1.1 billion, $902 million, $792 million and $701 million for the years ended December 31, 2016, 2015, 2014, 2013 and 2012, respectively, predominantly related to tax-exempt income on certain loans and securities. The federal statutory tax rate utilized was 35% for the periods presented.

Table 6 allocates the changes in net interest income on a taxable-equivalent basis to changes in either average balances or average rates for both interest-earning assets and interest-bearing liabilities. Because of the numerous simultaneous volume and rate changes during any period, it is not possible to precisely allocate such changes between volume and rate. For this table, changes that are not solely due to either volume or rate are allocated to these categories on a pro-rata basis based on the absolute value of the change due to average volume and average rate.

Table 6: Analysis of Changes in Net Interest Income

	Year ended December 31,					
	2016 over 2015			2015 over 2014		
(in millions)	Volume	Rate	Total	Volume	Rate	Total
Increase (decrease) in interest income:						
Federal funds sold, securities purchased under resale agreements and other short-term investments	$ 62	657	719	65	—	65
Trading assets	626	(83)	543	349	(51)	298
Investment securities:						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	(42)	(6)	(48)	340	(6)	334
Securities of U.S. states and political subdivisions	232	(14)	218	181	(26)	155
Mortgage-backed securities:						
Federal agencies	272	(241)	31	(381)	(121)	(502)
Residential and commercial	(208)	(52)	(260)	(232)	(76)	(308)
Total mortgage-backed securities	64	(293)	(229)	(613)	(197)	(810)
Other debt and equity securities	130	10	140	79	(119)	(40)
Total available-for-sale securities	384	(303)	81	(13)	(348)	(361)
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	11	—	11	590	(7)	583
Securities of U.S. states and political subdivisions	43	(2)	41	100	1	101
Federal agency mortgage-backed securities	353	(56)	297	359	(21)	338
Other debt securities	(34)	14	(20)	(2)	(6)	(8)
Total held-to-maturity securities	373	(44)	329	1,047	(33)	1,014
Mortgages held for sale	28	(29)	(1)	98	(80)	18
Loans held for sale	(13)	3	(10)	(95)	36	(59)
Loans:						
Commercial:						
Commercial and industrial - U.S.	1,018	389	1,407	1,092	(125)	967
Commercial and industrial - non U.S.	114	228	342	66	(56)	10
Real estate mortgage	352	35	387	149	(265)	(116)
Real estate construction	79	(4)	75	127	(122)	5
Lease financing	286	53	339	2	(115)	(113)
Total commercial	1,849	701	2,550	1,436	(683)	753
Consumer:						
Real estate 1-4 family first mortgage	335	(241)	94	283	(242)	41
Real estate 1-4 family junior lien mortgage	(285)	77	(208)	(265)	(30)	(295)
Credit card	331	(25)	306	448	(78)	370
Automobile	215	(131)	84	237	(240)	(3)
Other revolving credit and installment	126	15	141	(74)	156	82
Total consumer	722	(305)	417	629	(434)	195
Total loans	2,571	396	2,967	2,065	(1,117)	948
Other	56	(151)	(95)	14	(21)	(7)
Total increase (decrease) in interest income	4,087	446	4,533	3,530	(1,614)	1,916
Increase (decrease) in interest expense:						
Deposits:						
Interest-bearing checking	2	38	40	(1)	(5)	(6)
Market rate and other savings	22	60	82	26	(62)	(36)
Savings certificates	(33)	(77)	(110)	(47)	(75)	(122)
Other time deposits	20	256	276	1	24	25
Deposits in foreign offices	(5)	149	144	16	(10)	6
Total interest-bearing deposits	6	426	432	(5)	(128)	(133)
Short-term borrowings	25	244	269	23	(21)	2
Long-term debt	833	405	1,238	258	(154)	104
Other liabilities	3	(6)	(3)	52	(77)	(25)
Total increase (decrease) in interest expense	867	1,069	1,936	328	(380)	(52)
Increase (decrease) in net interest income on a taxable-equivalent basis	$ 3,220	(623)	2,597	3,202	(1,234)	1,968

Noninterest Income

Table 7: Noninterest Income

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Service charges on deposit accounts	**$ 5,372**	5,168	5,050
Trust and investment fees:			
Brokerage advisory, commissions and other fees	**9,216**	9,435	9,183
Trust and investment management	**3,336**	3,394	3,387
Investment banking	**1,691**	1,639	1,710
Total trust and investment fees	**14,243**	14,468	14,280
Card fees	**3,936**	3,720	3,431
Other fees:			
Charges and fees on loans	**1,241**	1,228	1,316
Cash network fees	**537**	522	507
Commercial real estate brokerage commissions	**494**	618	469
Letters of credit fees	**321**	353	390
Wire transfer and other remittance fees	**401**	370	349
All other fees (1)(2)(3)	**733**	1,233	1,318
Total other fees	**3,727**	4,324	4,349
Mortgage banking:			
Servicing income, net	**1,765**	2,441	3,337
Net gains on mortgage loan origination/sales activities	**4,331**	4,060	3,044
Total mortgage banking	**6,096**	6,501	6,381
Insurance	**1,268**	1,694	1,655
Net gains from trading activities	**834**	614	1,161
Net gains on debt securities	**942**	952	593
Net gains from equity investments	**879**	2,230	2,380
Lease income	**1,927**	621	526
Life insurance investment income	**587**	579	558
All other (3)	**702**	(115)	456
Total	**$ 40,513**	40,756	40,820

(1) Wire transfer and other remittance fees, reflected in all other fees prior to 2016, have been separately disclosed.
(2) All other fees have been revised to include merchant processing fees for all periods presented.
(3) Effective fourth quarter 2015, the Company's proportionate share of its merchant services joint venture earnings is included in All other income.

Noninterest income of $40.51 billion represented 46% of revenue for 2016, compared with $40.76 billion, or 47%, for 2015 and $40.82 billion, or 48%, for 2014. The decline in noninterest income in 2016 compared with 2015 was largely driven by lower net gains from equity investments, lower mortgage banking, and lower insurance income due to the divestiture of our crop insurance business. These decreases in noninterest income were partially offset by growth in lease income related to the GE Capital business acquisitions and growth in all other income driven by gains from the sale of our crop insurance and health benefit services businesses. Many of our businesses, including consumer and small business deposits, credit and debit cards, investment banking, capital markets, international banking, corporate banking, community lending, corporate trust, equipment finance, and multi-family capital, grew noninterest income in 2016 compared with 2015. The slight decline in noninterest income in 2015, compared with 2014, was primarily driven by lower gains from trading activities and all other income, mostly offset by growth in many of our businesses.

Service charges on deposit accounts were $5.4 billion in 2016, up from $5.2 billion in 2015 due to higher overdraft fee revenue driven by growth in transaction volume, account growth and higher fees from commercial products and re-pricing. Service charges on deposits increased $118 million in 2015 from 2014 due to account growth, increased demand for commercial deposit products and commercial deposit product re-pricing, partially offset by lower overdraft fees driven by changes we implemented in early October 2014 designed to provide customers with more real time information to manage their deposit accounts and avoid overdrafts.

Brokerage advisory, commissions and other fees are received for providing full-service and discount brokerage services predominantly to retail brokerage clients. Income from these brokerage-related activities include asset-based fees for advisory accounts, which are based on the market value of the client's assets, and transactional commissions based on the number and size of transactions executed at the client's direction. These fees decreased to $9.2 billion in 2016, from $9.4 billion in 2015, which increased slightly compared with 2014. The decrease in these fees for 2016 was predominantly due to lower transactional commission revenue. The increase in 2015 was primarily due to growth in asset-based fees driven by higher average advisory account assets in 2015 than 2014. Retail brokerage client assets totaled $1.49 trillion at December 31, 2016, compared with $1.39 trillion and $1.42 trillion at December 31, 2015 and 2014, respectively, with all retail brokerage services provided by our Wealth and Investment Management (WIM) operating segment. For additional information on retail brokerage client assets, see the discussion and Tables 9d and 9e in the "Operating Segment Results – Wealth and Investment Management – Retail Brokerage Client Assets" section in this Report.

We earn trust and investment management fees from managing and administering assets, including mutual funds, institutional separate accounts, corporate trust, personal trust, employee benefit trust and agency assets. Trust and investment management fee income is primarily from client assets under management (AUM) for which the fees are determined based on a tiered scale relative to the market value of the AUM. AUM consists of assets for which we have investment management discretion. Our AUM totaled $652.2 billion at December 31, 2016, compared with $653.4 billion and $661.6 billion at December 31, 2015 and 2014, respectively, with substantially all of our AUM managed by our WIM operating segment. Additional information regarding our WIM operating segment AUM is provided in Table 9f and the related discussion in the "Operating Segment Results – Wealth and Investment Management – Trust and Investment Client Assets Under Management" section in this Report. In addition to AUM we have client assets under administration (AUA) that earn various administrative fees which are generally based on the extent of the services provided to administer the account. Our AUA totaled $1.6 trillion at December 31, 2016, compared with $1.4 trillion and $1.5 trillion at December 31, 2015 and 2014, respectively. Trust and investment management fees of $3.3 billion in 2016 decreased due to a shift of assets into lower yielding products, compared with 2015. Trust and investment management fees of $3.4 billion in 2015 remained stable compared with 2014.

We earn investment banking fees from underwriting debt and equity securities, arranging loan syndications, and performing other related advisory services. Investment banking fees of $1.7 billion in 2016 increased from $1.6 billion in 2015, due to higher loan syndications and advisory fees, partially offset by lower equity originations. Investment banking fees in 2015 decreased compared with 2014 due to reductions in equity capital markets and loan syndications, partially offset by increased fees in advisory services and investment-grade debt origination.

Card fees were $3.9 billion in 2016, compared with $3.7 billion in 2015 and $3.4 billion in 2014. Card fees increased in 2016 and 2015 predominantly due to increased purchase activity.

Other fees of $3.7 billion in 2016 decreased compared with 2015 predominantly driven by lower commercial real estate brokerage commissions and all other fees. Other fees in 2015 were unchanged compared with 2014 as a decline in charges and fees on loans was offset by an increase in commercial real estate brokerage commissions. Commercial real estate brokerage commissions decreased to $494 million in 2016 compared with $618 million in 2015 and $469 million in 2014. The decrease in 2016 was driven by lower sales and other property-related activities including financing and advisory services. The increase in 2015 compared with 2014 was driven by increased sales and other property-related activities including financing and advisory services. All other fees were $733 million in 2016, compared with $1.2 billion in 2015 and $1.3 billion in 2014. The decrease in all other fees in 2016 compared with 2015 was predominantly due to the deconsolidation of our merchant services joint venture in fourth quarter 2015, which resulted in a proportionate share of that income now being reflected in all other income.

Mortgage banking income, consisting of net servicing income and net gains on loan origination/sales activities, totaled $6.1 billion in 2016, compared with $6.5 billion in 2015 and $6.4 billion in 2014.

In addition to servicing fees, net mortgage loan servicing income includes amortization of commercial mortgage servicing rights (MSRs), changes in the fair value of residential MSRs during the period, as well as changes in the value of derivatives (economic hedges) used to hedge the residential MSRs. Net servicing income of $1.8 billion for 2016 included a $826 million net MSR valuation gain ($565 million increase in the fair value of the MSRs and a $261 million hedge gain). Net servicing income of $2.4 billion for 2015 included a $885 million net MSR valuation gain ($214 million increase in the fair value of the MSRs and a $671 million hedge gain), and net servicing income of $3.3 billion for 2014 included a $1.4 billion net MSR valuation gain ($2.1 billion decrease in the fair value of MSRs offset by a $3.5 billion hedge gain). The decrease in net MSR valuation gains in 2016, compared with 2015, was predominantly attributable to lower hedge gains, partially offset by more favorable MSR valuation adjustments in 2016 for servicing and foreclosure costs, net of prepayment and other updates. The lower net MSR valuation gain in 2015, compared with 2014, was primarily attributable to lower hedge gains.

Our portfolio of loans serviced for others was $1.68 trillion at December 31, 2016, $1.78 trillion at December 31, 2015, and $1.86 trillion at December 31, 2014. At December 31, 2016, the ratio of combined residential and commercial MSRs to related loans serviced for others was 0.85%, compared with 0.77% at December 31, 2015 and 0.75% at December 31, 2014. See the “Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk” section in this Report for additional information regarding our MSRs risks and hedging approach.

Net gains on mortgage loan origination/sales activities was $4.3 billion in 2016, compared with $4.1 billion in 2015 and $3.0 billion in 2014. The increase in 2016 compared with 2015 was predominantly driven by increased origination volumes, partially offset by lower margins. The increase in 2015 from 2014 was primarily driven by increased origination volumes and margins. Mortgage loan originations were $249 billion in 2016, compared with $213 billion for 2015 and $175 billion for 2014. The production margin on residential held-for-sale mortgage originations, which represents net gains on residential mortgage loan origination/sales activities divided by total residential held-for-sale mortgage originations, provides a measure of the profitability of our residential mortgage origination activity. Table 7a presents the information used in determining the production margin.

Table 7a: Selected Mortgage Production Data

		Year ended December 31,		
		2016	2015	2014
Net gains on mortgage loan origination/sales activities (in millions):				
Residential	(A)	**$ 3,168**	2,861	2,217
Commercial		**400**	362	285
Residential pipeline and unsold/repurchased loan management (1)		**763**	837	542
Total		**$ 4,331**	4,060	3,044
Residential real estate originations (in billions):				
Held-for-sale	(B)	**$ 186**	155	129
Held-for-investment		**63**	58	46
Total		**$ 249**	213	175
Production margin on residential held-for-sale mortgage originations	(A)/(B)	**1.71%**	1.84	1.72

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

The production margin was 1.71% for 2016, compared with 1.84% for 2015 and 1.72% for 2014. The decrease in the production margin in 2016, compared with 2015, was due to a shift in origination channel mix from retail to correspondent. The increase in 2015, compared with 2014, was driven by a shift in origination channel mix from correspondent to retail. Mortgage applications were $347 billion in 2016, compared with $311 billion in 2015 and $262 billion in 2014. The 1-4 family first mortgage unclosed pipeline was $30 billion at December 31, 2016, compared with $29 billion at December 31, 2015 and $26 billion at December 31, 2014. 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 9 (Mortgage Banking Activities) and Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in this Report.

Net gains on mortgage loan origination/sales activities include adjustments to the mortgage repurchase liability. Mortgage loans are repurchased from third parties based on standard representations and warranties, and early payment default clauses in mortgage sale contracts. For 2016, we released a net $103 million from the repurchase liability, compared with a net release of $159 million for 2015 and $140 million for 2014. For additional information about mortgage loan repurchases, see the “Risk Management – Credit Risk Management – Liability for Mortgage Loan Repurchase Losses” section and Note 9 (Mortgage Banking Activities) to Financial Statements in this Report.

Net gains from trading activities, which reflect unrealized changes in fair value of our trading positions and realized gains and losses, were $834 million in 2016, $614 million in 2015 and $1.2 billion in 2014. The increase in 2016 compared with 2015 was predominantly driven by higher deferred compensation gains (offset in employee benefits expense) and higher customer accommodation trading activity within our capital markets business reflecting higher fixed income trading gains. The decrease in 2015 from 2014 was driven by lower economic hedge income, lower trading from customer accommodation activity, and lower deferred compensation gains (offset in employee benefits expense). Net gains from trading activities do not include interest and dividend income and expense on trading securities. Those amounts are reported within interest income from trading assets and other interest expense from trading liabilities. For additional information about trading activities, see the "Risk Management – Asset/Liability Management – Market Risk – Trading Activities" section in this Report.

Net gains on debt and equity securities totaled $1.8 billion for 2016 and $3.2 billion and $3.0 billion for 2015 and 2014, respectively, after other-than-temporary impairment (OTTI) write-downs of $642 million, $559 million and $322 million, respectively, for the same periods. The decrease in net gains on debt and equity securities in 2016 compared with 2015 reflected lower net gains from equity investments as our portfolio benefited from strong public and private equity markets in 2015. The increase in net gains on debt and equity securities in 2015 compared with 2014 was due to higher net gains on debt securities combined with continued strong equity markets throughout the majority of 2015. The increase in OTTI write-downs in 2015 compared with 2014 mainly reflected deterioration in energy sector corporate debt investments and nonmarketable equity investments.

Lease income was $1.9 billion in 2016 compared with $621 million in 2015 and $526 million in 2014. The increase in 2016 was largely driven by the GE Capital business acquisitions, and the increase in 2015 was driven by higher gains on early leveraged lease terminations and higher rail car lease income.

All other income was $702 million for 2016 compared with $(115) million in 2015 and $456 million in 2014. All other income includes ineffectiveness recognized on derivatives that qualify for hedge accounting, the results of certain economic hedges, losses on low income housing tax credit investments, foreign currency adjustments and income from investments accounted for under the equity method, any of which can cause decreases and net losses in other income. The increase in other income in 2016 compared with 2015 was driven by a $374 million pre-tax gain from the sale of our crop insurance business in first quarter 2016, a $290 million gain from the sale of our health benefit services business in second quarter 2016, and our proportionate share of earnings from a merchant services joint venture that was deconsolidated in 2015, partially offset by changes in ineffectiveness recognized on interest rate swaps used to hedge our exposure to interest rate risk on long-term debt and cross-currency swaps, cross-currency interest rate swaps and forward contracts used to hedge our exposure to foreign currency risk and interest rate risk involving non-U.S. dollar denominated long-term debt. The decrease in other income in 2015 compared with 2014 primarily reflected changes in ineffectiveness as described above. A portion of the hedge ineffectiveness recognized was partially offset by the results of certain economic hedges and accordingly we recognized a net hedge loss of $15 million in 2016, compared with a net hedge benefit of $55 million in 2015 and a net hedge benefit of $333 million in 2014.

Noninterest Expense

Table 8: Noninterest Expense

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Salaries	**$ 16,552**	15,883	15,375
Commission and incentive compensation	**10,247**	10,352	9,970
Employee benefits	**5,094**	4,446	4,597
Equipment	**2,154**	2,063	1,973
Net occupancy	**2,855**	2,886	2,925
Core deposit and other intangibles	**1,192**	1,246	1,370
FDIC and other deposit assessments	**1,168**	973	928
Outside professional services	**3,138**	2,665	2,689
Operating losses	**1,608**	1,871	1,249
Operating leases	**1,329**	278	220
Contract services	**1,203**	978	975
Outside data processing	**888**	985	1,034
Travel and entertainment	**704**	692	904
Postage, stationery and supplies	**622**	702	733
Advertising and promotion	**595**	606	653
Telecommunications	**383**	439	453
Foreclosed assets	**202**	381	583
Insurance	**179**	448	422
All other	**2,264**	2,080	1,984
Total	**$ 52,377**	49,974	49,037

Noninterest expense was $52.4 billion in 2016, up 5% from $50.0 billion in 2015, which was up 2% from $49.0 billion in 2014. The increase in 2016, compared with 2015, was driven predominantly by higher personnel expenses, operating lease expense, outside professional services and contract services, and FDIC and other deposit assessments, partially offset by lower insurance, operating losses, foreclosed assets expense, outside data processing, postage, stationery and supplies, and telecommunications expense. The increase in 2015 from 2014 was driven by higher personnel expenses and operating losses, partially offset by lower travel and entertainment expense and foreclosed assets expense.

Personnel expenses, which include salaries, commissions, incentive compensation and employee benefits, were up $1.2 billion, or 4% in 2016, compared with 2015, due to annual salary increases, staffing growth driven by the GE Capital business acquisitions and investments in technology and risk management, higher deferred compensation expense (offset in trading revenue) and increased employee benefits. Personnel expenses were up 2% in 2015, compared with 2014, due to annual salary increases, staffing growth across various businesses, and higher revenue-related incentive compensation.

FDIC and other deposit assessments were up 20% in 2016, compared with 2015, due to an increase in deposit assessments as a result of a temporary surcharge which became effective on July 1, 2016 and incremental assessment charges driven by prior period amendments made to our Federal Regulatory Consolidated Reports of Condition and Income in fourth quarter 2016. See the "Regulation and Supervision" section in our 2016 Form 10-K for additional information.

Outside professional services expense was up 18% and contract services expense was up 23% in 2016, compared with 2015, driven by continued investments in our products, technology and service delivery, as well as costs to meet heightened regulatory expectations and evolving cybersecurity risk.

Operating losses were down 14% in 2016, compared with 2015, predominantly due to lower litigation expense for various legal matters. Operating losses were up 50% in 2015, compared with 2014, predominantly due to higher litigation expense for various legal matters.

Operating lease expense was up $1.1 billion in 2016, compared with 2015, primarily due to depreciation expense on the leased assets acquired from GE Capital. Operating lease expense was up $58 million in 2015, compared with 2014, due to higher depreciation expense driven by rail car fleet growth.

Outside data processing expense was down 10% in 2016, compared with 2015, due to lower card-related processing expense and the deconsolidation of our merchant services joint venture in fourth quarter 2015, partially offset by increased data processing expense related to the GE Capital business acquisitions. Outside data processing expense was down 5% in 2015, compared with 2014, due to lower processing fees and association dues, as well as the deconsolidation of our merchant services joint venture in fourth quarter 2015.

Travel and entertainment expense remained relatively stable in 2016, compared with 2015, and was down 23% in 2015, compared with 2014, driven by travel expense reduction initiatives.

Postage, stationery and supplies expense was down 11% in 2016, compared with 2015, driven by lower postage and mail services expense. Postage, stationery and supplies expense was down 4% in 2015, compared with 2014, driven by lower stationery and supplies expense.

Telecommunications expense was down 13% in 2016, compared with 2015, and down 3% in 2015, compared with 2014, in each case driven by lower telephone and data rates.

Foreclosed assets expense was down 47% in 2016, compared with 2015, driven by lower operating expense and write-downs, partially offset by lower gains on sales of foreclosed properties. Foreclosed assets expense was down 35% in 2015, compared with 2014, driven by higher gains on sales of foreclosed properties, lower write-downs and lower operating expense.

Insurance expense was down 60% in 2016, compared with 2015, due to the sale of our crop insurance business in first quarter 2016 and the sale of our Warranty Solutions business in third quarter 2015.

All other noninterest expense was up 9% in 2016, compared with 2015, driven by higher insurance premium payments. All other noninterest expense in 2016 included a $107 million contribution to the Wells Fargo Foundation, compared with a $126 million contribution in 2015.

Our full year 2016 efficiency ratio was 59.3%, compared with 58.1% in both 2015 and 2014. The Company expects the efficiency ratio to remain at an elevated level.

Income Tax Expense

The 2016 annual effective tax rate was 31.5%, compared with 31.2% in 2015 and 30.9% in 2014. The effective tax rate for 2016 reflected a smaller net benefit from the reduction to the reserve for uncertain tax positions resulting from settlements with tax authorities, partially offset by a net increase in tax benefits related to tax credit investments. The effective tax rate for 2015 included net reductions in reserves for uncertain tax positions primarily due to audit resolutions of prior period matters with U.S. federal and state taxing authorities. The effective tax rate for 2014 included a net reduction in the reserve for uncertain tax positions primarily due to the resolution of prior period matters with state taxing authorities. See Note 21 (Income Taxes) to

Financial Statements in this Report for additional information about our income taxes.

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). In 2017 we launched a new compensation program in our Retail Banking group focused on customer service, branch primary customer growth, household relationship balance growth and risk management. These measures are consistent with other metrics we have introduced in the recent past and, as part of this evolution, we will no longer report the cross-sell metric. The following discussion, along with Tables 9, 9a, 9b and 9c, presents our results by operating segment. Operating segment results for 2016 reflect a shift in expenses between the personnel and other expense categories as a result of the movement of support staff from the Wholesale Banking and WIM segments into a consolidated organization within the Community Banking segment. Personnel expenses associated with the transferred support staff are now being allocated from Community Banking back to the Wholesale Banking and WIM segments through other expense. For additional description of our operating segments, including additional financial information and the underlying management accounting process, see Note 24 (Operating Segments) to Financial Statements in this Report.

Table 9: Operating Segment Results – Highlights

(in millions, except average balances which are in billions)	Community Banking	Wholesale Banking	Wealth and Investment Management	Other (1)	Consolidated Company
	Year ended December 31,				
2016					
Revenue	**$ 48,866**	**28,542**	**15,946**	**(5,087)**	**88,267**
Provision (reversal of provision) for credit losses	**2,691**	**1,073**	**(5)**	**11**	**3,770**
Net income (loss)	**12,435**	**8,235**	**2,426**	**(1,158)**	**21,938**
Average loans	**$ 486.9**	**449.3**	**67.3**	**(53.5)**	**950.0**
Average deposits	**701.2**	**438.6**	**187.8**	**(77.0)**	**1,250.6**
2015					
Revenue	$ 49,341	25,904	15,777	(4,965)	86,057
Provision (reversal of provision) for credit losses	2,427	27	(25)	13	2,442
Net income (loss)	13,491	8,194	2,316	(1,107)	22,894
Average loans	$ 475.9	397.3	60.1	(47.9)	885.4
Average deposits	654.4	438.9	172.3	(71.5)	1,194.1
2014					
Revenue	$ 48,158	25,398	15,269	(4,478)	84,347
Provision (reversal of provision) for credit losses	1,796	(382)	(50)	31	1,395
Net income (loss)	13,686	8,199	2,060	(888)	23,057
Average loans	$ 468.8	355.6	52.1	(42.1)	834.4
Average deposits	614.3	404.0	163.5	(67.7)	1,114.1

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

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, and small business lending. These products also include investment, insurance and trust services in 39 states and D.C., and mortgage and home equity loans in all 50 states and D.C. The Community Banking segment also includes the results of our Corporate Treasury activities net of allocations in support of the other operating segments and results of investments in our affiliated venture capital partnerships. Table 9a provides additional financial information for Community Banking.

Table 9a: Community Banking

				Year ended December 31,	
(in millions, except average balances which are in billions)	**2016**	2015	% Change	2014	% Change
Net interest income	**$ 29,833**	29,242	2 %	$ 27,999	4 %
Noninterest income:					
Service charges on deposit accounts	**3,136**	3,014	4	3,071	(2)
Trust and investment fees:					
Brokerage advisory, commissions and other fees (1)	**1,854**	2,044	(9)	1,796	14
Trust and investment management (1)	**849**	855	(1)	817	5
Investment banking (2)	**(141)**	(123)	(15)	(80)	(54)
Total trust and investment fees	**2,562**	2,776	(8)	2,533	10
Card fees	**3,592**	3,381	6	3,119	8
Other fees	**1,494**	1,446	3	1,545	(6)
Mortgage banking	**5,624**	6,056	(7)	6,011	1
Insurance	**6**	96	(94)	127	(24)
Net gains (losses) from trading activities	**(17)**	(146)	88	136	NM
Net gains on debt securities	**928**	556	67	255	118
Net gains from equity investments (3)	**673**	1,714	(61)	1,731	(1)
Other income of the segment	**1,035**	1,206	(14)	1,631	(26)
Total noninterest income	**19,033**	20,099	(5)	20,159	—
Total revenue	**48,866**	49,341	(1)	48,158	2
Provision for credit losses	**2,691**	2,427	11	1,796	35
Noninterest expense:					
Personnel expense	**18,655**	17,574	6	16,979	4
Equipment	**2,035**	1,914	6	1,809	6
Net occupancy	**2,070**	2,104	(2)	2,154	(2)
Core deposit and other intangibles	**500**	573	(13)	620	(8)
FDIC and other deposit assessments	**649**	549	18	526	4
Outside professional services	**1,169**	1,012	16	1,011	—
Operating losses	**1,451**	1,503	(3)	1,052	43
Other expense of the segment	**893**	1,752	(49)	2,139	(18)
Total noninterest expense	**27,422**	26,981	2	26,290	3
Income before income tax expense and noncontrolling interests	**18,753**	19,933	(6)	20,072	(1)
Income tax expense	**6,182**	6,202	—	6,049	3
Net income from noncontrolling interests (4)	**136**	240	(43)	337	(29)
Net income	**$ 12,435**	13,491	(8)%	$ 13,686	(1)%
Average loans	**$ 486.9**	475.9	2 %	$ 468.8	2 %
Average deposits	**701.2**	654.4	7	614.3	7

NM - Not meaningful
(1) Represents income on products and services for WIM customers served through Community Banking distribution channels and is eliminated in consolidation.
(2) Includes syndication and underwriting fees paid to Wells Fargo Securities which are offset in our Wholesale Banking segment.
(3) Predominantly represents gains resulting from venture capital investments.
(4) Reflects results attributable to noncontrolling interests predominantly associated with the Company's consolidated venture capital investments.

Community Banking reported net income of $12.4 billion in 2016, down $1.1 billion, or 8%, from $13.5 billion in 2015, which was down 1% from $13.7 billion in 2014. Revenue was $48.9 billion in 2016, a decrease of $475 million, or 1%, compared with $49.3 billion in 2015, which was up 2% compared with $48.2 billion in 2014. The decrease in revenue for 2016 was due to lower gains on equity investments, and lower mortgage banking revenue driven by a decrease in servicing income, partially offset by higher net gains on mortgage loan originations driven by higher origination volumes. Additionally, revenue was affected by lower trust and investment fees driven by a decrease in brokerage transactional revenue, and lower other income (including lower net hedge ineffectiveness income and a gain on the sale of our Warranty Solutions business in 2015). The decrease in revenue in 2016 was partially offset by higher net interest income, gains on debt securities, revenue from debit and credit card volumes, higher deferred compensation plan investment results (offset in employee benefits expense), and an increase in deposit service charges driven by higher overdraft fees and account growth. The increase in revenue for 2015 compared with 2014 was primarily driven by higher net interest income, gains on sale of debt securities, debit and credit card fees, and trust and investment fees, partially offset by lower gains from trading activities, deferred compensation plan investment gains (offset in employee benefits expense) and other income. Lower other income in 2015, compared with 2014, reflected a gain on sale of government guaranteed student loans in 2014 and lower net hedge ineffectiveness accounting gains in 2015. Average deposits increased $46.8 billion in 2016, or 7%, from 2015, which increased $40.1 billion, or 7%, from 2014.

Noninterest expense increased $441 million in 2016, or 2%, from 2015, which was up $691 million, or 3%, from 2014. The increase in noninterest expense in 2016 was due to higher personnel expense driven by increased deferred compensation plan expense (offset in trading revenue) and increased personnel, as well as higher project-related, equipment, and FDIC expense. These increases in noninterest expense were partially offset by lower foreclosed assets expense driven by improvement in the residential real estate portfolio, lower telephone and supplies expenses, data processing costs, and other expense. The increase in noninterest expense in 2015 compared with 2014 largely reflected higher personnel expense, operating losses, equipment expense, and a $126 million donation to the Wells Fargo Foundation, partially offset by lower deferred compensation expense (offset in revenue), foreclosed assets, travel, data processing, occupancy and various other expenses. The provision for credit losses of $2.7 billion in 2016 was $264 million, or 11%, higher than 2015, which was $631 million, or 35%, higher than 2014. The $264 million increase in provision in 2016 was due to the impact of a $318 million allowance release in 2015, partially offset by $69 million lower net charge-offs in 2016 as improvement in the consumer real estate portfolio was partially offset by increases in automobile, credit card, and other consumer portfolio net charge-offs. The increase in provision in 2015 was due to a $1.1 billion lower allowance release, partially offset by $403 million lower net charge-offs related to improvement in the consumer real estate portfolio.

Wholesale Banking provides financial solutions to businesses across the United States and globally with annual sales generally in excess of $5 million. Products and businesses include Business Banking, Middle Market Commercial Banking, Government and Institutional Banking, Corporate Banking, Commercial Real Estate, Treasury Management, Wells Fargo Capital Finance, Insurance, International, Real Estate Capital Markets, Commercial Mortgage Servicing, Corporate Trust, Equipment Finance, Wells Fargo Securities, Principal Investments, and Asset Backed Finance. Table 9b provides additional financial information for Wholesale Banking.

Table 9b: Wholesale Banking

	Year ended December 31,				
(in millions, except average balances which are in billions)	**2016**	2015	% Change	2014	% Change
Net interest income	**$ 16,052**	14,350	12%	$ 14,073	2 %
Noninterest income:					
Service charges on deposit accounts	**2,235**	2,153	4	1,978	9
Trust and investment fees:					
Brokerage advisory, commissions and other fees	**368**	285	29	255	12
Trust and investment management	**473**	407	16	374	9
Investment banking	**1,833**	1,762	4	1,803	(2)
Total trust and investment fees	**2,674**	2,454	9	2,432	1
Card fees	**342**	337	1	310	9
Other fees	**2,226**	2,872	(22)	2,798	3
Mortgage banking	**475**	447	6	370	21
Insurance	**1,262**	1,598	(21)	1,528	5
Net gains from trading activities	**677**	719	(6)	886	(19)
Net gains on debt securities	**13**	396	(97)	334	19
Net gains from equity investments	**199**	511	(61)	624	(18)
Other income of the segment	**2,387**	67	NM	65	3
Total noninterest income	**12,490**	11,554	8	11,325	2
Total revenue	**28,542**	25,904	10	25,398	2
Provision (reversal of provision) for credit losses	**1,073**	27	NM	(382)	107
Noninterest expense:					
Personnel expense	**7,035**	6,936	1	6,660	4
Equipment	**72**	97	(26)	106	(8)
Net occupancy	**461**	452	2	446	1
Core deposit and other intangibles	**390**	347	12	391	(11)
FDIC and other deposit assessments	**429**	352	22	328	7
Outside professional services	**1,075**	837	28	834	—
Operating losses	**118**	152	(22)	70	117
Other expense of the segment	**6,546**	4,943	32	4,996	(1)
Total noninterest expense	**16,126**	14,116	14	13,831	2
Income before income tax expense and noncontrolling interest	**11,343**	11,761	(4)	11,949	(2)
Income tax expense	**3,136**	3,424	(8)	3,540	(3)
Net income (loss) from noncontrolling interest	**(28)**	143	NM	210	(32)
Net income	**$ 8,235**	8,194	1%	$ 8,199	— %
Average loans	**$ 449.3**	397.3	13%	$ 355.6	12 %
Average deposits	**438.6**	438.9	—	404.0	9

NM - Not meaningful

Wholesale Banking reported net income of $8.2 billion in 2016, up $41 million from 2015, which was down $5 million from 2014. The year over year increase in net income for 2016 included increased revenues and lower minority interest expense which were offset by higher loan loss provision and noninterest expense. The year over year decrease in net income in 2015 compared with 2014 was the result of increased revenue being more than offset by increased noninterest expense and higher loan loss provision. Revenue in 2016 of $28.5 billion increased $2.6 billion, or 10%, from $25.9 billion in 2015, which increased by $506 million, or 2%, from 2014, on both increased net interest and noninterest income. Net interest income of $16.1 billion in 2016 increased $1.7 billion, or 12%, from 2015, which was up $277 million, or 2%, from 2014. The increase in 2016 and 2015 was due to strong loan and other earning asset growth.

Average loans of $449.3 billion in 2016 increased $52.0 billion, or 13%, from 2015, which was up $41.7 billion, or 12%, from 2014. Loan growth in 2016 and 2015 was broad based across many Wholesale Banking businesses and in 2016 included the impact of the GE Capital business acquisitions. Average deposits of $438.6 billion in 2016 were relatively flat compared with 2015 which was up $34.9 billion, or 9%, from 2014, reflecting strong customer liquidity.

Noninterest income of $12.5 billion in 2016 increased $936 million, or 8%, from 2015 driven by increased lease income from the GE Capital business acquisitions, gains on the sale of our crop insurance and health benefit services businesses, increased trust and investment banking revenue driven by syndicated loan, advisory, and debt originations fees, and higher service charges on deposit accounts (which represented treasury management fees for providing cash management payable and receivable services), partially offset by lower gains on debt and equity securities, lower insurance income due to the divestiture of our crop insurance business, and lower other fees related to a decline in commercial real estate brokerage fees and the deconsolidation of our merchant services joint venture in fourth quarter 2015, which also lowered 2016 minority interest expense. Noninterest income of $11.6 billion in 2015 increased $229 million, or 2%, from 2014 driven by growth in treasury management, reinsurance, commercial real estate brokerage fees, multi-family capital, municipal products, principal investing, corporate trust and business banking, partially offset by lower customer accommodation-related gains on trading assets and lower gains on equity investments.

Noninterest expense of $16.1 billion in 2016 increased $2.0 billion, or 14%, compared with 2015, due to higher personnel and operating lease expense related to the GE Capital business acquisitions as well as higher expenses related to growth initiatives, compliance and regulatory requirements. Noninterest expense in 2015 was up $285 million, or 2%, from 2014 due to higher personnel and non-personnel expenses related to growth initiatives and compliance and regulatory requirements as well as increased operating losses. The provision for credit losses in 2016 increased $1.0 billion from 2015, which increased $409 million from 2014, in each case due primarily to increased losses in the oil and gas portfolio.

Wealth and Investment Management provides a full range of personalized wealth management, investment and retirement products and services to clients across U.S. based businesses including Wells Fargo Advisors, The Private Bank, Abbot Downing, Wells Fargo Institutional Retirement and Trust, and Wells Fargo Asset Management. We deliver financial planning, private banking, credit, investment management and fiduciary services to high-net worth and ultra-high-net worth individuals and families. We also serve clients' brokerage needs, supply retirement and trust services to institutional clients and provide investment management capabilities delivered to global institutional clients through separate accounts and the Wells Fargo Funds. Table 9c provides additional financial information for WIM.

Table 9c: Wealth and Investment Management

				Year ended December 31,	
(in millions, except average balances which are in billions)	2016	2015	% Change	2014	% Change
Net interest income	$ 3,913	3,478	13%	$ 3,032	15%
Noninterest income:					
Service charges on deposit accounts	19	19	—	18	6
Trust and investment fees:					
Brokerage advisory, commissions and other fees	8,870	9,154	(3)	8,933	2
Trust and investment management	2,891	3,017	(4)	3,045	(1)
Investment banking (1)	(1)	—	NM	(13)	100
Total trust and investment fees	11,760	12,171	(3)	11,965	2
Card fees	6	5	20	4	25
Other fees	18	17	6	17	—
Mortgage banking	(9)	(7)	(29)	1	NM
Insurance	—	—	NM	—	NM
Net gains from trading activities	174	41	324	139	(71)
Net gains on debt securities	1	—	NM	4	(100)
Net gains from equity investments	7	5	40	25	(80)
Other income of the segment	57	48	19	64	(25)
Total noninterest income	12,033	12,299	(2)	12,237	1
Total revenue	15,946	15,777	1	15,269	3
Reversal of provision for credit losses	(5)	(25)	80	(50)	50
Noninterest expense:					
Personnel expense	7,852	7,820	—	7,851	—
Equipment	52	57	(9)	62	(8)
Net occupancy	442	447	(1)	435	3
Core deposit and other intangibles	302	326	(7)	359	(9)
FDIC and other deposit assessments	152	123	24	126	(2)
Outside professional services	925	846	9	877	(4)
Operating losses	50	229	(78)	134	71
Other expense of the segment	2,284	2,219	3	2,149	3
Total noninterest expense	12,059	12,067	—	11,993	1
Income before income tax expense and noncontrolling interest	3,892	3,735	4	3,326	12
Income tax expense	1,467	1,420	3	1,262	13
Net income (loss) from noncontrolling interest	(1)	(1)	—	4	NM
Net income	$ 2,426	2,316	5%	$ 2,060	12%
Average loans	$ 67.3	60.1	12%	$ 52.1	15%
Average deposits	187.8	172.3	9	163.5	5

NM - Not meaningful
(1) Includes syndication and underwriting fees paid to Wells Fargo Securities which are offset in our Wholesale Banking segment.

WIM reported net income of $2.4 billion in 2016, up $110 million, or 5%, from 2015, which was up 12% from $2.1 billion in 2014. Revenue of $15.9 billion in 2016 increased $169 million from 2015, which was up $508 million from 2014. The increase in revenue for 2016 was due to growth in net interest income, partially offset by lower noninterest income. The increase in revenue for 2015 was due to growth in both net interest income and noninterest income. Net interest income increased 13% in 2016 and 15% in 2015, in each case due to growth in investment portfolios and loan balances. Average loan balances of $67.3 billion in 2016 increased 12% from $60.1 billion in 2015, which was up 15% from $52.1 billion in 2014. Average deposits of $187.8 billion in 2016 increased 9% from $172.3 billion in 2015, which was up 5% from $163.5 billion in 2014. Noninterest income in 2016 decreased 2% from 2015 due to lower transaction revenue from reduced client activity, and lower asset-based fees, partially offset by higher gains on deferred compensation plan investments (offset in employee benefits expense). Noninterest income in 2015 increased 1% from 2014 primarily due to growth in asset-based fees driven by higher average client assets in 2015 than 2014, partially offset by lower gains on deferred compensation plan investments (offset in employee benefits expense). Noninterest expense of $12.1 billion in 2016 was flat compared with 2015, as a decline in operating losses reflecting lower litigation expense for various legal matters was offset by higher outside professional services expense, other expense, and personnel expense. Noninterest expense increased 1% in 2015 compared with 2014 predominantly due to higher non-personnel expenses and increased broker commissions, partially offset by lower deferred compensation plan expense (offset in trading revenue). The provision for credit losses increased $20 million in 2016, due to lower net recoveries. The provision for credit losses increased $25 million in 2015, driven primarily by lower allowance releases.

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

Retail Brokerage Client Assets Brokerage advisory, commissions and other fees are received for providing full-service and discount brokerage services predominantly to retail brokerage clients. Offering advisory account relationships to our brokerage clients is an important component of our broader strategy of meeting their financial needs. Although a majority of our retail brokerage client assets are in accounts that earn brokerage commissions, the fees from those accounts generally represent transactional commissions based on the number and size of transactions executed at the client's direction. Fees earned from advisory accounts are asset-based and depend on changes in the value of the client's assets as well as the level of assets resulting from inflows and outflows. A major portion of our brokerage advisory, commissions and other fee income is earned from advisory accounts. Table 9d shows advisory account client assets as a percentage of total retail brokerage client assets at December 31, 2016, 2015 and 2014.

Table 9d: Retail Brokerage Client Assets

	Year ended December 31,		
(in billions)	**2016**	2015	2014
Retail brokerage client assets	**$ 1,486.1**	1,386.9	1,421.8
Advisory account client assets	**463.8**	419.9	422.8
Advisory account client assets as a percentage of total client assets	**31%**	30	30

Retail Brokerage advisory accounts include assets that are financial advisor-directed and separately managed by third-party managers, as well as certain client-directed brokerage assets where we earn a fee for advisory and other services, but do not have investment discretion. These advisory accounts generate fees as a percentage of the market value of the assets, which vary across the account types based on the distinct services provided, and are affected by investment performance as well as asset inflows and outflows. For the years ended December 31, 2016, 2015 and 2014, the average fee rate by account type ranged from 80 to 120 basis points. Table 9e presents retail brokerage advisory account client assets activity by account type for the years ended December 31, 2016, 2015 and 2014.

Table 9e: Retail Brokerage Advisory Account Client Assets

	Year ended				
(in billions)	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period
December 31, 2016					
Client directed (4)	**$ 154.7**	**36.0**	**(37.5)**	**5.9**	**159.1**
Financial advisor directed (5)	**91.9**	**28.6**	**(18.7)**	**13.9**	**115.7**
Separate accounts (6)	**110.4**	**26.0**	**(21.9)**	**11.2**	**125.7**
Mutual fund advisory (7)	**62.9**	**8.7**	**(11.6)**	**3.3**	**63.3**
Total advisory client assets	**419.9**	**99.3**	**(89.7)**	**34.3**	**463.8**
December 31, 2015					
Client directed (4)	159.8	38.7	(37.3)	(6.5)	154.7
Financial advisor directed (5)	85.4	20.7	(17.5)	3.3	91.9
Separate accounts (6)	110.7	21.6	(20.5)	(1.4)	110.4
Mutual fund advisory (7)	66.9	10.4	(12.2)	(2.2)	62.9
Total advisory client assets	422.8	91.4	(87.5)	(6.8)	419.9
December 31, 2014					
Client directed (4)	144.5	41.6	(31.8)	5.5	159.8
Financial advisor directed (5)	71.6	18.4	(13.4)	8.8	85.4
Separate accounts (6)	99.9	23.1	(18.3)	6.0	110.7
Mutual fund advisory (7)	58.8	14.6	(9.7)	3.2	66.9
Total advisory client assets	374.8	97.7	(73.2)	23.5	422.8

(1) Inflows include new advisory account assets, contributions, dividends and interest.
(2) Outflows include closed advisory account assets, withdrawals and client management fees.
(3) Market impact reflects gains and losses on portfolio investments.
(4) Investment advice and other services are provided to client, but decisions are made by the client and the fees earned are based on a percentage of the advisory account assets, not the number and size of transactions executed by the client.
(5) Professionally managed portfolios with fees earned based on respective strategies and as a percentage of certain client assets.
(6) Professional advisory portfolios managed by Wells Fargo Asset Management advisors or third-party asset managers. Fees are earned based on a percentage of certain client assets.
(7) Program with portfolios constructed of load-waived, no-load and institutional share class mutual funds. Fees are earned based on a percentage of certain client assets.

Trust and Investment Client Assets Under Management
We earn trust and investment management fees from managing and administering assets, including mutual funds, institutional separate accounts, personal trust, employee benefit trust and agency assets through our asset management, wealth and retirement businesses. Our asset management business is conducted by Wells Fargo Asset Management (WFAM), which offers Wells Fargo proprietary mutual funds and manages institutional separate accounts. Our wealth business manages assets for high net worth clients, and our retirement business provides total retirement management, investments, and trust and custody solutions tailored to meet the needs of institutional clients. Substantially all of our trust and investment management fee income is earned from AUM where we have discretionary management authority over the investments and generate fees as a percentage of the market value of the AUM. Table 9f presents AUM activity for the years ended December 31, 2016, 2015 and 2014.

Table 9f: WIM Trust and Investment – Assets Under Management

					Year ended
(in billions)	Balance, beginning of period	Inflows (1)	Outflows (2)	Market impact (3)	Balance, end of period
December 31, 2016					
Assets managed by WFAM (4):					
Money market funds (5)	**$ 123.6**	**—**	**(21.0)**	**—**	**102.6**
Other assets managed	**366.1**	**114.0**	**(125.0)**	**24.5**	**379.6**
Assets managed by Wealth and Retirement (6)	**162.1**	**37.0**	**(35.9)**	**5.3**	**168.5**
Total assets under management	**651.8**	**151.0**	**(181.9)**	**29.8**	**650.7**
December 31, 2015					
Assets managed by WFAM (4):					
Money market funds (5)	123.1	0.5	—	—	123.6
Other assets managed	372.6	93.5	(97.0)	(3.0)	366.1
Assets managed by Wealth and Retirement (6)	165.3	36.2	(34.1)	(5.3)	162.1
Total assets under management	661.0	130.2	(131.1)	(8.3)	651.8
December 31, 2014					
Assets managed by WFAM (4):					
Money market funds (5)	126.2	—	(3.1)	—	123.1
Other assets managed	360.9	100.6	(99.3)	10.4	372.6
Assets managed by Wealth and Retirement (6)	159.4	34.2	(31.2)	2.9	165.3
Total assets under management	646.5	134.8	(133.6)	13.3	661.0

(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 $6.9 billion, $8.2 billion and $8.9 billion as of December 31, 2016, 2015 and 2014, respectively, of client assets invested in proprietary funds managed by WFAM.

At December 31, 2016, our assets totaled $1.9 trillion, up $142.5 billion from December 31, 2015. Asset growth was largely due to investment securities, which increased $60.4 billion, and loans, which increased $51.0 billion (including $27.9 billion from the GE Capital business acquisitions). Additionally, other assets increased $19.0 billion due to $5.9 billion in operating leases from the GE Capital business acquisitions, and higher receivables related to unsettled trading security transactions. An increase of $55.5 billion in long-term debt (including debt issued to fund the GE Capital business acquisitions and debt issued for Total Loss Absorbing Capacity (TLAC) purposes), deposit growth of $82.8 billion, and total equity growth of $6.6 billion from December 31, 2015, were the predominant sources that funded our asset growth for 2016. Equity growth benefited from a $12.2 billion increase in retained earnings, net of dividends paid.

The following discussion provides additional information about the major components of our balance sheet. Information regarding our capital and changes in our asset mix is included in the "Earnings Performance – Net Interest Income" and "Capital Management" sections and Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Investment Securities

Table 10: Investment Securities – Summary

	December 31, 2016			December 31, 2015		
(in millions)	Amortized Cost	Net unrealized gain (loss)	Fair value	Amortized Cost	Net unrealized gain (loss)	Fair value
Available-for-sale securities:						
Debt securities	$ 309,447	(2,294)	307,153	263,318	2,403	265,721
Marketable equity securities	706	505	1,211	1,058	579	1,637
Total available-for-sale securities	310,153	(1,789)	308,364	264,376	2,982	267,358
Held-to-maturity debt securities	99,583	(428)	99,155	80,197	370	80,567
Total investment securities (1)	$ 409,736	(2,217)	407,519	344,573	3,352	347,925

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

Table 10 presents a summary of our investment securities portfolio, which increased $60.4 billion from December 31, 2015, predominantly due to net purchases of federal agency mortgage-backed securities.

The total net unrealized losses on available-for-sale securities were $1.8 billion at December 31, 2016, down from net unrealized gains of $3.0 billion at December 31, 2015, driven by higher long-term interest rates and realized securities gains.

The size and composition of the investment securities portfolio is largely dependent upon the Company's liquidity and interest rate risk management objectives. Our business generates assets and liabilities, such as loans, deposits and long-term debt, which have different maturities, yields, re-pricing, prepayment characteristics and other provisions that expose us to interest rate and liquidity risk. The available-for-sale securities portfolio predominantly consists of liquid, high quality U.S. Treasury and federal agency debt, agency mortgage-backed securities (MBS), privately-issued residential and commercial MBS, securities issued by U.S. states and political subdivisions, corporate debt securities, and highly rated collateralized loan obligations. Due to its highly liquid nature, the available-for-sale securities portfolio can be used to meet funding needs that arise in the normal course of business or due to market stress. Changes in our interest rate risk profile may occur due to changes in overall economic or market conditions, which could influence loan origination demand, prepayment speeds, or deposit balances and mix. In response, the available-for-sale securities portfolio can be rebalanced to meet the Company's interest rate risk management objectives. In addition to meeting liquidity and interest rate risk management objectives, the available-for-sale securities portfolio may provide yield enhancement over other short-term assets. See the "Risk Management – Asset/Liability Management" section in this Report for more information on liquidity and interest rate risk. The held-to-maturity securities portfolio consists of high quality U.S. Treasury debt, securities issued by U.S. states and political subdivisions, agency MBS, asset-backed securities (ABS) primarily collateralized by automobile loans and leases and cash, and collateralized loan obligations where our intent is to hold these securities to maturity and collect the contractual cash flows. The held-to-maturity securities portfolio may also provide yield enhancement over short-term assets.

We analyze securities for other-than-temporary impairment (OTTI) quarterly or more often if a potential loss-triggering event occurs. Of the $642 million in OTTI write-downs recognized in earnings in 2016, $189 million related to debt securities and $5 million related to marketable equity securities, which are each included in available-for-sale securities. Another $448 million in OTTI write-downs were related to nonmarketable equity investments, which are included in other assets. OTTI write-downs recognized in earnings related to oil and gas investments totaled $258 million in 2016, of which $88 million related to corporate debt investment securities, and $170 million related to nonmarketable equity investments. For a discussion of our OTTI accounting policies and underlying considerations and analysis, see Note 1 (Summary of Significant Accounting Policies) and Note 5 (Investment Securities) to Financial Statements in this Report.

At December 31, 2016, investment securities included $57.4 billion of municipal bonds, of which 96.6% were rated "A-" or better based largely on external and, in some cases, internal ratings. Additionally, some of the securities in our total municipal bond portfolio are guaranteed against loss by bond insurers. These guaranteed bonds are substantially all investment grade and were generally underwritten in accordance with our own investment standards prior to the determination to purchase, without relying on the bond insurer's guarantee in making the investment decision. The credit quality of our municipal bond holdings are monitored as part of our ongoing impairment analysis.

The weighted-average expected maturity of debt securities available-for-sale was 6.5 years at December 31, 2016. Because 57.8% of this portfolio is MBS, the expected remaining maturity is shorter than the remaining contractual maturity 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 11.

Table 11: Mortgage-Backed Securities Available for Sale

(in billions)	Fair value	Net unrealized gain (loss)	Expected remaining maturity (in years)
At December 31, 2016			
Actual	177.5	(1.8)	6.6
Assuming a 200 basis point:			
Increase in interest rates	158.3	(21.0)	8.1
Decrease in interest rates	187.3	8.0	3.0

The weighted-average expected maturity of debt securities held-to-maturity was 6.5 years at December 31, 2016. See Note 5 (Investment Securities) to Financial Statements in this Report for a summary of investment securities by security type.

Loan Portfolios

Table 12 provides a summary of total outstanding loans by portfolio segment. Total loans increased $51.0 billion from December 31, 2015, largely due to growth in commercial and industrial and real estate mortgage loans within the commercial loan portfolio segment, which included $27.9 billion of commercial and industrial loans and capital leases acquired from GE Capital. Growth of $1.1 billion in the consumer loan portfolio segment reflected the impact of a $3.8 billion deconsolidation of certain reverse mortgage loans within the real estate 1-4 family first mortgage portfolio.

Table 12: Loan Portfolios

(in millions)	December 31, 2016	December 31, 2015
Commercial	$ 506,536	456,583
Consumer	461,068	459,976
Total loans	967,604	916,559
Change from prior year	$ 51,045	54,008

A discussion of average loan balances and a comparative detail of average loan balances is included in Table 4a 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 13 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 13: Maturities for Selected Commercial Loan Categories

	December 31, 2016				December 31, 2015			
(in millions)	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	$ 105,421	199,211	26,208	330,840	91,214	184,641	24,037	299,892
Real estate mortgage	22,713	68,928	40,850	132,491	18,622	68,391	35,147	122,160
Real estate construction	9,576	13,102	1,238	23,916	7,455	13,284	1,425	22,164
Total selected loans	$ 137,710	281,241	68,296	487,247	117,291	266,316	60,609	444,216
Distribution of loans to changes in interest rates:								
Loans at fixed interest rates	$ 19,389	29,748	26,859	75,996	16,819	27,705	23,533	68,057
Loans at floating/variable interest rates	118,321	251,493	41,437	411,251	100,472	238,611	37,076	376,159
Total selected loans	$ 137,710	281,241	68,296	487,247	117,291	266,316	60,609	444,216

Deposits

Deposits increased $82.8 billion from December 31, 2015, to $1.3 trillion, reflecting continued broad-based growth across our commercial and consumer businesses. Table 14 provides additional information regarding total deposits. Information regarding the impact of deposits on net interest income and a comparison of average deposit balances is provided in “Earnings Performance – Net Interest Income” and Table 5 earlier in this Report.

Table 14: Deposits

($ in millions)	Dec 31, 2016	% of total deposits	Dec 31, 2015	% of total deposits	% Change
Noninterest-bearing	$ 375,967	29%	$ 351,579	29%	7
Interest-bearing checking	49,403	4	40,115	3	23
Market rate and other savings	687,846	52	651,563	54	6
Savings certificates	23,968	2	28,614	2	(16)
Other time deposits	52,649	4	49,032	4	7
Deposits in foreign offices (1)	116,246	9	102,409	8	14
Total deposits	$ 1,306,079	100%	$ 1,223,312	100%	7

(1) Includes Eurodollar sweep balances of $74.8 billion and $71.1 billion at December 31, 2016 and 2015, respectively.

Equity

Total equity was $200.5 billion at December 31, 2016, compared with $193.9 billion at December 31, 2015. The increase was predominantly driven by a $12.2 billion increase in retained earnings from earnings net of dividends paid, and a $2.3 billion increase in preferred stock, partially offset by a net reduction in common stock due to repurchases.

Off-Balance Sheet Arrangements

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

Commitments to Lend and Purchase Securities

We enter into commitments to lend funds to customers, which are usually at a stated interest rate, if funded, and for specific purposes and time periods. When we make commitments, we are exposed to credit risk. However, the maximum credit risk for these commitments will generally be lower than the contractual amount because a significant portion of these commitments is expected to expire without being used by the customer. For more information on lending commitments, see Note 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 4 (Federal Funds Sold, Securities Purchased under Resale Agreements and Other Short-Term Investments) to Financial Statements in this Report.

Transactions with Unconsolidated Entities

In the normal course of business, we enter into various types of on- and off-balance sheet transactions with special purpose entities (SPEs), which are corporations, trusts, limited liability companies or partnerships that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions and are considered variable interest entities (VIEs). For more information on securitizations, including sales proceeds and cash flows from securitizations, see Note 8 (Securitizations and Variable Interest Entities) to Financial Statements in this Report.

Guarantees and Certain Contingent Arrangements

Guarantees are contracts that contingently require us to make payments to a guaranteed party based on an event or a change in an underlying asset, liability, rate or index. Guarantees are generally in the form of standby letters of credit, securities lending and other indemnifications, written put options, recourse obligations and other types of arrangements. For more information on guarantees and certain contingent arrangements, see Note 14 (Guarantees, Pledged Assets and Collateral) to Financial Statements in this Report.

Derivatives

We use derivatives to manage exposure to market risk, including interest rate risk, credit risk and foreign currency risk, and to assist customers with their risk management objectives. Derivatives are recorded on the balance sheet at fair value, and volume can be measured in terms of the notional amount, which is generally not exchanged, but is used only as the basis on which interest and other payments are determined. The notional amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the instruments. For more information on derivatives, see Note 16 (Derivatives) to Financial Statements in this Report.

Contractual Cash Obligations

In addition to the contractual commitments and arrangements previously described, which, depending on the nature of the obligation, may or may not require use of our resources, we enter into other contractual obligations that may require future cash payments in the ordinary course of business, including debt issuances for the funding of operations and leases for premises and equipment.

Table 15 summarizes these contractual obligations as of December 31, 2016, excluding the projected cash payments for obligations for short-term borrowing arrangements and pension and postretirement benefit plans. More information on those obligations is in Note 12 (Short-Term Borrowings) and Note 20 (Employee Benefits and Other Expenses) to Financial Statements in this Report.

Table 15: Contractual Cash Obligations

		December 31, 2016					
(in millions)	Note(s) to Financial Statements	Less than 1 year	1-3 years	3-5 years	More than 5 years	Indeterminate maturity	Total
Contractual payments by period:							
Deposits (1)	11	$ 85,427	13,326	4,653	4,485	1,198,188	1,306,079
Long-term debt (2)	7, 13	29,545	81,317	53,420	90,795	—	255,077
Interest (3)		4,740	6,896	5,068	20,694	—	37,398
Operating leases	7	1,195	2,063	1,437	2,174	—	6,869
Unrecognized tax obligations	21	114	—	—	—	2,790	2,904
Commitments to purchase debt and equity securities (4)		2,229	153	284	—	—	2,666
Purchase and other obligations (5)		862	751	338	34	—	1,985
Total contractual obligations		$ 124,112	104,506	65,200	118,182	1,200,978	1,612,978

(1) Includes interest-bearing and noninterest-bearing checking, and market rate and other savings accounts.
(2) Balances are presented net of unamortized debt discounts and premiums and purchase accounting adjustments.
(3) Represents the future interest obligations related to interest-bearing time deposits and long-term debt in the normal course of business including a net reduction of $22.4 billion related to hedges used to manage interest rate risk. These interest obligations assume no early debt redemption. We estimated variable interest rate payments using December 31, 2016, rates, which we held constant until maturity. We have excluded interest related to structured notes where our payment obligation is contingent on the performance of certain benchmarks.
(4) Includes unfunded commitments to purchase debt and equity investments, excluding trade date payables, of $638 million and $2.0 billion, respectively. Our unfunded equity commitments include certain investments subject to the Volcker Rule, which we expect to divest in the near future. For additional information regarding the Volcker Rule, see the "Regulatory Matters" section in this Report. We have presented predominantly all of our contractual obligations on equity investments above in the maturing in less than one year category as there are no specified contribution dates in the agreements. These obligations may be requested at any time by the investment manager.
(5) Represents agreements related to unrecognized obligations to purchase goods or services.

We are subject to the income tax laws of the U.S., its states and municipalities, and those of the foreign jurisdictions in which we operate. We have various unrecognized tax obligations related to these operations that may require future cash tax payments to various taxing authorities. Because of their uncertain nature, the expected timing and amounts of these payments generally are not reasonably estimable or determinable. We attempt to estimate the amount payable in the next 12 months based on the status of our tax examinations and settlement discussions. See Note 21 (Income Taxes) to Financial Statements in this Report for more information.

Transactions with Related Parties

The Related Party Disclosures topic of the Accounting Standards Codification (ASC) 850 requires disclosure of material related party transactions, other than compensation arrangements, expense allowances and other similar items in the ordinary course of business. Based on ASC 850, we had no transactions required to be reported for the years ended December 31, 2016, 2015 and 2014. The Company has included within its disclosures information on its equity investments, relationships with variable interest entities, and employee benefit plan arrangements. See Note 7 (Premises, Equipment, Lease Commitments and Other Assets), Note 8 (Securitizations and Variable Interest Entities) and Note 20 (Employee Benefits and Other Expenses) 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, stockholders, regulators and other stakeholders. Among the risks that we manage are conduct risk, operational risk, credit risk, and asset/liability management related risks, which include interest rate risk, market risk, liquidity risk, and funding related risks. We operate under a Board-level approved risk framework which outlines our company-wide approach to risk management and oversight, and describes the structures and practices employed to manage current and emerging risks inherent to Wells Fargo.

Risk Framework

Our risk framework consists of three lines of defense – (1) Wells Fargo's lines of business and certain other corporate functions, (2) Corporate Risk, our Company's primary second-line of defense led by our Chief Risk Officer who reports to the Board's Risk Committee, and (3) Wells Fargo Audit Services, our internal audit function which is led by our Chief Auditor who reports to the Board's Audit & Examination Committee. The Company's primary risk management objectives are: (a) to support the Board as it carries out its risk oversight responsibilities; (b) to support members of senior management in achieving the Company's strategic objectives and priorities by maintaining and enhancing our risk framework; and (c) to promote a strong risk culture, which emphasizes each team member's accountability for appropriate risk management. Key elements of our risk program include:

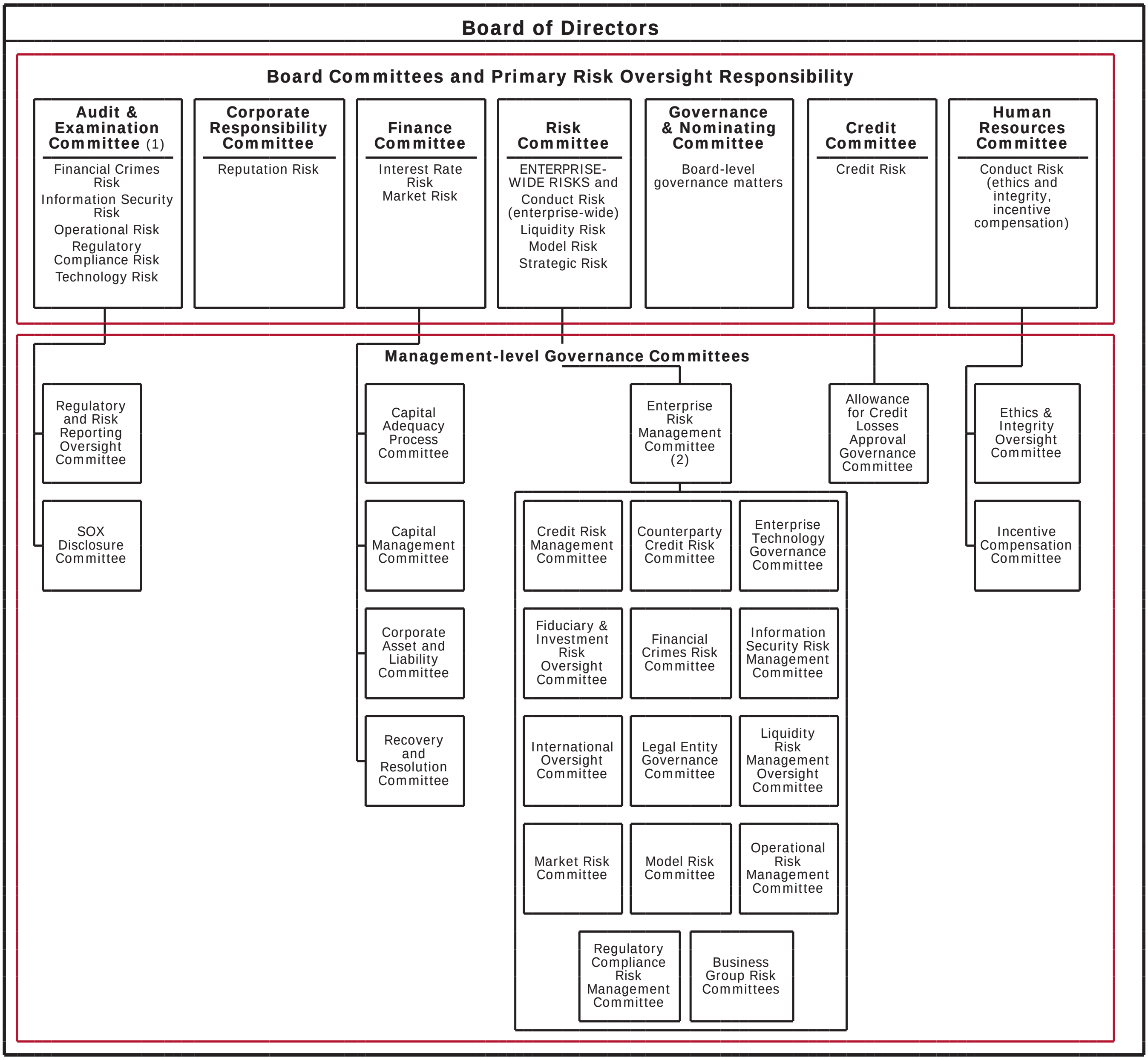
- Cultivating a **strong risk culture**, which emphasizes each team member's accountability for appropriate risk management and the Company's bias for conservatism through which we strive to maintain a conservative financial position measured by satisfactory asset quality, capital levels, funding sources, and diversity of revenues.
- Defining and communicating across the Company an **enterprise-wide statement of risk appetite** which serves to guide business and risk leaders as they manage risk on a daily basis. The enterprise-wide statement of risk appetite describes the nature and magnitude of risk that Wells Fargo is willing to assume in pursuit of its strategic and business objectives.
- Maintaining a **risk management governance structure,** including escalation protocols and a management-level committee structure, that enables the comprehensive oversight of the Company's risk program and the effective and efficient escalation of risk issues to the appropriate level of the Company for information and decision-making.
- Designing **risk frameworks, programs, policies, standards, procedures, controls, processes, and practices** that are effective and aligned, and facilitate the active and timely management of current and emerging risks across the Company.
- Structuring an **effective and independent Corporate Risk function** whose primary responsibilities include: (a) establishing and maintaining an effective risk framework that supports the timely identification and escalation of risks, (b) maintaining an independent and comprehensive perspective on the Company's current and emerging risks, (c) independently opining on the strategy and performance of the Company's risk taking activities, (d) credibly challenging the intended business and risk management actions of Wells Fargo's first-line of defense, and (e) reviewing risk management programs and practices across the Company to confirm appropriate coordination and consistency in the application of effective risk management approaches.
- Maintaining an **independent internal audit function** that is primarily responsible for adopting a systematic, disciplined approach to evaluating the effectiveness of risk management, control and governance processes and activities as well as evaluating risk framework adherence to relevant regulatory guidelines and appropriateness for Wells Fargo's size and risk profile.

The Board and the management-level Operating Committee (composed of direct reports to the CEO and President, including the Chief Risk Officer and Chief Auditor who report to the CEO administratively, and to their respective Board committees functionally) have overall and ultimate responsibility to provide oversight for our three lines of defense and the risks we take, and carry out their oversight through governance committees with specific risk management responsibilities described below.

Board and Management-level Committee Structure

Wells Fargo's Board and management-level governance committee structure is designed to ensure that key risks are considered and, if necessary, decided upon at the appropriate level of the Company and by the appropriate mix of executives. Accordingly, the structure is composed of defined escalation and reporting paths from business groups to Corporate Risk and, ultimately, to the Board level as appropriate. Each Board and management-level governance committee has defined authorities and responsibilities for considering a specific set of risks, as outlined in each of their charters. Our Board and management-level governance committee structure, and their primary risk oversight responsibilities, is presented in Table 16.

Table 16: Board and Management-level Governance Committee Structure



(1) The Audit & Examination Committee additionally oversees the internal audit function, external auditor performance, and the disclosure framework for financial and risk reports prepared for the Board, management, and bank regulatory agencies.
(2) Certain committees that report to the Enterprise Risk Management Committee have dual escalation and informational reporting paths to Board-level committees.

Board Oversight of Risk

The business and affairs of the Company are managed under the direction of the Board, whose responsibilities include overseeing the Company's risk management structure. The Board carries out its risk oversight responsibilities directly and through the work of its seven standing committees, which all report to the full Board. Each Board committee works closely with management to understand and oversee the Company's key risk exposures. Allocating risk responsibilities among each Board committee increases the overall amount of attention devoted to risk management.

The Risk Committee serves as a focal point for oversight of enterprise-wide risks. In this role, the Risk Committee supports and assists the Board's other standing committees which oversee specific risk matters, as highlighted in Table 16. The Risk Committee includes the chairs of each of the Board's other standing committees so that it does not duplicate the risk oversight efforts of other Board committees and to provide it with a comprehensive perspective on risk across the Company and across all individual risk types.

The Risk Committee additionally provides oversight of the Company's Corporate Risk function and plays an active role in approving and overseeing the Company's enterprise-wide risk management framework established by management to manage risk, and the functional framework and oversight policies established by management for various categories of risk. The Risk Committee and the full Board review and approve the enterprise statement of risk appetite annually, and the Risk Committee also actively monitors the risk profile relative to the approved risk appetite.

The full Board receives reports at each of its meetings from the Board committee chairs about committee activities, including risk oversight matters, and receives a quarterly report from the management-level Enterprise Risk Management Committee regarding current or emerging risk matters.

Management Oversight of Risk

In addition to the Board committees that oversee the Company's risk management framework, the Company has established several management-level governance committees to support Wells Fargo leaders in carrying out their risk management responsibilities. Each risk-focused governance committee has a defined set of authorities and responsibilities specific to one or more risk types. The risk governance committee structure is designed so that significant risks are considered and, if necessary, decided upon at the appropriate level of the Company and by the appropriate mix of executives.

The Enterprise Risk Management Committee, chaired by the Company's Chief Risk Officer, oversees the management of all risk types across the Company, and additionally provides primary oversight for conduct risk, reputation risk, and strategic risk. The Enterprise Risk Management Committee reports to the Board's Risk Committee, and serves as the focal point for risk governance and oversight at the management level.

Corporate Risk develops our enterprise statement of risk appetite in the context of our risk management framework described above. As part of Wells Fargo's risk appetite, we maintain metrics along with associated objectives to measure and monitor the amount of risk that the Company is prepared to take. Actual results of these metrics are reported to the Enterprise Risk Management Committee on a quarterly basis as well as to the Board's Risk Committee. Our operating segments also have business-specific risk appetite statements based on the enterprise statement of risk appetite. The metrics included in the operating segment statements are harmonized with the enterprise level metrics to ensure consistency where appropriate. Business lines also maintain metrics and qualitative statements that are unique to their line of business. This allows for monitoring of risk and definition of risk appetite deeper within the organization.

As outlined in Table 16, a number of management-level governance committees that are responsible for matters specific to an individual risk type report into the Enterprise Risk Management Committee. Certain of these governance committees have dual escalation and/or informational reporting paths to the Board committee primarily responsible for oversight of the specific risk type.

While the Enterprise Risk Management Committee and the committees that report to it serve as the focal point for the management of enterprise-wide risk matters, the management of specific risk types is supported by additional management-level governance committees, which all report to at least one of the Board's standing committees.

The Company's management-level governance committees collectively help management facilitate enterprise-wide understanding and monitoring of risks and challenges faced by the Company.

The Corporate Risk organization, which is the Company's primary second-line of defense, is headed by the Company's Chief Risk Officer who, among other things, is responsible for setting the strategic direction and driving the execution of Wells Fargo's risk management activities.

The Chief Risk Officer, as well as the Chief Risk Officer's direct reports, work closely with the Board's committees and frequently provide reports and updates to the committees and the committee chairs on risk matters during and outside of regular committee meetings, as appropriate.

Conduct Risk Management

Our Board has enhanced its oversight of conduct risk to oversee the alignment of team member conduct to the Company's risk appetite (which the Board approves annually) and culture as reflected in our *Vision and Values* and Code of Ethics and Business Conduct. The Board's Risk Committee has primary oversight responsibility for enterprise-wide conduct risk, while certain other Board committees have primary oversight responsibility for specific components of conduct risk. For example, the conduct risk oversight responsibilities of the Board's Human Resources Committee were recently expanded to include the Company's human capital management, enterprise-wide culture, the Global Ethics & Integrity program (including the Company's Code of Ethics and Business Conduct), and expanded oversight of our company-wide incentive compensation risk management program.

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

In addition, the Company has created an Office of Ethics, Oversight and Integrity to establish, maintain, and manage an enterprise-wide conduct risk framework designed to identify and assess, control and mitigate, and monitor and report on conduct risk to which the Company is exposed. The office, which reports to our Chief Risk Officer and has an informational reporting path to the Board's Risk Committee, is responsible for fostering and promoting an enterprise-wide culture of prudent conduct risk management and compliance with internal directives, rules, regulations, and regulatory expectations throughout the Company and to provide assurance that the Company's internal operations and its treatment of customers and other external stakeholders are safe and sound, fair, and ethical.

Operational Risk Management

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

The Board's Audit & Examination Committee has primary oversight responsibility for all aspects of operational risk. In this capacity, in addition to the Board's Risk Committee, it reviews and approves the operational risk management framework and significant supporting operational risk policies and programs, including the Company's business continuity, financial crimes, information security, privacy, regulatory compliance, technology, and third-party risk management policies and programs. In addition, it periodically reviews updates from management on the overall state of operational risk, including all related programs and risk types. To further enhance Board-level oversight and avoid duplication, the Audit & Examination Committee meets periodically with the Board's Risk Committee to discuss, among other things, operational risk, information security risk, regulatory compliance risk, and technology risk.

As presented in Table 16, at the management level, several committees have primary oversight responsibility for key elements of operational risk. Wells Fargo has expanded its management-level operational risk committee to provide an enterprise-wide and comprehensive view of all aspects of operational risk, across all relevant risk categories and programs. This expanded committee reports to the Enterprise Risk Management Committee, and existing management-level committees with primary oversight responsibility for key elements of operational risk report to it while maintaining relevant dual escalation and informational reporting paths to Board-level committees.

Information security is a significant operational risk for financial institutions such as Wells Fargo, and includes the risk of losses resulting from cyber attacks. Wells Fargo and other financial institutions continue to be the target of various evolving and adaptive cyber attacks, including malware and denial-of-service, as part of an effort to disrupt the operations of financial institutions, potentially test their cybersecurity capabilities, or obtain confidential, proprietary or other information. Cyber attacks have also focused on targeting the infrastructure of the internet, causing the widespread unavailability of websites and degrading website performance. Wells Fargo has not experienced any material losses relating to these or other cyber attacks. Addressing cybersecurity risks is a priority for Wells Fargo, and we continue to develop and enhance our controls, processes and systems in order to protect our networks, computers, software and data from attack, damage or unauthorized access. We are also proactively involved in industry cybersecurity efforts and working with other parties, including our third-party service providers and governmental agencies, to continue to enhance defenses and improve resiliency to cybersecurity threats. See the "Risk Factors" section in this Report for additional information regarding the risks associated with a failure or breach of our operational or security systems or infrastructure, including as a result of cyber attacks.

Credit Risk Management

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

Table 17 presents our total loans outstanding by portfolio segment and class of financing receivable.

Table 17: Total Loans Outstanding by Portfolio Segment and Class of Financing Receivable

(in millions)	Dec 31, 2016	Dec 31, 2015
Commercial:		
Commercial and industrial	$ 330,840	299,892
Real estate mortgage	132,491	122,160
Real estate construction	23,916	22,164
Lease financing	19,289	12,367
Total commercial	506,536	456,583
Consumer:		
Real estate 1-4 family first mortgage	275,579	273,869
Real estate 1-4 family junior lien mortgage	46,237	53,004
Credit card	36,700	34,039
Automobile	62,286	59,966
Other revolving credit and installment	40,266	39,098
Total consumer	461,068	459,976
Total loans	$ 967,604	916,559

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

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

Our credit risk management oversight process is governed centrally, but provides for decentralized management and accountability by our lines of business. Our overall credit process includes comprehensive credit policies, disciplined credit underwriting, frequent and detailed risk measurement and modeling, extensive credit training programs, and a continual loan review and audit process.

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

Credit Quality Overview Credit quality remained stable in 2016, as our loss rate remained low at 0.37% of average total loans. We continued to benefit from improvements in the performance of our residential real estate portfolio, which was partially offset by losses in our oil and gas portfolio. In particular:

- Nonaccrual loans were $10.4 billion at December 31, 2016, down from $11.4 billion at December 31, 2015. Although commercial nonaccrual loans increased to $4.1 billion at December 31, 2016, compared with $2.4 billion at December 31, 2015, consumer nonaccrual loans declined to $6.3 billion at December 31, 2016, compared with $9.0 billion at December 31, 2015. The decline in consumer nonaccrual loans reflected an improved housing market and nonaccrual loan sales, while the increase in commercial nonaccrual loans was predominantly driven by our oil and gas portfolio. Nonaccrual loans represented 1.07% of total loans at December 31, 2016, compared with 1.24% at December 31, 2015.
- Net charge-offs as a percentage of average total loans increased to 0.37% in 2016, compared with 0.33% in 2015. Net charge-offs as a percentage of our average commercial and consumer portfolios were 0.22% and 0.53% in 2016, respectively, compared with 0.09% and 0.55%, respectively, in 2015.
- Loans that are not government insured/guaranteed and 90 days or more past due and still accruing were $64 million and $908 million in our commercial and consumer portfolios, respectively, at December 31, 2016, compared with $114 million and $867 million at December 31, 2015.
- Our provision for credit losses was $3.8 billion during 2016, compared with $2.4 billion in 2015.
- The allowance for credit losses remained stable at $12.5 billion, or 1.30% of total loans, at December 31, 2016, compared with $12.5 billion, or 1.37%, at December 31, 2015.

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

PURCHASED CREDIT-IMPAIRED (PCI) LOANS Loans acquired with evidence of credit deterioration since their origination and where it is probable that we will not collect all contractually required principal and interest payments are PCI loans. Substantially all of our PCI loans were acquired in the Wachovia acquisition on December 31, 2008. PCI loans are recorded at fair value at the date of acquisition, and the historical allowance for credit losses related to these loans is not carried over. The carrying value of PCI loans at December 31, 2016 totaled $16.7 billion, which included $172 million from the GE Capital business acquisitions, compared with $20.0 billion at December 31, 2015 and $58.8 billion at December 31, 2008. The decrease from December 31, 2015, was due in part to higher prepayment trends observed in our Pick-a-Pay PCI portfolio as home price appreciation and the resulting reduction in loan to collateral value ratios enabled more borrowers to qualify for refinancing options. PCI loans are considered to be accruing due to the existence of the accretable yield, which represents the cash expected to be collected in excess of their carrying value, and not based on consideration given to contractual interest payments. The accretable yield at December 31, 2016, was $11.2 billion.

A nonaccretable difference is established for PCI loans to absorb losses expected on the contractual amounts of those loans in excess of the fair value recorded at the date of acquisition. Amounts absorbed by the nonaccretable difference do not affect the income statement or the allowance for credit losses. Since December 31, 2008, we have released $12.9 billion in nonaccretable difference, including $11.0 billion transferred from the nonaccretable difference to the accretable yield due to decreases in our initial estimate of loss on contractual amounts and $1.9 billion released to income through loan resolutions. Also, we have provided $1.7 billion for losses on certain PCI loans or pools of PCI loans that have had credit-related decreases to cash flows expected to be collected. The net result is an $11.2 billion reduction from December 31, 2008, through December 31, 2016, in our initial projected losses of $41.0 billion on all PCI loans acquired in the Wachovia acquisition. At December 31, 2016, $954 million in nonaccretable difference, which included $93 million from the GE Capital business acquisitions, remained to absorb losses on PCI loans.

For additional information on PCI loans, see the "Risk Management – Credit Risk Management – Real Estate 1-4 Family First and Junior Lien Mortgage Loans – Pick-a-Pay Portfolio" section of this Report, Note 1 (Summary of Significant Accounting Policies) 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, 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 divided between special mention, substandard, doubtful and loss categories.

The commercial and industrial loans and lease financing portfolio totaled $350.1 billion, or 36% of total loans, at December 31, 2016. The net charge-off rate for this portfolio was 0.35% in 2016 compared with 0.16% in 2015. At December 31, 2016, 0.95% of this portfolio was nonaccruing, compared with 0.44% at December 31, 2015, an increase of $1.9 billion, mostly due to the oil and gas portfolio. Also, $24.0 billion of the commercial and industrial loan and lease financing portfolio was internally classified as criticized in accordance with regulatory guidance at December 31, 2016, compared with $19.1 billion at December 31, 2015. The increase in criticized loans, which also includes the increase in nonaccrual loans, was mostly due to the loans and capital leases acquired from GE Capital.

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

Table 18 provides a breakout of commercial and industrial loans and lease financing by industry, and includes $56.4 billion of foreign loans at December 31, 2016. Foreign loans totaled $14.2 billion within the investors category, $17.6 billion within the financial institutions category and $1.7 billion within the oil and gas category.

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

We provide financial institutions with a variety of relationship focused products and services, including loans supporting short-term trade finance and working capital needs. The $17.6 billion of foreign loans in the financial institutions category were predominantly originated by our Global Financial Institutions (GFI) business.

The oil and gas loan portfolio totaled $14.8 billion, or 2% of total outstanding loans at December 31, 2016, compared with $17.4 billion, or 2% of total outstanding loans, at December 31, 2015. Unfunded loan commitments in the oil and gas loan portfolio totaled $23.0 billion at December 31, 2016. Almost half of our oil and gas loans were to businesses in the exploration and production (E&P) sector. Most of these E&P loans are secured by oil and/or gas reserves and have underlying borrowing base arrangements which include regular (typically semi-annual) "redeterminations" that consider refinements to borrowing structure and prices used to determine borrowing limits. The majority of the other oil and gas loans were to midstream companies. We proactively monitor our oil and gas loan portfolio and work with customers to address any emerging issues. Oil and gas nonaccrual loans increased to $2.4 billion at December 31, 2016, compared with $844 million at December 31, 2015 due to weaker borrower financial performance.

Table 18: Commercial and Industrial Loans and Lease Financing by Industry (1)

	December 31, 2016		
(in millions)	Nonaccrual loans	Total portfolio (2)	% of total loans
Investors	$ 7	57,912	6%
Financial institutions	13	39,066	4
Cyclical retailers	72	26,230	3
Food and beverage	85	16,511	2
Healthcare	26	16,392	2
Industrial equipment	29	14,894	2
Oil and gas	2,441	14,789	2
Real estate lessor	10	14,010	1
Technology	88	12,133	1
Transportation	132	9,588	1
Public administration	12	9,293	1
Business services	24	9,147	1
Other	392	110,164 (3)	10
Total	$ 3,331	350,129	36%

(1) Industry categories are based on the North American Industry Classification System and the amounts reported include foreign loans. See Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for a breakout of commercial foreign loans.
(2) Includes $237 million PCI loans, which are considered to be accruing due to the existence of the accretable yield and not based on consideration given to contractual interest payments.
(3) No other single industry had total loans in excess of $6.9 billion.

Risk mitigation actions, including the restructuring of repayment terms, securing collateral or guarantees, and entering into extensions, are based on a re-underwriting of the loan and our assessment of the borrower's ability to perform under the agreed-upon terms. Extension terms generally range from six to thirty-six months and may require that the borrower provide additional economic support in the form of partial repayment, or additional collateral or guarantees. In cases where the value of collateral or financial condition of the borrower is insufficient to repay our loan, we may rely upon the support of an outside repayment guarantee in providing the extension.

Our ability to seek performance under a guarantee is directly related to the guarantor's creditworthiness, capacity and willingness to perform, which is evaluated on an annual basis, or more frequently as warranted. Our evaluation is based on the most current financial information available and is focused on various key financial metrics, including net worth, leverage, and current and future liquidity. We consider the guarantor's reputation, creditworthiness, and willingness to work with us based on our analysis as well as other lenders' experience with the guarantor. Our assessment of the guarantor's credit strength is reflected in our loan risk ratings for such loans. The loan risk rating and accruing status are important factors in our allowance methodology.

In considering the accrual status of the loan, we evaluate the collateral and future cash flows as well as the anticipated support of any repayment guarantor. In many cases the strength of the guarantor provides sufficient assurance that full repayment of the loan is expected. When full and timely collection of the loan becomes uncertain, including the performance of the guarantor, we place the loan on nonaccrual status. As appropriate, we also charge the loan down in accordance with our charge-off policies, generally to the net realizable value of the collateral securing the loan, if any.

COMMERCIAL REAL ESTATE (CRE) We generally subject CRE loans to individual risk assessment using our internal borrower and collateral quality ratings. Our ratings are aligned to regulatory definitions of pass and criticized categories with criticized divided among special mention, substandard, doubtful and loss categories. The CRE portfolio, which included $8.9 billion of foreign CRE loans, totaled $156.4 billion, or 16% of total loans, at December 31, 2016, and consisted of $132.5 billion of mortgage loans and $23.9 billion of construction loans.

Table 19 summarizes CRE loans by state and property type with the related nonaccrual totals. The portfolio is diversified both geographically and by property type. The largest geographic concentrations of CRE loans are in California, New York, Texas and Florida, which combined represented 49% of the total CRE portfolio. By property type, the largest concentrations are office buildings at 28% and apartments at 16% of the portfolio. CRE nonaccrual loans totaled 0.5% of the CRE outstanding balance at December 31, 2016, compared with 0.7% at December 31, 2015. At December 31, 2016, we had $5.4 billion of criticized CRE mortgage loans, down from $6.8 billion at December 31, 2015, and $461 million of criticized CRE construction loans, down from $549 million at December 31, 2015.

At December 31, 2016, the recorded investment in PCI CRE loans totaled $440 million, down from $12.3 billion when acquired at December 31, 2008, reflecting principal payments, loan resolutions and write-downs.

Table 19: CRE Loans by State and Property Type

									December 31, 2016
	Real estate mortgage			Real estate construction			Total		
(in millions)	Nonaccrual loans	Total portfolio	(1)	Nonaccrual loans	Total portfolio	(1)	Nonaccrual loans	Total portfolio	(1)	% of total loans
By state:									
California	$ 169	37,247		2	4,563		171	41,810		4%
New York	29	10,014		—	2,476		29	12,490		1
Texas	49	9,540		1	2,255		50	11,795		1
Florida	50	8,510		1	1,829		51	10,339		1
North Carolina	45	4,121		6	866		51	4,987		1
Arizona	26	4,263		—	645		26	4,908		1
Georgia	26	3,896		1	679		27	4,575		*
Washington	25	3,503		—	797		25	4,300		*
Virginia	21	3,287		—	964		21	4,251		*
Illinois	4	3,627		—	264		4	3,891		*
Other	241	44,483		32	8,578		273	53,061	(2)	5
Total	$ 685	132,491		43	23,916		728	156,407		16%
By property:									
Office buildings	$ 179	40,077		—	2,993		179	43,070		4%
Apartments	42	15,862		—	8,921		42	24,783		3
Industrial/warehouse	102	15,361		—	1,792		102	17,153		2
Retail (excluding shopping center)	91	16,126		—	778		91	16,904		2
Hotel/motel	13	11,209		4	1,369		17	12,578		1
Shopping center	31	10,888		—	1,247		31	12,135		1
Real estate - other	91	8,212		—	225		91	8,437		1
Institutional	31	3,128		—	1,164		31	4,292		*
Agriculture	33	2,595		—	10		33	2,605		*
1-4 family structure	—	4		7	2,467		7	2,471		*
Other	72	9,029		32	2,950		104	11,979		1
Total	$ 685	132,491		43	23,916		728	156,407		16%

* Less than 1%.
(1) Includes a total of $440 million PCI loans, consisting of $383 million of real estate mortgage and $57 million of real estate construction, which are considered to be accruing due to the existence of the accretable yield and not based on consideration given to contractual interest payments.
(2) Includes 40 states; no state had loans in excess of $3.6 billion.

FOREIGN LOANS AND COUNTRY RISK EXPOSURE We classify loans for financial statement and certain regulatory purposes as foreign primarily based on whether the borrower's primary address is outside of the United States. At December 31, 2016, foreign loans totaled $65.7 billion, representing approximately 7% of our total consolidated loans outstanding, compared with $58.6 billion, or approximately 6% of total consolidated loans outstanding, at December 31, 2015. Foreign loans were approximately 3% of our consolidated total assets at December 31, 2016 and at December 31, 2015.

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 December 31, 2016, was the United Kingdom, which totaled $25.6 billion, or approximately 1% of our total assets, and included $3.9 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. Britain's vote to withdraw from the European Union (Brexit) in June 2016 did not have a material impact on our United Kingdom or other foreign exposure as of December 31, 2016. As the United Kingdom prepares for the negotiations on the terms of its exit from the European Union, we will be reviewing our capabilities in the region and, subject to any required regulatory approvals, plan to make any adjustments necessary and prudent for serving our customers. Our exposure to Canada, our second largest foreign country exposure based on our assessment of risk, totaled $18.7 billion at December 31, 2016, up $3.7 billion from December 31, 2015, predominantly due to the GE Capital business acquisitions.

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

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

Table 20: Select Country Exposures

	December 31, 2016								
	Lending (1)		Securities (2)		Derivatives and other (3)		Total exposure		
(in millions)	Sovereign	Non-sovereign	Sovereign	Non-sovereign	Sovereign	Non-sovereign	Sovereign	Non-sovereign (4)	Total
Top 20 country exposures:									
United Kingdom	$ 3,889	17,334	7	3,214	—	1,142	3,896	21,690	25,586
Canada	1	17,372	39	498	—	818	40	18,688	18,728
Cayman Islands	—	5,182	—	—	—	146	—	5,328	5,328
Germany	2,129	1,625	—	1	—	406	2,129	2,032	4,161
Ireland	—	3,873	—	169	—	116	—	4,158	4,158
Bermuda	—	2,996	—	207	—	119	—	3,322	3,322
China	—	2,387	(3)	283	2	1	(1)	2,671	2,670
India	200	2,179	—	188	—	—	200	2,367	2,567
Netherlands	—	1,899	—	452	—	104	—	2,455	2,455
Australia	—	1,480	—	831	—	48	—	2,359	2,359
Brazil	—	2,093	—	(8)	—	10	—	2,095	2,095
France	—	881	—	931	—	158	—	1,970	1,970
Guernsey	—	1,612	—	(3)	—	1	—	1,610	1,610
South Korea	—	1,440	(1)	79	1	1	—	1,520	1,520
Mexico	—	1,470	—	6	—	12	—	1,488	1,488
Switzerland	—	1,382	—	4	—	100	—	1,486	1,486
Luxembourg	—	1,227	—	152	—	22	—	1,401	1,401
Chile	—	1,259	—	5	1	3	1	1,267	1,268
Turkey	—	1,117	—	63	—	—	—	1,180	1,180
Hong Kong	1	938	—	90	22	11	23	1,039	1,062
Total top 20 country exposures	$ 6,220	69,746	42	7,162	26	3,218	6,288	80,126	86,414
Eurozone exposure:									
Eurozone countries included in Top 20 above (5)	$ 2,129	9,505	—	1,705	—	806	2,129	12,016	14,145
Belgium	—	688	—	1	—	2	—	691	691
Austria	—	654	—	1	—	—	—	655	655
Spain	—	317	—	60	—	7	—	384	384
Other Eurozone countries (6)	21	254	26	26	—	13	47	293	340
Total Eurozone exposure	$ 2,150	11,418	26	1,793	—	828	2,176	14,039	16,215

(1) Lending exposure includes funded loans and unfunded commitments, leveraged leases, and money market placements presented on a gross basis prior to the deduction of impairment allowance and collateral received under the terms of the credit agreements. For the countries listed above, includes $15 million in PCI loans, predominantly to customers in Germany and the Netherlands, and $915 million in defeased leases secured primarily by U.S. Treasury and government agency securities.
(2) Represents exposure on debt and equity securities of foreign issuers. Long and short positions are netted and net short positions are reflected as negative exposure.
(3) Represents counterparty exposure on foreign exchange and derivative contracts, and securities resale and lending agreements. This exposure is presented net of counterparty netting adjustments and reduced by the amount of cash collateral. It includes credit default swaps (CDS) predominantly used for market making activities in the U.S. and London based trading businesses, which sometimes results in selling and purchasing protection on the identical reference entity. 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 December 31, 2016, the gross notional amount of our CDS sold that reference assets in the Top 20 or Eurozone countries was $2.1 billion, which was offset by the notional amount of CDS purchased of $2.4 billion. 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 $37.2 billion exposure to financial institutions and $44.9 billion to non-financial corporations at December 31, 2016.
(5) Consists of exposure to Germany, Ireland, Netherlands, France and Luxembourg included in Top 20.
(6) Includes non-sovereign exposure to Italy, Portugal, and Greece in the amount of $158 million, $26 million and $1 million, respectively. We had no sovereign debt exposure to these countries at December 31, 2016.

REAL ESTATE 1-4 FAMILY FIRST AND JUNIOR LIEN MORTGAGE LOANS Our real estate 1-4 family first and junior lien mortgage loans, as presented in Table 21, include loans we have made to customers and retained as part of our asset/liability management strategy, the Pick-a-Pay portfolio acquired from Wachovia which is discussed later in this Report and other purchased loans, and loans included on our balance sheet as a result of consolidation of variable interest entities (VIEs).

Table 21: Real Estate 1-4 Family First and Junior Lien Mortgage Loans

	December 31, 2016		December 31, 2015	
(in millions)	**Balance**	**% of portfolio**	Balance	% of portfolio
Real estate 1-4 family first mortgage	**$ 275,579**	**86%**	$ 273,869	84%
Real estate 1-4 family junior lien mortgage	**46,237**	**14**	53,004	16
Total real estate 1-4 family mortgage loans	**$ 321,816**	**100%**	$ 326,873	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 7% and 9% of total loans at December 31, 2016 and 2015, respectively. We believe we have manageable adjustable-rate mortgage (ARM) reset risk across our owned mortgage loan portfolios. We do not offer option ARM products, nor do we offer variable-rate mortgage products with fixed payment amounts, commonly referred to within the financial services industry as negative amortizing mortgage loans. The option ARMs we do have are included in the Pick-a-Pay portfolio which was acquired from Wachovia. Since our acquisition of the Pick-a-Pay loan portfolio at the end of 2008, the option payment portion of the portfolio has reduced from

86% to 37% at December 31, 2016, as a result of our modification and loss mitigation efforts. For more information, see the "Pick-a-Pay Portfolio" section in this Report.

We continue to modify real estate 1-4 family mortgage loans to assist homeowners and other borrowers experiencing financial difficulties. Loans are generally underwritten at the time of the modification in accordance with underwriting guidelines established for governmental and proprietary loan modification programs. Under these programs, we may provide concessions such as interest rate reductions, forbearance of principal, and in some cases, principal forgiveness. These programs generally include trial payment periods of three to four months, and after successful completion and compliance with terms during this period, the loan is permanently modified. Loans included under these programs are accounted for as troubled debt restructurings (TDRs) at the start of a trial period or at the time of permanent modification, if no trial period is used. See the "Critical Accounting Policies – Allowance for Credit Losses" section in this Report for discussion on how we determine the allowance attributable to our modified residential real estate portfolios.

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 2016 on the non-PCI mortgage portfolio. Loans 30 days or more delinquent at December 31, 2016, totaled $5.9 billion, or 2% of total non-PCI mortgages, compared with $8.3 billion, or 3%, at December 31, 2015. Loans with FICO scores lower than 640 totaled $16.6 billion, or 5% of total non-PCI mortgages at December 31, 2016, compared with $21.1 billion, or 7%, at December 31, 2015. Mortgages with a LTV/CLTV greater than 100% totaled $8.9 billion at December 31, 2016, or 3% of total non-PCI mortgages, compared with $15.1 billion, or 5%, at December 31, 2015. Information regarding credit quality indicators, including PCI 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 22. Our real estate 1-4 family mortgage loans (including PCI loans) to borrowers in California represented approximately 12% of total loans at December 31, 2016, located mostly within the larger metropolitan areas, with no single California metropolitan area consisting of more than 5% of total loans. We monitor changes in real estate values and underlying economic or market conditions for all geographic areas of our real estate 1-4 family mortgage portfolio as part of our credit risk management process. Our underwriting and periodic review of loans secured by residential real estate collateral includes appraisals or estimates from automated valuation models (AVMs) to support property values. AVMs are computer-based tools used to estimate the market value of homes. AVMs are a lower-cost alternative to appraisals and support valuations of large numbers of properties in a short period of time using market comparables and price trends for local market areas. The primary risk associated with the use of AVMs is that the value of an individual property may vary significantly from the average for the market area. We have processes to periodically validate AVMs and specific risk management guidelines addressing the circumstances when AVMs may be used. AVMs are generally used in underwriting to support property values on loan originations only where the loan amount is under $250,000. We generally require property visitation appraisals by a qualified independent appraiser for larger residential property loans. 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.

Table 22: Real Estate 1-4 Family First and Junior Lien Mortgage Loans by State

	December 31, 2016			
(in millions)	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	$ 94,015	12,539	106,554	11%
New York	23,815	2,192	26,007	2
Florida	13,737	4,252	17,989	2
New Jersey	12,669	4,031	16,700	2
Virginia	7,532	2,696	10,228	1
Texas	8,584	800	9,384	1
Washington	7,852	1,041	8,893	1
Pennsylvania	5,762	2,494	8,256	1
North Carolina	6,079	2,154	8,233	1
Other (1)	63,911	14,002	77,913	8
Government insured/guaranteed loans (2)	15,605	—	15,605	1
Real estate 1-4 family loans (excluding PCI)	259,561	46,201	305,762	31
Real estate 1-4 family PCI loans (3)	16,018	36	16,054	2
Total	$ 275,579	46,237	321,816	33%

(1) Consists of 41 states; no state had loans in excess of $7.2 billion.
(2) Represents loans whose repayments are predominantly insured by the Federal Housing Administration (FHA) or guaranteed by the Department of Veterans Affairs (VA).
(3) Includes $11.1 billion in real estate 1-4 family mortgage PCI loans in California.

First Lien Mortgage Portfolio Our total real estate 1-4 family first lien mortgage portfolio increased $1.7 billion in 2016, as we retained $58.9 billion in non-conforming originations, consisting of loans that exceed conventional conforming loan amount limits established by federal government-sponsored entities (GSEs).

The credit performance associated with our real estate 1-4 family first lien mortgage portfolio continued to improve in 2016, as measured through net charge-offs and nonaccrual loans. Net charge-offs as a percentage of average real estate 1-4 family first lien mortgage loans improved to 0.03% in 2016, compared with 0.10% in 2015. Nonaccrual loans were $5.0 billion at December 31, 2016, compared with $7.3 billion at December 31, 2015. Improvement in the credit performance was driven by an improving housing environment. Real estate 1-4 family first lien mortgage loans originated after 2008, which generally utilized tighter underwriting standards, have resulted in minimal losses to date and were approximately 73% of our total real estate 1-4 family first lien mortgage portfolio as of December 31, 2016.

Table 23 shows certain delinquency and loss information for the first lien mortgage portfolio and lists the top five states by outstanding balance.

Table 23: First Lien Mortgage Portfolio Performance

	Outstanding balance		% of loans 30 days or more past due		Loss (recovery) rate	
	December 31,		December 31,		Year ended December 31,	
(in millions)	**2016**	2015	**2016**	2015	**2016**	2015
California	**$ 94,015**	88,367	**1.21%**	1.87	**(0.08)**	(0.03)
New York	**23,815**	20,962	**1.97**	3.07	**0.08**	0.11
Florida	**13,737**	14,068	**3.62**	5.14	**(0.09)**	0.15
New Jersey	**12,669**	11,825	**3.66**	5.68	**0.36**	0.31
Texas	**8,584**	8,153	**2.19**	2.80	**0.06**	0.02
Other	**91,136**	88,951	**2.51**	3.72	**0.11**	0.24
Total	**243,956**	232,326	**2.07**	3.11	**0.03**	0.12
Government insured/guaranteed loans	**15,605**	22,353				
PCI	**16,018**	19,190				
Total first lien mortgages	**$ 275,579**	273,869				

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

The Pick-a-Pay portfolio includes loans that offer payment options (Pick-a-Pay option payment loans), and also includes loans that were originated without the option payment feature, loans that no longer offer the option feature as a result of our modification efforts since the acquisition, and loans where the customer voluntarily converted to a fixed-rate product. The Pick-a-Pay portfolio is included in the consumer real estate 1-4 family first mortgage class of loans throughout this Report. Table 24 provides balances by types of loans as of December 31, 2016, as a result of modification efforts, compared to the types of loans included in the portfolio at acquisition. Total adjusted unpaid principal balance of PCI Pick-a-Pay loans was $20.5 billion at December 31, 2016, compared with $61.0 billion at acquisition. Due to loan modification and loss mitigation efforts, the adjusted unpaid principal balance of option payment PCI loans has declined to 14% of the total Pick-a-Pay portfolio at December 31, 2016, compared with 51% at acquisition.

Table 24: Pick-a-Pay Portfolio – Comparison to Acquisition Date

	December 31, 2016		December 31, 2008	
(in millions)	Adjusted unpaid principal balance (1)	% of total	Adjusted unpaid principal balance (1)	% of total
Option payment loans	$ 13,618	37%	$ 99,937	86%
Non-option payment adjustable-rate and fixed-rate loans	4,630	13	15,763	14
Full-term loan modifications	18,598	50	—	—
Total adjusted unpaid principal balance	$ 36,846	100%	$ 115,700	100%
Total carrying value	$ 32,292		$ 95,315	

(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.

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). Total interest deferred due to negative amortization on Pick-a-Pay option payment loans was $161 million at December 31, 2016, and $280 million at December 31, 2015. Approximately 99% of the Pick-a-Pay option payment loan customers making a minimum payment in December 2016 did not defer interest, compared with 97% in December 2015.

Deferral of interest on a Pick-a-Pay option payment loan may continue as long as the loan balance remains below a pre-defined principal cap, which is based on the percentage that the current loan balance represents to the original loan balance. Substantially all of the Pick-a-Pay option payment loans have a cap of 125% of the original loan balance. The majority of the Pick-a-Pay option payment loans on which there is a deferred interest balance re-amortize (the monthly payment amount is "recast") on the earlier of the date when the loan balance reaches its principal cap, or generally the 10-year anniversary of the loan. As of December 31, 2016, $4.4 billion of non-PCI and $1.9 billion of PCI Pick-a-Pay option payment loans had not reached their initial recast date, which is scheduled to occur during 2017 or 2018. After a recast, the customers' new payment terms are adjusted to the amount necessary to repay the balance over the remainder of the original loan term. Adjustable rate option arm loans can still defer interest after the initial recast date if interest rates rise, and will continue to recast every five years thereafter until the loan reaches its maturity date.

Generally, Pick-a-Pay option payment loans have an annual 7.5% maximum payment increase unless a recast event occurs. If a recast occurs it may cause the payment increase to exceed 7.5%, which can affect some borrowers' ability to repay the outstanding balance. The amount of Pick-a-Pay option payment loans we would expect to recast and exceed the 7.5% payment increase through 2019 is $889 million ($780 million for 2017) assuming a flat rate environment. Recast risk associated with our Pick-a-Pay PCI portfolio is covered through our nonaccretable difference.

As a result of our loan modification and loss mitigation efforts, Pick-a-Pay option payment loans have been reduced to $13.6 billion at December 31, 2016, from $99.9 billion at acquisition.

Table 25 reflects the geographic distribution of the Pick-a-Pay portfolio broken out between PCI loans and all other loans. The LTV ratio is a useful metric in evaluating future real estate 1-4 family first mortgage loan performance, including potential charge-offs. Because PCI loans were initially recorded at fair value, including write-downs for expected credit losses, the ratio of the carrying value to the current collateral value will be lower compared with the LTV based on the adjusted unpaid principal balance. For informational purposes, we have included both ratios for PCI loans in the following table.

Table 25: Pick-a-Pay Portfolio (1)

	December 31, 2016					
	PCI loans				All other loans	
(in millions)	Adjusted unpaid principal balance (2)	Current LTV ratio (3)	Carrying value (4)	Ratio of carrying value to current value (5)	Carrying value (4)	Ratio of carrying value to current value (5)
California	$ 14,219	65%	$ 11,070	50%	$ 7,871	47%
Florida	1,648	72	1,216	52	1,651	58
New Jersey	663	77	470	54	1,090	65
New York	483	72	408	56	542	61
Texas	175	50	154	44	654	39
Other states	3,323	72	2,585	55	4,581	59
Total Pick-a-Pay loans	$ 20,511	67	$ 15,903	51	$ 16,389	53

(1) The individual states shown in this table represent the top five states based on the total net carrying value of the Pick-a-Pay loans at the beginning of 2016.
(2) Adjusted unpaid principal balance includes write-downs taken on loans where severe delinquency (normally 180 days) or other indications of severe borrower financial stress exist that indicate there will be a loss of contractually due amounts upon final resolution of the loan.
(3) The current LTV ratio is calculated as the adjusted unpaid principal balance divided by the collateral value. Collateral values are generally determined using automated valuation models (AVM) and are updated quarterly. AVMs are computer-based tools used to estimate market values of homes based on processing large volumes of market data including market comparables and price trends for local market areas.
(4) Carrying value, which does not reflect the allowance for loan losses, includes remaining purchase accounting adjustments, which, for PCI loans may include the nonaccretable difference and the accretable yield and, for all other loans, an adjustment to mark the loans to a market yield at date of merger less any subsequent charge-offs.
(5) The ratio of carrying value to current value is calculated as the carrying value divided by the collateral value.

Since the Wachovia acquisition, we have completed over 136,000 proprietary and Home Affordability Modification Program (HAMP) Pick-a-Pay loan modifications, including over 3,000 modifications in 2016. Pick-a-Pay loan modifications have resulted in over $6.1 billion of principal forgiveness. We have also provided interest rate reductions and loan term extensions of up to 40 years to enable sustainable homeownership for our Pick-a-Pay customers. As a result of these loss mitigation programs, approximately 71% of our Pick-a-Pay PCI adjusted unpaid principal balance as of December 31, 2016 has been modified.

The predominant portion of our PCI loans is included in the Pick-a-Pay portfolio. We regularly evaluate our estimates of cash flows expected to be collected on our PCI loans. Our cash flows expected to be collected have been favorably affected over time by lower expected defaults and losses as a result of observed and forecasted economic strengthening, particularly in housing prices, and our loan modification efforts. When we periodically update our cash flow estimates we have historically expected that the credit-stressed borrower characteristics and distressed collateral values associated with our Pick-a-Pay PCI loans would limit the ability of these borrowers to prepay their loans, thus increasing the future expected weighted-average life of the portfolio since acquisition. However, a higher prepayment trend has emerged in our Pick-a-Pay PCI loans portfolio, which we attribute to the benefits of home price appreciation that has resulted in loan (unpaid principal balance) to value ratios reaching an important industry refinancing inflection point of below 80%. As a result, we have experienced an increased level of borrowers qualifying for products to refinance their loans which may not have previously been available to them. Therefore, during third quarter 2016, we revised our Pick-a-Pay PCI loan cash flow estimates to reflect our expectation that the modified portion of the portfolio will have significantly higher prepayments over the remainder of its life. The recent reductions in loan to value ratios and projections of sustained higher housing prices have reduced our loss estimates for this portfolio. The significant increase in expected prepayments lowered our estimated weighted-average life to approximately 7.4 years at December 31, 2016, from 12.0 years at December 31, 2015. Also, the accretable yield balance declined $5.0 billion during 2016, driven by realized accretion of $1.3 billion and a $4.9 billion reduction in expected cash flows resulting from the shorter estimated weighted-average life, partially offset by a transfer of $1.2 billion from nonaccretable difference to accretable yield due to the reduction in expected losses. Because the $1.2 billion transfer from nonaccretable difference to accretable yield resulted in a high amount of accretable yield relative to the shortened estimated weighted-average life, the accretable yield percentage was 8.22% at December 31, 2016, up from 6.21% at December 31, 2015.

Since acquisition, due to better than expected performance observed on the PCI portion of the Pick-a-Pay portfolio compared with the original acquisition estimates, we have reclassified $8.3 billion from the nonaccretable difference to the accretable yield. Fluctuations in the accretable yield are driven by changes in interest rate indices for variable rate PCI loans, prepayment assumptions, and expected principal and interest payments over the estimated life of the portfolio, which will be affected by the pace and degree of improvements in the U.S. economy and housing markets and projected lifetime performance resulting from loan modification activity. Changes in the projected timing of cash flow events, including loan liquidations, modifications and short sales, can also affect the accretable yield and the estimated weighted-average life of the portfolio.

For further information on the judgment involved in estimating expected cash flows for PCI loans, see the "Critical Accounting Policies – Purchased Credit-Impaired Loans" section and Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

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. Substantially all of our junior lien loan products are amortizing payment loans with fixed interest rates and repayment periods between five to 30 years.

We continuously monitor the credit performance of our junior lien mortgage portfolio for trends and factors that influence the frequency and severity of loss. We have observed that the severity of loss for junior lien mortgages is high and generally not affected by whether we or a third party own or service the related first lien mortgage, but the frequency of delinquency is typically lower when we own or service the first lien mortgage. In general, we have limited information available on the delinquency status of the third party owned or serviced senior lien where we also hold a junior lien. To capture this inherent loss content, our allowance process for junior lien mortgages considers the relative difference in loss experience for junior lien mortgages behind first lien mortgage loans we own or service, compared with those behind first lien mortgage loans owned or serviced by third parties. In addition, our allowance process for junior lien mortgages that are current, but are in their revolving period, considers the inherent loss where the borrower is delinquent on the corresponding first lien mortgage loans.

Table 26 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, 2015, predominantly reflects loan paydowns. As of December 31, 2016, 11% of the outstanding balance of the junior lien mortgage portfolio was associated with loans that had a combined loan to value (CLTV) ratio in excess of 100%. Of those junior lien mortgages with a CLTV ratio in excess of 100%, 2.72% were 30 days or more past due. CLTV means the ratio of the total loan balance of first lien mortgages and junior lien mortgages (including unused line amounts for credit line products) to property collateral value. The unsecured portion (the outstanding amount that was in excess of the most recent property collateral value) of the outstanding balances of these loans totaled 4% of the junior lien mortgage portfolio at December 31, 2016. 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 26: Junior Lien Mortgage Portfolio Performance

	Outstanding balance		% of loans 30 days or more past due		Loss rate	
	December 31,		December 31,		Year ended December 31,	
(in millions)	**2016**	2015	**2016**	2015	**2016**	2015
California	**$ 12,539**	14,554	**1.86%**	2.03	**0.01**	0.25
Florida	**4,252**	4,823	**2.17**	2.45	**0.65**	0.87
New Jersey	**4,031**	4,462	**2.79**	3.06	**1.06**	1.08
Virginia	**2,696**	2,991	**1.97**	2.05	**0.72**	0.83
Pennsylvania	**2,494**	2,748	**2.07**	2.35	**0.72**	0.90
Other	**20,189**	23,357	**2.09**	2.24	**0.52**	0.77
Total	**46,201**	52,935	**2.09**	2.27	**0.46**	0.67
PCI	**36**	69				
Total junior lien mortgages	**$ 46,237**	53,004				

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

On a monthly basis, we monitor the payment characteristics of borrowers in our junior lien portfolio. In December 2016, approximately 48% of these borrowers paid only the minimum amount due and approximately 47% 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 34% paid only the minimum amount due and approximately 62% paid more than the minimum amount due.

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

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

Table 27 reflects the outstanding balance of our portfolio of junior lien mortgages, including lines and loans, and senior lien lines segregated into scheduled end of draw or end of term periods and products that are currently amortizing, or in balloon repayment status. It excludes real estate 1-4 family first lien line reverse mortgages, which total $291.6 million, because they are predominantly insured by the FHA, and it excludes PCI loans, which total $60 million, because their losses were generally reflected in our nonaccretable difference established at the date of acquisition.

Table 27: Junior Lien Mortgage Line and Loan and Senior Lien Mortgage Line Portfolios Payment Schedule

				Scheduled end of draw/term				
	Outstanding balance						2022 and	
(in millions)	December 31, 2016	2017	2018	2019	2020	2021	thereafter (1)	Amortizing
Junior lien lines and loans	$ 46,201	3,772	2,270	936	838	1,624	23,551	13,210
First lien lines	15,211	568	720	340	315	680	10,540	2,048
Total (2)(3)	$ 61,412	4,340	2,990	1,276	1,153	2,304	34,091	15,258
% of portfolios	100%	7	5	2	2	4	55	25

(1) Substantially all lines and loans are scheduled to convert to amortizing loans by the end of 2026, with annual scheduled amounts through that date ranging from $4.8 billion to $7.9 billion and averaging $6.8 billion per year.

(2) Junior and first lien lines are mostly interest-only during their draw period. The unfunded credit commitments for junior and first lien lines totaled $65.9 billion at December 31, 2016.

(3) Includes scheduled end-of-term balloon payments for lines and loans totaling $251 million, $328 million, $329 million, $353 million, $560 million and $349 million for 2017, 2018, 2019, 2020, 2021, and 2022 and thereafter, respectively. Amortizing lines and loans include $117 million of end-of-term balloon payments, which are past due. At December 31, 2016, $515 million, or 4% of outstanding lines of credit that are amortizing, are 30 days or more past due compared to $718 million or 2% for lines in their draw period.

CREDIT CARDS Our credit card portfolio totaled $36.7 billion at December 31, 2016, which represented 4% of our total outstanding loans. The net charge-off rate for our credit card portfolio was 3.08% for 2016, compared with 3.00% for 2015.

AUTOMOBILE Our automobile portfolio, predominantly composed of indirect loans, totaled $62.3 billion at December 31, 2016. The net charge-off rate for our automobile portfolio was 0.84% for 2016, compared with 0.72% for 2015. The increase in net charge-offs in 2016 as compared with 2015 was consistent with trends in the automobile lending industry.

OTHER REVOLVING CREDIT AND INSTALLMENT Other revolving credit and installment loans totaled $40.3 billion at December 31, 2016, and primarily included student and security-based loans. Student loans totaled $12.4 billion at December 31, 2016, compared with $12.2 billion at December 31, 2015. The net charge-off rate for other revolving credit and installment loans was 1.46% for 2016, compared with 1.36% for 2015.

NONPERFORMING ASSETS (NONACCRUAL LOANS AND FORECLOSED ASSETS) Table 28 summarizes nonperforming assets (NPAs) for each of the last five years. We generally place loans on nonaccrual status when:

- the full and timely collection of interest or principal becomes uncertain (generally based on an assessment of the borrower's financial condition and the adequacy of collateral, if any);
- they are 90 days (120 days with respect to real estate 1-4 family first and junior lien mortgages) past due for interest or principal, unless both well-secured and in the process of collection;
- part of the principal balance has been charged off, except for credit card loans, which remain on accrual status until fully charged off;
- for junior lien mortgages, we have evidence that the related first lien mortgage may be 120 days past due or in the process of foreclosure regardless of the junior lien delinquency status; or
- consumer real estate and automobile loans are discharged in bankruptcy, regardless of their delinquency status.

Note 1 (Summary of Significant Accounting Policies – Loans) to Financial Statements in this Report describes our accounting policy for nonaccrual and impaired loans.

Nonaccrual loans were $10.4 billion at December 31, 2016, down $1.0 billion from $11.4 billion at December 31, 2015, due to a decline of $2.6 billion in consumer nonaccrual loans reflecting an improved housing market and nonaccrual loan sales, partially offset by an increase of $1.6 billion in commercial nonaccrual loans predominantly driven by our oil and gas portfolio.

Table 28: Nonperforming Assets (Nonaccrual Loans and Foreclosed Assets)

					December 31,
(in millions)	**2016**	2015	2014	2013	2012
Nonaccrual loans:					
Commercial:					
Commercial and industrial	$ **3,216**	1,363	538	775	1,467
Real estate mortgage	**685**	969	1,490	2,254	3,323
Real estate construction	**43**	66	187	416	1,003
Lease financing	**115**	26	24	30	29
Total commercial	**4,059**	2,424	2,239	3,475	5,822
Consumer:					
Real estate 1-4 family first mortgage (1)	**4,962**	7,293	8,583	9,799	11,456
Real estate 1-4 family junior lien mortgage	**1,206**	1,495	1,848	2,188	2,923
Automobile	**106**	121	137	173	245
Other revolving credit and installment	**51**	49	41	33	40
Total consumer (2)	**6,325**	8,958	10,609	12,193	14,664
Total nonaccrual loans (3)(4)(5)	**10,384**	11,382	12,848	15,668	20,486
As a percentage of total loans	**1.07%**	1.24	1.49	1.91	2.57
Foreclosed assets:					
Government insured/guaranteed (6)	$ **197**	446	982	2,093	1,509
Non-government insured/guaranteed	**781**	979	1,627	1,844	2,514
Total foreclosed assets	**978**	1,425	2,609	3,937	4,023
Total nonperforming assets	$ **11,362**	12,807	15,457	19,605	24,509
As a percentage of total loans	**1.17%**	1.40	1.79	2.38	3.07

(1) Includes MHFS of $149 million, $177 million, $177 million, $227 million and $336 million at December 31, 2016, 2015, 2014, 2013, and 2012, respectively.
(2) December 31, 2012, includes the impact of the implementation of guidance issued by bank regulatory agencies in 2012 to put loans in bankruptcy on nonaccrual status.
(3) Excludes PCI loans because they continue to earn interest income from accretable yield, independent of performance in accordance with their contractual terms.
(4) Real estate 1-4 family mortgage loans predominantly insured by the FHA or guaranteed by the VA and student loans largely guaranteed by agencies on behalf of the U.S. Department of Education under the Federal Family Education Loan Program are not placed on nonaccrual status because they are insured or guaranteed.
(5) See Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for further information on impaired loans.
(6) During fourth quarter 2014, we adopted Accounting Standards Update (ASU) 2014-14, *Classification of Certain Government-Guaranteed Mortgage Loans Upon Foreclosure*, effective as of January 1, 2014. This ASU requires that certain government guaranteed residential real estate mortgage loans that meet specific criteria be recognized as other receivables upon foreclosure; previously, these assets were included in foreclosed assets. Government guaranteed residential real estate mortgage loans that completed foreclosure during 2014 and met the criteria specified by ASU 2014-14 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 Specific Accounting Policies) to Financial Statements in this Report.

Table 29 provides a summary of nonperforming assets during 2016.

Table 29: Nonperforming Assets by Quarter During 2016

	December 31, 2016		September 30, 2016		June 30, 2016		March 31, 2016	
(in millions)	**Balance**	**% of total loans**	Balance	% of total loans	Balance	% of total loans	Balance	% of total loans
Nonaccrual loans:								
Commercial:								
Commercial and industrial	**$ 3,216**	**0.97%**	$ 3,331	1.03%	$ 3,464	1.07%	$ 2,911	0.91%
Real estate mortgage	**685**	**0.52**	780	0.60	872	0.68	896	0.72
Real estate construction	**43**	**0.18**	59	0.25	59	0.25	63	0.27
Lease financing	**115**	**0.60**	92	0.49	112	0.59	99	0.52
Total commercial	**4,059**	**0.80**	4,262	0.86	4,507	0.91	3,969	0.81
Consumer:								
Real estate 1-4 family first mortgage	**4,962**	**1.80**	5,310	1.91	5,970	2.15	6,683	2.43
Real estate 1-4 family junior lien mortgage	**1,206**	**2.61**	1,259	2.62	1,330	2.67	1,421	2.77
Automobile	**106**	**0.17**	108	0.17	111	0.18	114	0.19
Other revolving credit and installment	**51**	**0.13**	47	0.12	45	0.11	47	0.12
Total consumer	**6,325**	**1.37**	6,724	1.45	7,456	1.61	8,265	1.80
Total nonaccrual loans	**10,384**	**1.07**	10,986	1.14	11,963	1.25	12,234	1.29
Foreclosed assets:								
Government insured/guaranteed	**197**		282		321		386	
Non-government insured/guaranteed	**781**		738		796		893	
Total foreclosed assets	**978**		1,020		1,117		1,279	
Total nonperforming assets	**$ 11,362**	**1.17%**	$ 12,006	1.25%	$ 13,080	1.37%	$ 13,513	1.43%
Change in NPAs from prior quarter	**$ (644)**		(1,074)		(433)		706	

Table 30 provides an analysis of the changes in nonaccrual loans.

Table 30: Analysis of Changes in Nonaccrual Loans

		Quarter ended				
	Dec 31,	Sep 30,	Jun 30,	Mar 31,	Year ended Dec 31,	
(in millions)	**2016**	2016	2016	2016	**2016**	2015
Commercial nonaccrual loans						
Balance, beginning of period	$ **4,262**	4,507	3,969	2,424	**2,424**	2,239
Inflows	**951**	1,180	1,936	2,291	**6,358**	2,511
Outflows:						
Returned to accruing	**(59)**	(80)	(32)	(34)	**(205)**	(157)
Foreclosures	**(15)**	(1)	(6)	(4)	**(26)**	(139)
Charge-offs	**(292)**	(290)	(420)	(317)	**(1,319)**	(602)
Payments, sales and other (1)	**(788)**	(1,054)	(940)	(391)	**(3,173)**	(1,428)
Total outflows	**(1,154)**	(1,425)	(1,398)	(746)	**(4,723)**	(2,326)
Balance, end of period	**4,059**	4,262	4,507	3,969	**4,059**	2,424
Consumer nonaccrual loans						
Balance, beginning of period	**6,724**	7,456	8,265	8,958	**8,958**	10,609
Inflows	**863**	868	829	964	**3,524**	4,684
Outflows:						
Returned to accruing	**(410)**	(597)	(546)	(584)	**(2,137)**	(2,676)
Foreclosures	**(59)**	(85)	(85)	(98)	**(327)**	(407)
Charge-offs	**(158)**	(192)	(167)	(203)	**(720)**	(926)
Payments, sales and other (1)	**(635)**	(726)	(840)	(772)	**(2,973)**	(2,326)
Total outflows	**(1,262)**	(1,600)	(1,638)	(1,657)	**(6,157)**	(6,335)
Balance, end of period	**6,325**	6,724	7,456	8,265	**6,325**	8,958
Total nonaccrual loans	$ **10,384**	10,986	11,963	12,234	**10,384**	11,382

(1) Other outflows include the effects of VIE deconsolidations and adjustments for loans carried at fair value.

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

While nonaccrual loans are not free of loss content, we believe exposure to loss is significantly mitigated by the following factors at December 31, 2016:

- 95% of total commercial nonaccrual loans and over 99% of total consumer nonaccrual loans are secured. Of the consumer nonaccrual loans, 98% are secured by real estate and 80% have a combined LTV (CLTV) ratio of 80% or less.
- net losses of $450 million and $2.2 billion have already been recognized on 12% of commercial nonaccrual loans and 47% of consumer nonaccrual loans, respectively. Generally, when a consumer real estate loan is 120 days past due (except when required earlier by guidance issued by bank regulatory agencies), we transfer it to nonaccrual status. When the loan reaches 180 days past due, or is discharged in bankruptcy, it is our policy to write these loans down to net realizable value (fair value of collateral less estimated costs to sell), except for modifications in their trial period that are not written down as long as trial payments are made on time. Thereafter, we reevaluate each loan regularly and record additional write-downs if needed.
- 89% of commercial nonaccrual loans were current on interest, but were on nonaccrual status because the full or timely collection of interest or principal had become uncertain.
- the risk of loss of all nonaccrual loans has been considered and we believe is adequately covered by the allowance for loan losses.
- $1.6 billion of consumer loans discharged in bankruptcy and classified as nonaccrual were 60 days or less past due, of which $1.5 billion were current.

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

If interest due on all nonaccrual loans (including loans that were, but are no longer on nonaccrual at year end) had been accrued under the original terms, approximately $658 million of interest would have been recorded as income on these loans, compared with $481 million actually recorded as interest income in 2016, versus $700 million and $569 million, respectively, in 2015.

Table 31 provides a summary of foreclosed assets and an analysis of changes in foreclosed assets.

Table 31: Foreclosed Assets

	Quarter ended				Year ended Dec 31,	
(in millions)	**Dec 31, 2016**	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	**2016**	2015
Summary by loan segment						
Government insured/guaranteed	$ **197**	282	321	386	**197**	446
PCI loans:						
Commercial	**91**	98	124	142	**91**	152
Consumer	**75**	88	91	97	**75**	103
Total PCI loans	**166**	186	215	239	**166**	255
All other loans:						
Commercial	**287**	298	313	357	**287**	384
Consumer	**328**	254	268	297	**328**	340
Total all other loans	**615**	552	581	654	**615**	724
Total foreclosed assets	$ **978**	1,020	1,117	1,279	**978**	1,425
Analysis of changes in foreclosed assets (1)						
Balance, beginning of period	$ **1,020**	1,117	1,279	1,425	**1,425**	2,609
Net change in government insured/guaranteed (2)	**(85)**	(39)	(65)	(60)	**(249)**	(536)
Additions to foreclosed assets (3)	**405**	261	281	290	**1,237**	1,308
Reductions:						
Sales	**(296)**	(421)	(405)	(390)	**(1,512)**	(2,169)
Write-downs and net gains (losses) on sales	**(66)**	102	27	14	**77**	213
Total reductions	**(362)**	(319)	(378)	(376)	**(1,435)**	(1,956)
Balance, end of period	$ **978**	1,020	1,117	1,279	**978**	1,425

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

Foreclosed assets at December 31, 2016, included $575 million of foreclosed residential real estate, of which 34% is predominantly FHA insured or VA guaranteed and expected to have minimal or no loss content. The remaining foreclosed assets balance of $403 million has been written down to estimated net realizable value. Of the $1.0 billion in foreclosed assets at December 31, 2016, 45% have been in the foreclosed assets portfolio one year or less.

TROUBLED DEBT RESTRUCTURINGS (TDRs)

Table 32: Troubled Debt Restructurings (TDRs)

					December 31,
(in millions)	**2016**	2015	2014	2013	2012
Commercial TDRs					
Commercial and industrial	**$ 2,584**	1,123	724	1,034	1,700
Real estate mortgage	**1,119**	1,456	1,880	2,248	2,625
Real estate construction	**91**	125	314	475	801
Lease financing	**6**	1	2	8	20
Total commercial TDRs	**3,800**	2,705	2,920	3,765	5,146
Consumer TDRs					
Real estate 1-4 family first mortgage	**14,134**	16,812	18,226	18,925	17,804
Real estate 1-4 family junior lien mortgage	**2,074**	2,306	2,437	2,468	2,390
Credit Card	**300**	299	338	431	531
Automobile	**85**	105	127	189	314
Other revolving credit and installment	**101**	73	49	33	24
Trial modifications	**299**	402	452	650	705
Total consumer TDRs (1)	**16,993**	19,997	21,629	22,696	21,768
Total TDRs	**$ 20,793**	22,702	24,549	26,461	26,914
TDRs on nonaccrual status	**$ 6,193**	6,506	7,104	8,172	10,149
TDRs on accrual status (1)	**14,600**	16,196	17,445	18,289	16,765
Total TDRs	**$ 20,793**	22,702	24,549	26,461	26,914

(1) TDR loans include $1.5 billion, $1.8 billion, $2.1 billion, $2.5 billion, and $1.9 billion at December 31, 2016, 2015, 2014, 2013, and 2012, respectively, of government insured/guaranteed loans that are predominantly insured by the FHA or guaranteed by the VA and are accruing.

Table 33: TDRs Balance by Quarter During 2016

(in millions)	**Dec 31, 2016**	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016
Commercial TDRs				
Commercial and industrial	**$ 2,584**	2,445	1,951	1,606
Real estate mortgage	**1,119**	1,256	1,324	1,364
Real estate construction	**91**	95	106	116
Lease financing	**6**	8	5	6
Total commercial TDRs	**3,800**	3,804	3,386	3,092
Consumer TDRs				
Real estate 1-4 family first mortgage	**14,134**	14,761	15,518	16,299
Real estate 1-4 family junior lien mortgage	**2,074**	2,144	2,214	2,261
Credit Card	**300**	294	291	295
Automobile	**85**	89	92	97
Other revolving credit and installment	**101**	93	86	81
Trial modifications	**299**	348	364	380
Total consumer TDRs	**16,993**	17,729	18,565	19,413
Total TDRs	**$ 20,793**	21,533	21,951	22,505
TDRs on nonaccrual status	**$ 6,193**	6,429	6,404	6,484
TDRs on accrual status	**14,600**	15,104	15,547	16,021
Total TDRs	**$ 20,793**	21,533	21,951	22,505

Table 32 and Table 33 provide information regarding the recorded investment of loans modified in TDRs. The allowance for loan losses for TDRs was $2.2 billion and $2.7 billion at December 31, 2016 and 2015, respectively. 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 to the extent not done so prior to the modification. When we delay the timing on the repayment of a portion of principal (principal forbearance), we charge off the amount of forbearance if that amount is not considered fully collectible.

Our nonaccrual policies are generally the same for all loan types when a restructuring is involved. We typically re-underwrite loans at the time of restructuring to determine whether there is sufficient evidence of sustained repayment capacity based on the borrower's documented income, debt to income ratios, and other factors. Loans lacking sufficient evidence of sustained repayment capacity at the time of modification are charged down to the fair value of the collateral, if applicable. For an accruing loan that has been modified, if the borrower has demonstrated performance under the previous terms and the underwriting process shows the capacity to continue to perform under the restructured terms, the loan will generally remain in accruing status. Otherwise, the loan will be placed in nonaccrual status and may be returned to accruing status when the borrower demonstrates a sustained period of performance, generally six consecutive months of payments, or equivalent, inclusive of consecutive payments made prior to modification. Loans will also be placed on nonaccrual, and a corresponding charge-off is recorded to the loan balance, when we believe that principal and interest contractually due under the modified agreement will not be collectible.

Table 34 provides an analysis of the changes in TDRs. Loans modified more than once are reported as TDR inflows only in the period they are first modified. Other than resolutions such as foreclosures, sales and transfers to held for sale, we may remove loans held for investment from TDR classification, but only if they have been refinanced or restructured at market terms and qualify as a new loan.

Table 34: Analysis of Changes in TDRs

	Quarter ended				Year ended Dec. 31,	
(in millions)	**Dec 31, 2016**	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	**2016**	2015
Commercial TDRs						
Balance, beginning of period	**$ 3,804**	3,386	3,092	2,705	**2,705**	2,920
Inflows (1)	**615**	914	797	866	**3,192**	1,729
Outflows						
Charge-offs	**(120)**	(76)	(153)	(124)	**(473)**	(241)
Foreclosure	**(13)**	(2)	—	(1)	**(16)**	(110)
Payments, sales and other (2)	**(486)**	(418)	(350)	(354)	**(1,608)**	(1,593)
Balance, end of period	**3,800**	3,804	3,386	3,092	**3,800**	2,705
Consumer TDRs						
Balance, beginning of period	**17,729**	18,565	19,413	19,997	**19,997**	21,629
Inflows (1)	**513**	542	508	661	**2,224**	2,927
Outflows						
Charge-offs	**(48)**	(65)	(38)	(67)	**(218)**	(311)
Foreclosure	**(166)**	(230)	(217)	(238)	**(851)**	(939)
Payments, sales and other (2)	**(987)**	(1,067)	(1,085)	(917)	**(4,056)**	(3,259)
Net change in trial modifications (3)	**(48)**	(16)	(16)	(23)	**(103)**	(50)
Balance, end of period	**16,993**	17,729	18,565	19,413	**16,993**	19,997
Total TDRs	**$ 20,793**	21,533	21,951	22,505	**20,793**	22,702

(1) Inflows include loans that modify, even if they resolve, within the period as well as advances on loans that modified in a prior period.
(2) Other outflows include normal amortization/accretion of loan basis adjustments and loans transferred to held-for-sale. It also includes $4 million of loans refinanced or restructured at market terms and qualifying as new loans and removed from TDR classification for the quarter ended December 31, 2016, while no loans were removed from TDR classification for the quarters ended September 30, June 30, and March 31, 2016. During 2015, $6 million of loans refinanced or structured as new loans and were removed from TDR classification.
(3) Net change in trial modifications includes: inflows of new TDRs entering the trial payment period, net of outflows for modifications that either (i) successfully perform and enter into a permanent modification, or (ii) did not successfully perform according to the terms of the trial period plan and are subsequently charged-off, foreclosed upon or otherwise resolved.

LOANS 90 DAYS OR MORE PAST DUE AND STILL ACCRUING

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

Excluding insured/guaranteed loans, loans 90 days or more past due and still accruing at December 31, 2016, were down $9 million, or 1%, from December 31, 2015, primarily due to improving credit trends for commercial and industrial loans and real estate 1-4 family first mortgages, partially offset by increases in commercial real estate mortgage, credit card and automobile loans.

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 and largely insured by the U.S. Department of Education for student loans under the Federal Family Education Loan Program (FFELP) were $10.9 billion at December 31, 2016, down from $13.4 billion at December 31, 2015, due to improving credit trends.

Table 35 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 35: Loans 90 Days or More Past Due and Still Accruing

					December 31,
(in millions)	**2016**	2015	2014	2013	2012
Total (excluding PCI)(1):	**$ 11,858**	14,380	17,810	23,219	23,245
Less: FHA insured/guaranteed by the VA (2)(3)	**10,883**	13,373	16,827	21,274	20,745
Less: Student loans guaranteed under the FFELP (4)	**3**	26	63	900	1,065
Total, not government insured/guaranteed	**$ 972**	981	920	1,045	1,435
By segment and class, not government insured/guaranteed:					
Commercial:					
Commercial and industrial	**$ 28**	97	31	11	48
Real estate mortgage	**36**	13	16	35	228
Real estate construction	**—**	4	—	97	27
Total commercial	**64**	114	47	143	303
Consumer:					
Real estate 1-4 family first mortgage (3)	**175**	224	260	354	564
Real estate 1-4 family junior lien mortgage (3)	**56**	65	83	86	133
Credit card	**452**	397	364	321	310
Automobile	**112**	79	73	55	40
Other revolving credit and installment	**113**	102	93	86	85
Total consumer	**908**	867	873	902	1,132
Total, not government insured/guaranteed	**$ 972**	981	920	1,045	1,435

(1) PCI loans totaled $2.0 billion, $2.9 billion, $3.7 billion, $4.5 billion and $6.0 billion at December 31, 2016, 2015, 2014, 2013 and 2012, respectively.
(2) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.
(3) Includes mortgages held for sale 90 days or more past due and still accruing.
(4) Represents loans whose repayments are largely guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP. In fourth quarter 2014, substantially all government guaranteed loans were sold.

NET CHARGE-OFFS

Table 36: Net Charge-offs

	Year ended		Quarter ended							
	December 31,		December 31,		September 30,		June 30,		March 31,	
($ in millions)	Net loan charge-offs	% of avg. loans	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)
2016										
Commercial:										
Commercial and industrial	**$ 1,156**	**0.36 %**	**$ 256**	**0.31 %**	**$ 259**	**0.32 %**	**$ 368**	**0.46 %**	**$ 273**	**0.36 %**
Real estate mortgage	**(89)**	**(0.07)**	**(12)**	**(0.04)**	**(28)**	**(0.09)**	**(20)**	**(0.06)**	**(29)**	**(0.10)**
Real estate construction	**(37)**	**(0.16)**	**(8)**	**(0.13)**	**(18)**	**(0.32)**	**(3)**	**(0.06)**	**(8)**	**(0.13)**
Lease financing	**30**	**0.17**	**15**	**0.32**	**2**	**0.04**	**12**	**0.27**	**1**	**0.01**
Total commercial	**1,060**	**0.22**	**251**	**0.20**	**215**	**0.17**	**357**	**0.29**	**237**	**0.20**
Consumer:										
Real estate 1-4 family first mortgage	**79**	**0.03**	**(3)**	**—**	**20**	**0.03**	**14**	**0.02**	**48**	**0.07**
Real estate 1-4 family junior lien mortgage	**229**	**0.46**	**44**	**0.38**	**49**	**0.40**	**62**	**0.49**	**74**	**0.57**
Credit card	**1,052**	**3.08**	**275**	**3.09**	**245**	**2.82**	**270**	**3.25**	**262**	**3.16**
Automobile	**520**	**0.84**	**166**	**1.05**	**137**	**0.87**	**90**	**0.59**	**127**	**0.85**
Other revolving credit and installment	**580**	**1.46**	**172**	**1.70**	**139**	**1.40**	**131**	**1.32**	**138**	**1.42**
Total consumer	**2,460**	**0.53**	**654**	**0.56**	**590**	**0.51**	**567**	**0.49**	**649**	**0.57**
Total	**$ 3,520**	**0.37 %**	**$ 905**	**0.37 %**	**$ 805**	**0.33 %**	**$ 924**	**0.39 %**	**$ 886**	**0.38 %**
2015										
Commercial:										
Commercial and industrial	$ 482	0.17 %	$ 215	0.29 %	$ 122	0.17 %	$ 81	0.12 %	$ 64	0.10 %
Real estate mortgage	(68)	(0.06)	(19)	(0.06)	(23)	(0.08)	(15)	(0.05)	(11)	(0.04)
Real estate construction	(33)	(0.16)	(10)	(0.18)	(8)	(0.15)	(6)	(0.11)	(9)	(0.19)
Lease financing	6	0.05	1	0.01	3	0.11	2	0.06	—	—
Total commercial	387	0.09	187	0.16	94	0.08	62	0.06	44	0.04
Consumer:										
Real estate 1-4 family first mortgage	262	0.10	50	0.07	62	0.09	67	0.10	83	0.13
Real estate 1-4 family junior lien mortgage	376	0.67	70	0.52	89	0.64	94	0.66	123	0.85
Credit card	941	3.00	243	2.93	216	2.71	243	3.21	239	3.19
Automobile	417	0.72	135	0.90	113	0.76	68	0.48	101	0.73
Other revolving credit and installment	509	1.36	146	1.49	129	1.35	116	1.26	118	1.32
Total consumer	2,505	0.55	644	0.56	609	0.53	588	0.53	664	0.60
Total	$ 2,892	0.33 %	$ 831	0.36 %	$ 703	0.31 %	$ 650	0.30 %	$ 708	0.33 %

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

Table 36 presents net charge-offs for the four quarters and full year of 2016 and 2015. Net charge-offs in 2016 were $3.5 billion (0.37% of average total loans outstanding) compared with $2.9 billion (0.33%) in 2015.

The increase in commercial and industrial net charge-offs in 2016 reflected higher oil and gas portfolio losses. Our commercial real estate portfolios were in a net recovery position every quarter in 2016 and 2015. Total consumer net charge-offs decreased slightly from the prior year due to a decline in residential real estate net charge-offs, partially offset by an increase in credit card and automobile losses.

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 and Note 1 (Summary of Significant Accounting Policies) and Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

Table 37 presents the allocation of the allowance for credit losses by loan segment and class for the last five years.

Table 37: Allocation of the Allowance for Credit Losses (ACL)

	Dec 31, 2016		Dec 31, 2015		Dec 31, 2014		Dec 31, 2013		Dec 31, 2012	
(in millions)	**ACL**	**Loans as % of total loans**	ACL	Loans as % of total loans	ACL	Loans as % of total loans	ACL	Loans as % of total loans	ACL	Loans as % of total loans
Commercial:										
Commercial and industrial	**$ 4,560**	**34%**	$ 4,231	33%	$ 3,506	32%	$ 3,040	29%	$ 2,789	28%
Real estate mortgage	**1,320**	**14**	1,264	13	1,576	13	2,157	14	2,284	13
Real estate construction	**1,294**	**2**	1,210	3	1,097	2	775	2	552	2
Lease financing	**220**	**2**	167	1	198	1	131	1	89	2
Total commercial	**7,394**	**52**	6,872	50	6,377	48	6,103	46	5,714	45
Consumer:										
Real estate 1-4 family first mortgage	**1,270**	**29**	1,895	30	2,878	31	4,087	32	6,100	31
Real estate 1-4 family junior lien mortgage	**815**	**5**	1,223	6	1,566	7	2,534	8	3,462	10
Credit card	**1,605**	**4**	1,412	4	1,271	4	1,224	3	1,234	3
Automobile	**817**	**6**	529	6	516	6	475	6	417	6
Other revolving credit and installment	**639**	**4**	581	4	561	4	548	5	550	5
Total consumer	**5,146**	**48**	5,640	50	6,792	52	8,868	54	11,763	55
Total	**$ 12,540**	**100%**	$ 12,512	100%	$ 13,169	100%	$ 14,971	100%	$ 17,477	100%

	Dec 31, 2016	Dec 31, 2015	Dec 31, 2014	Dec 31, 2013	Dec 31, 2012
Components:					
Allowance for loan losses	**$ 11,419**	11,545	12,319	14,502	17,060
Allowance for unfunded credit commitments	**1,121**	967	850	469	417
Allowance for credit losses	**$ 12,540**	12,512	13,169	14,971	17,477
Allowance for loan losses as a percentage of total loans	**1.18%**	1.26	1.43	1.76	2.13
Allowance for loan losses as a percentage of total net charge-offs	**324**	399	418	322	189
Allowance for credit losses as a percentage of total loans	**1.30**	1.37	1.53	1.82	2.19
Allowance for credit losses as a percentage of total nonaccrual loans	**121**	110	103	96	85

In addition to the allowance for credit losses, there was $954 million at December 31, 2016, and $1.9 billion at December 31, 2015, of nonaccretable difference to absorb losses for PCI loans, which totaled $16.7 billion at December 31, 2016. The allowance for credit losses is lower than otherwise would have been required without PCI loan accounting. As a result of PCI loans, certain ratios of the Company may not be directly comparable with credit-related metrics for other financial institutions. Additionally, loans purchased at fair value, including loans from the GE Capital business acquisitions, generally reflect a lifetime credit loss adjustment and therefore do not initially require additions to the allowance as is typically associated with loan growth. For additional information on PCI loans, see the "Risk Management – Credit Risk Management – Purchased Credit-Impaired Loans" section, Note 1 (Summary of Significant Accounting Policies) 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. Our nonaccrual loans consisted primarily of real estate 1-4 family first and junior lien mortgage loans at December 31, 2016.

The allowance for credit losses increased $28 million in 2016, due to an increase in our commercial allowance reflecting deterioration in the oil and gas portfolio, and loan growth in the commercial, automobile and credit card portfolios, partially offset by continued improvement in the residential real estate portfolios. Total provision for credit losses was $3.8 billion in 2016, $2.4 billion in 2015 and $1.4 billion in 2014. The 2016 provision for credit losses was $250 million more than net charge-offs, due to deterioration in the oil and gas portfolio. The 2015 provision was $450 million less than net charge-offs, and the 2014 provision was $1.6 billion less than net charge-offs. For each of 2015 and 2014, the provision was influenced by continually improving credit performance.

We believe the allowance for credit losses of $12.5 billion at December 31, 2016, was appropriate to cover credit losses inherent in the loan portfolio, including unfunded credit commitments, at that date. Approximately $1.3 billion of the allowance at December 31, 2016 was allocated to our oil and gas portfolio, compared with $1.2 billion at December 31, 2015. This represented 8.5% and 6.7% of total oil and gas loans outstanding at December 31, 2016 and 2015, respectively. However, the entire allowance is available to absorb credit losses inherent in the total loan portfolio. The allowance for credit losses is subject to change and reflects existing factors as of the date of determination, including economic or market conditions and ongoing internal and external examination processes. Due to the sensitivity of the allowance for credit losses to changes in the economic and business environment, it is possible that we will incur incremental credit losses not anticipated as of the balance sheet date. Future allowance levels will be based on a variety of factors, including loan growth, portfolio performance and general economic conditions. Our process for determining the allowance for credit losses is discussed in the "Critical Accounting Policies – Allowance for Credit Losses" section and Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

LIABILITY FOR MORTGAGE LOAN REPURCHASE LOSSES We sell residential mortgage loans to various parties, including (1) government-sponsored entities (GSEs) Federal Home Loan Mortgage Corporation (FHLMC) and Federal National Mortgage Association (FNMA) who include the mortgage loans in GSE-guaranteed mortgage securitizations, (2) SPEs that issue private label MBS, and (3) other financial institutions that purchase mortgage loans for investment or private label securitization. In addition, we pool FHA-insured and VA-guaranteed mortgage loans that are then used to back securities guaranteed by the Government National Mortgage Association (GNMA). We may be required to repurchase these mortgage loans, indemnify the securitization trust, investor or insurer, or reimburse the securitization trust, investor or insurer for credit losses incurred on loans (collectively, repurchase) in the event of a breach of contractual representations or warranties that is not remedied within a period (usually 90 days or less) after we receive notice of the breach.

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

Because we typically retain the servicing for the mortgage loans we sell or securitize, we believe the quality of our residential mortgage loan servicing portfolio provides helpful information in evaluating our repurchase liability. Of the $1.6 trillion in the residential mortgage loan servicing portfolio at December 31, 2016, 95% was current and less than 1% was subprime at origination. Our combined delinquency and foreclosure rate on this portfolio was 4.83% at December 31, 2016, compared with 5.18% at December 31, 2015. Two percent of this portfolio is private label securitizations for which we originated the loans and, therefore, have some repurchase risk.

The overall level of unresolved repurchase demands and mortgage insurance rescissions outstanding at December 31, 2016, was $125 million, representing 597 loans, up from $62 million, or 280 loans, a year ago due to an increase in private investor demands.

Customary with industry practice, we have the right of recourse against correspondent lenders from whom we have purchased loans with respect to representations and warranties. Historical recovery rates as well as projected lender performance are incorporated in the establishment of our mortgage repurchase liability.

We do not typically receive repurchase requests from GNMA, FHA and the Department of Housing and Urban Development (HUD) or VA. As an originator of an FHA-insured or VA-guaranteed loan, we are responsible for obtaining the insurance with the FHA or the guarantee with the VA. To the extent we are not able to obtain the insurance or the guarantee we must request permission to repurchase the loan from the GNMA pool. Such repurchases from GNMA pools typically represent a self-initiated process upon discovery of the uninsurable loan (usually within 180 days from funding of the loan). Alternatively, in lieu of repurchasing loans from GNMA pools, we may be asked by FHA/HUD or the VA to indemnify them (as applicable) for defects found in the Post Endorsement Technical Review process or audits performed by FHA/HUD or the VA. The Post Endorsement Technical Review is a process whereby HUD performs underwriting audits of closed/insured FHA loans for potential deficiencies. Our liability for mortgage loan repurchase losses incorporates probable losses associated with such indemnification.

Table 38 summarizes the changes in our mortgage repurchase liability. We incurred net losses on repurchased loans and investor reimbursements totaling $46 million in 2016, compared with $78 million in 2015.

Table 38: Changes in Mortgage Repurchase Liability

		Quarter ended					
						Year ended Dec. 31,	
(in millions)	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	2016	2015	2014
Balance, beginning of period	$ 239	255	355	378	378	615	899
Provision for repurchase losses:							
Loan sales	10	11	8	7	36	43	44
Change in estimate (1)	(7)	(24)	(89)	(19)	(139)	(202)	(184)
Net additions (reductions)	3	(13)	(81)	(12)	(103)	(159)	(140)
Losses	(13)	(3)	(19)	(11)	(46)	(78)	(144)
Balance, end of period	$ 229	239	255	355	229	378	615

(1) Results from changes in investor demand and mortgage insurer practices, credit deterioration and changes in the financial stability of correspondent lenders.

Our liability for mortgage repurchases, included in "Accrued expenses and other liabilities" in our consolidated balance sheet, represents our best estimate of the probable loss that we expect to incur for various representations and warranties in the contractual provisions of our sales of mortgage loans. The mortgage repurchase liability estimation process requires management to make difficult, subjective and complex judgments about matters that are inherently uncertain, including demand expectations, economic factors, and the specific characteristics of the loans subject to repurchase. Our evaluation considers all vintages and the collective actions of the GSEs and their regulator, the Federal Housing Finance Agency (FHFA), mortgage insurers and our correspondent lenders. We maintain regular contact with the GSEs, the FHFA, and other significant investors to monitor their repurchase demand practices and issues as part of our process to update our repurchase liability estimate as new information becomes available. The liability was $229 million at December 31, 2016, and $378 million at December 31, 2015. In 2016, we released $103 million, which increased net gains on mortgage loan origination/sales activities, compared with a release of $159 million in 2015. The release in 2016 was largely due to the resolution of certain exposures during the year.

Because of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that are reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. The high end of this range of reasonably possible losses exceeded our recorded liability by $195 million at December 31, 2016, and was determined based upon modifying the assumptions (particularly to assume significant changes in investor repurchase demand practices) used in our best estimate of probable loss to reflect what we believe to be the high end of reasonably possible adverse assumptions. For additional information on our repurchase liability, see Note 9 (Mortgage Banking Activities) to Financial Statements in this Report.

RISKS RELATING TO SERVICING ACTIVITIES In addition to servicing loans in our portfolio, we act as servicer and/or master servicer of residential mortgage loans included in GSE-guaranteed mortgage securitizations, GNMA-guaranteed mortgage securitizations of FHA-insured/VA-guaranteed mortgages and private label mortgage securitizations, as well as for unsecuritized loans owned by institutional investors. The following discussion summarizes the primary duties and requirements of servicing and related industry developments.

General Servicing Duties and Requirements

The loans we service were originated by us or by other mortgage loan originators. As servicer, our primary duties are typically to (1) collect payments due from borrowers, (2) advance certain delinquent payments of principal and interest on the mortgage loans, (3) maintain and administer any hazard, title or primary mortgage insurance policies relating to the mortgage loans, (4) maintain any required escrow accounts for payment of taxes and insurance and administer escrow payments, (5) foreclose on defaulted mortgage loans or, to the extent consistent with the related servicing agreement, consider alternatives to foreclosure, such as loan modifications or short sales, and (6) for loans sold into private label securitizations, manage the foreclosed property through liquidation. As master servicer, our primary duties are typically to (1) supervise, monitor and oversee the servicing of the mortgage loans by the servicer, (2) consult with each servicer and use reasonable efforts to cause the servicer to observe its servicing obligations, (3) prepare monthly distribution statements to security holders and, if required by the securitization documents, certain periodic reports required to be filed with the SEC, (4) if required by the securitization documents, calculate distributions and loss allocations on the mortgage-backed securities, (5) prepare tax and information returns of the securitization trust, and (6) advance amounts required by non-affiliated servicers who fail to perform their advancing obligations.

Each agreement under which we act as servicer or master servicer generally specifies a standard of responsibility for actions we take in such capacity and provides protection against expenses and liabilities we incur when acting in compliance with the specified standard. For example, private label securitization agreements under which we act as servicer or master servicer typically provide that the servicer and the master servicer are entitled to indemnification by the securitization trust for taking action or refraining from taking action in good faith or for errors in judgment. However, we are not indemnified, but rather are required to indemnify the securitization trustee, against any failure by us, as servicer or master servicer, to perform our servicing obligations or against any of our acts or omissions that involve willful misfeasance, bad faith or gross negligence in the performance of, or reckless disregard of, our duties. In addition, if we commit a material breach of our obligations as servicer or master servicer, we may be subject to termination if the breach is not cured within a specified period following notice, which can generally be given by the securitization trustee or a specified percentage of security holders. Whole loan sale contracts under which we act as servicer generally include similar provisions with respect to our actions as servicer. The standards governing servicing in GSE-guaranteed securitizations, and the possible remedies for violations of such standards, vary, and those standards and remedies are determined by servicing guides maintained by the GSEs, contracts between the GSEs and individual servicers and topical guides published by the GSEs from time to time. Such remedies could include indemnification or repurchase of an affected mortgage loan.

Consent Orders and Settlement Agreements for Mortgage Servicing and Foreclosure Practices

In connection with our servicing activities, we have entered into various settlements with federal and state regulators to resolve certain alleged servicing issues and practices. In general, these settlements required us to provide customers with loan modification relief, refinancing relief, and foreclosure prevention and assistance, as well as imposed certain monetary penalties on us.

In particular, in June 2015, we entered into an amendment to an April 2011 Consent Order with the Office of the Comptroller of the Currency (OCC) to address 15 of the 98 actionable items contained in the April 2011 Consent Order that were still considered open. This amendment required that we remediate certain activities associated with our mortgage loan servicing practices and allowed for the OCC to take additional supervisory action, including possible civil money penalties, if we did not comply with the terms of this amended Consent Order. In addition, this amendment prohibited us from acquiring new mortgage servicing rights or entering into new mortgage servicing contracts, other than mortgage servicing associated with originating mortgage loans or purchasing loans from correspondent clients in our normal course of business.

Additionally, this amendment prohibited any new off-shoring of new mortgage servicing activities and required OCC approval to outsource or sub-service any new mortgage servicing activities. On May 25, 2016, the OCC announced that it had terminated the amended Consent Order and the underlying April 2011 Consent Order after determining that we were in compliance with their requirements. The termination of the orders ends the business restrictions affecting Wells Fargo that the OCC mandated in June 2015. The OCC also assessed a $70 million civil money penalty against us for previous violations of the orders. This penalty was accrued for in our financial statements in third quarter 2015 and was paid in second quarter 2016.

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. Each of our principal lines of business has its own asset/liability management committee and process linked to the Corporate ALCO process. As discussed in more detail for trading activities below, we employ separate management level oversight specific to market risk.

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

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

We assess interest rate risk by comparing outcomes under various earnings 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 how changes in interest rates and related market conditions could influence drivers of earnings and balance sheet composition such as loan origination demand, prepayment speeds, deposit balances and mix, as well as pricing strategies.

Our risk measures include both net interest income sensitivity and interest rate sensitive noninterest income and expense impacts. We refer to the combination of these exposures as interest rate sensitive earnings. In general, the Company is positioned to benefit from higher interest rates. Currently, our profile is such that net interest income will benefit from higher interest rates as our assets reprice faster and to a greater degree than our liabilities, and, in response to lower market rates, our assets will reprice downward and to a greater degree than our liabilities. Our interest rate sensitive noninterest income and expense is primarily driven by mortgage activity, and tends to move in the opposite direction of our net interest income. So, in response to higher interest rates, mortgage activity, including refinancing activity, generally declines. And in response to lower rates, mortgage activity generally increases. Mortgage results in our simulations 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.

The degree to which these sensitivities offset each other is dependent upon the timing and magnitude of changes in interest rates, and the slope of the yield curve. During a transition to a higher or lower interest rate environment, a reduction or increase in interest-sensitive earnings from the mortgage banking business could occur quickly, while the benefit or detriment from balance sheet repricing could take more time to develop. For example, our lower rate scenarios (scenario 1 and scenario 2) in the following table measure a decline in interest rates versus our most likely scenario. Although the performance in these rate scenarios contain benefits from increased mortgage banking activity, the result is lower earnings relative to the most likely scenario over time given pressure on net interest income. The higher rate scenarios (scenario 3 and scenario 4) measure the impact of varying degrees of rising short-term and long-term interest rates over the course of the forecast horizon relative to the most likely scenario, both resulting in positive earnings sensitivity.

As of December 31, 2016, our most recent simulations estimate earnings at risk over the next 24 months under a range of both lower and higher interest rates. The results of the simulations are summarized in Table 39, indicating cumulative net income after tax earnings sensitivity relative to the most likely earnings plan over the 24 month horizon (a positive range indicates a beneficial earnings sensitivity measurement relative to the most likely earnings plan and a negative range indicates a detrimental earnings sensitivity relative to the most likely earnings plan).

Table 39: Earnings Sensitivity Over 24 Month Horizon Relative to Most Likely Earnings Plan

	Most likely	Lower rates Scenario 1	Lower rates Scenario 2	Higher rates Scenario 3	Higher rates Scenario 4
Ending rates:					
Federal funds	2.00 %	0.25	1.84	2.09	5.25
10-year treasury (1)	3.36	1.80	2.86	3.86	6.30
Earnings relative to most likely	N/A	(3)-(4) %	(1)-(2)	0-5	0-5

(1) U.S. Constant Maturity Treasury Rate

We use the investment securities portfolio and exchange-traded and over-the-counter (OTC) interest rate derivatives to hedge our interest rate exposures. See the "Balance Sheet Analysis – Investment Securities" section in this Report for more information on the use of the available-for-sale and held-to-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 December 31, 2016, and December 31, 2015, are presented in Note 16 (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. Based on market conditions and other factors, we reduce credit and liquidity risks by selling or securitizing a majority of the long-term fixed-rate mortgage and ARM loans we originate. On the other hand, we may hold originated ARMs and fixed-rate mortgage loans in our loan portfolio as an investment for our growing base of deposits. We determine whether the loans will be held for investment or held for sale at the time of commitment. We may subsequently change our intent to hold loans for investment and sell some or all of our ARMs or fixed-rate mortgages as part of our corporate asset/liability management. We may also acquire and add to our securities available for sale a portion of the securities issued at the time we securitize MHFS.

Interest rate and market risk can be substantial in the mortgage business. Changes in interest rates may potentially reduce total origination and servicing fees, the value of our residential MSRs measured at fair value, the value of MHFS and the associated income and loss reflected in mortgage banking noninterest income, the income and expense associated with instruments (economic hedges) used to hedge changes in the fair value of MSRs and MHFS, and the value of derivative loan commitments (interest rate "locks") extended to mortgage applicants.

Interest rates affect the amount and timing of origination and servicing fees because consumer demand for new mortgages and the level of refinancing activity are sensitive to changes in mortgage interest rates. Typically, a decline in mortgage interest rates will lead to an increase in mortgage originations and fees and may also lead to an increase in servicing fee income, depending on the level of new loans added to the servicing portfolio and prepayments. Given the time it takes for consumer behavior to fully react to interest rate changes, as well as the time required for processing a new application, providing the commitment, and securitizing and selling the loan, interest rate changes will affect origination and servicing fees with a lag. The amount and timing of the impact on origination and servicing fees will depend on the magnitude, speed and duration of the change in interest rates.

We measure originations of MHFS at fair value where an active secondary market and readily available market prices exist to reliably support fair value pricing models used for these loans. Loan origination fees on these loans are recorded when earned, and related direct loan origination costs are recognized when incurred. We also measure at fair value certain of our other interests held related to residential loan sales and securitizations. We believe fair value measurement for MHFS and other interests held, which we hedge with free-standing derivatives (economic hedges) along with our MSRs measured at fair value, reduces certain timing differences and better matches changes in the value of these assets with changes in the value of derivatives used as economic hedges for these assets. During 2016 and 2015, in response to continued secondary market illiquidity, we continued to originate certain prime non-agency loans to be held for investment for the foreseeable future rather than to be held for sale.

We initially measure all of our MSRs at fair value and carry substantially all of them at fair value depending on our strategy for managing interest rate risk. Under this method, the MSRs are recorded at fair value at the time we sell or securitize the related mortgage loans. The carrying value of MSRs carried at fair value reflects changes in fair value at the end of each quarter and changes are included in net servicing income, a component of mortgage banking noninterest income. If the fair value of the MSRs increases, income is recognized; if the fair value of the MSRs decreases, a loss is recognized. We use a dynamic and sophisticated model to estimate the fair value of our MSRs and periodically benchmark our estimates to independent appraisals. The valuation of MSRs can be highly subjective and involve complex judgments by management about matters that are inherently unpredictable. See "Critical Accounting Policies – Valuation of Residential Mortgage Servicing Rights" section in this Report for additional information. Changes in interest rates influence a variety of significant assumptions included in the periodic valuation of MSRs, including prepayment speeds, expected returns and potential risks on the servicing asset portfolio, the value of escrow balances and other servicing valuation elements.

A decline in interest rates generally increases the propensity for refinancing, reduces the expected duration of the servicing portfolio and therefore reduces the estimated fair value of MSRs. This reduction in fair value causes a charge to income for MSRs carried at fair value, net of any gains on free-standing derivatives (economic hedges) used to hedge MSRs. We may choose not to fully hedge the entire potential decline in the value of our MSRs resulting from a decline in interest rates because the potential increase in origination/servicing fees in that scenario provides a partial "natural business hedge." An increase in interest rates generally reduces the propensity for refinancing, extends the expected duration of the servicing portfolio and, therefore, increases the estimated fair value of the MSRs. However, an increase in interest rates can also reduce mortgage loan demand and, therefore, reduce origination income.

The price risk associated with our MSRs is economically hedged with a combination of highly liquid interest rate forward instruments including mortgage forward contracts, interest rate swaps and interest rate options. All of the instruments included in the hedge are marked to market daily. Because the hedging instruments are traded in highly liquid markets, their prices are readily observable and are fully reflected in each quarter's mark to market. Quarterly MSR hedging results include a combination of directional gain or loss due to market changes as well as any carry income generated. If the economic hedge is effective, its overall directional hedge gain or loss will offset the change in the valuation of the underlying MSR asset. Gains or losses associated with these economic hedges are included in mortgage banking noninterest income. Consistent with our longstanding approach to hedging interest rate risk in the mortgage business, the size of the hedge and the particular combination of forward hedging instruments at any point in time is designed to reduce the volatility of the mortgage business's earnings over various time frames within a range of mortgage interest rates. Because market factors, the composition of the mortgage servicing portfolio and the relationship between the origination and servicing sides of our mortgage business change continually, the types of instruments used in our hedging are reviewed daily and rebalanced based on our evaluation of current market factors and the interest rate risk inherent in our MSRs portfolio. Throughout 2016, our economic hedging strategy generally used forward mortgage purchase contracts that were effective at offsetting the impact of interest rates on the value of the MSR asset.

Mortgage forward contracts are designed to pass the full economics of the underlying reference mortgage securities to the holder of the contract, including both the directional gain and loss from the forward delivery of the reference securities and the corresponding carry income. Carry income represents the contract's price accretion from the forward delivery price to the spot price including both the yield earned on the reference securities and the market implied cost of financing during the period. The actual amount of carry income earned on the hedge each quarter will depend on the amount of the underlying asset that is hedged and the particular instruments included in the hedge. The level of carry income is driven by the slope of the yield curve and other market driven supply and demand factors affecting the specific reference securities. A steep yield curve generally produces higher carry income while a flat or inverted yield curve can result in lower or potentially negative carry income. The level of carry income is also affected by the type of instrument used. In general, mortgage forward contracts tend to produce higher carry income than interest rate swap contracts. Carry income is recognized over the life of the mortgage forward as a component of the contract's mark to market gain or loss.

Hedging the various sources of interest rate risk in mortgage banking is a complex process that requires sophisticated modeling and constant monitoring. While we attempt to balance these various aspects of the mortgage business, there are several potential risks to earnings:

- Valuation changes for MSRs associated with interest rate changes are recorded in earnings immediately within the accounting period in which those interest rate changes occur, whereas the impact of those same changes in interest rates on origination and servicing fees occur with a lag and over time. Thus, the mortgage business could be protected from adverse changes in interest rates over a period of time on a cumulative basis but still display large variations in income from one accounting period to the next.
- The degree to which our net gains on loan originations offsets valuation changes for MSRs is imperfect, varies at different points in the interest rate cycle, and depends not just on the direction of interest rates but on the pattern of quarterly interest rate changes.
- Origination volumes, the valuation of MSRs and hedging results and associated costs are also affected by many factors. Such factors include the mix of new business between ARMs and fixed-rate mortgages, the relationship between short-term and long-term interest rates, the degree of volatility in interest rates, the relationship between mortgage interest rates and other interest rate markets, and other interest rate factors. Additional factors that can impact the valuation of the MSRs include changes in servicing and foreclosure costs due to changes in investor or regulatory guidelines, as well as individual state foreclosure legislation, and changes in discount rates due to market participants requiring a higher return due to updated market expectations on costs and risks associated with investing in MSRs. Many of these factors are hard to predict and we may not be able to directly or perfectly hedge their effect.
- While our hedging activities are designed to balance our mortgage banking interest rate risks, the financial instruments we use may not perfectly correlate with the values and income being hedged. For example, the change in the value of ARM production held for sale from changes in mortgage interest rates may or may not be fully offset by LIBOR index-based financial instruments used as economic hedges for such ARMs. Additionally, hedge-carry income we earn on our economic hedges for the MSRs may not continue if the spread between short-term and long-term rates decreases, or there are other changes in the market for mortgage forwards that affect the implied carry.

The total carrying value of our residential and commercial MSRs was $14.4 billion and $13.7 billion at December 31, 2016 and 2015, respectively. The weighted-average note rate on our portfolio of loans serviced for others was 4.26% and 4.37% at December 31, 2016 and 2015, respectively. The carrying value of our total MSRs represented 0.85% and 0.77% of mortgage loans serviced for others at December 31, 2016 and 2015, respectively.

As part of our mortgage banking activities, we enter into commitments to fund residential mortgage loans at specified times in the future. A mortgage loan commitment is an interest rate lock that binds us to lend funds to a potential borrower at a specified interest rate and within a specified period of time, generally up to 60 days after inception of the rate lock. These loan commitments are derivative loan commitments if the loans that will result from the exercise of the commitments will be held for sale. These derivative loan commitments are recognized at fair value on the balance sheet with changes in their fair values recorded as part of mortgage banking noninterest income. The fair value of these commitments include, at inception and during the life of the loan commitment, the expected net future cash flows related to the associated servicing of the loan as part of the fair value measurement of derivative loan commitments. Changes subsequent to inception are based on changes in fair value of the underlying loan resulting from the exercise of the commitment and changes in the probability that the loan will not fund within the terms of the commitment, referred to as a fall-out factor. The value of the underlying loan commitment is affected by changes in interest rates and the passage of time.

Outstanding derivative loan commitments expose us to the risk that the price of the mortgage loans underlying the commitments might decline due to increases in mortgage interest rates from inception of the rate lock to the funding of the loan. To minimize this risk, we employ mortgage forwards and options, Eurodollar futures and options, and Treasury futures, forwards and options contracts as economic hedges against the potential decreases in the values of the loans. We expect that these derivative financial instruments will experience changes in fair value that will either fully or partially offset the changes in fair value of the derivative loan commitments. However, changes in investor demand, such as concerns about credit risk, can also cause changes in the spread relationships between underlying loan value and the derivative financial instruments that cannot be hedged.

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

Table 40 presents total revenue from trading activities.

Table 40: Net Gains (Losses) from Trading Activities

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Interest income (1)	**$ 2,506**	1,971	1,685
Less: Interest expense (2)	**354**	357	382
Net interest income	**2,152**	1,614	1,303
Noninterest income:			
Net gains (losses) from trading activities (3):			
Customer accommodation	**828**	806	924
Economic hedges and other (4)	**6**	(192)	237
Total net gains from trading activities	**834**	614	1,161
Total trading-related net interest and noninterest income	**$ 2,986**	2,228	2,464

(1) Represents interest and dividend income earned on trading securities.
(2) Represents interest and dividend expense incurred on trading securities we have sold but have not yet purchased.
(3) Represents realized gains (losses) from our trading activity and unrealized gains (losses) due to changes in fair value of our trading positions, attributable to the type of business activity.
(4) Excludes economic hedging of mortgage banking and asset/liability management activities, for which hedge results (realized and unrealized) are reported with the respective hedged activities.

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

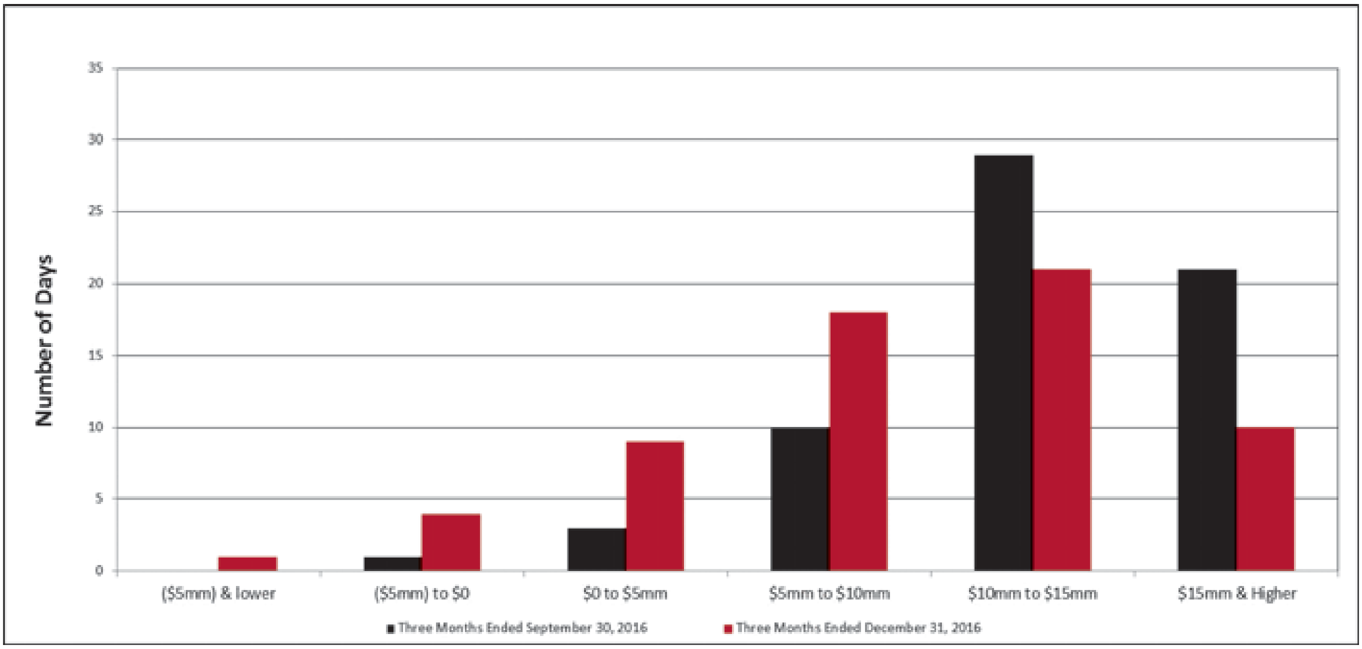
In our customer accommodation trading, we serve as intermediary between buyer and seller. For example, we may purchase or sell a derivative to a customer who wants to manage interest rate risk exposure. We typically enter into offsetting derivative or security positions with a separate counterparty or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

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

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

Daily Trading-Related Revenue Table 41 provides information on the distribution of daily trading-related revenues for the Company's trading portfolio. This trading-related revenue is defined as the change in value of the trading assets and trading liabilities, trading-related net interest income, and trading-related intra-day gains and losses. Net trading-related revenue does not include activity related to long-term positions held for economic hedging purposes, period-end adjustments, and other activity not representative of daily price changes driven by market factors.

Table 41: Distribution of Daily Trading-Related Revenues



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

The Company uses value-at-risk (VaR) metrics complemented with sensitivity analysis and stress testing in measuring and monitoring market risk. These market risk measures are monitored at both the business unit level and at aggregated levels on a daily basis. Our corporate market risk management function aggregates and monitors all exposures to ensure risk measures are within our established risk appetite. Changes to the market risk profile are analyzed and reported on a daily basis. The Company monitors various market risk exposure measures from a variety of perspectives, including line of business, product, risk type, and legal entity.

VaR is a statistical risk measure used to estimate the potential loss from adverse moves in the financial markets. The VaR measures assume that historical changes in market values (historical simulation analysis) are representative of the potential future outcomes and measure the expected loss over a given time interval (for example, 1 day or 10 days) at a given confidence level. Our historical simulation analysis approach uses historical observations of daily changes in each of the market risk factors from each trading day in the previous 12 months. The risk drivers of each market risk exposure are updated on a daily basis. We measure and report VaR for 1-day and 10-day holding periods at a 99% confidence level. This means we would expect to incur single day losses greater than predicted by VaR estimates for the measured positions one time in every 100 trading days. We treat data from all historical periods as equally relevant and consider using data for the previous 12 months as appropriate for determining VaR. We believe using a 12-month look back period helps ensure the Company's VaR is responsive to current market conditions.

VaR measurement between different financial institutions is not readily comparable due to modeling and assumption differences from company to company. VaR measures are more useful when interpreted as an indication of trends rather than an absolute measure to be compared across financial institutions. VaR models are subject to limitations which include, but are not limited to, the use of historical changes in market factors that may not accurately reflect future changes in market factors, and the inability to predict market liquidity in extreme market conditions. All limitations such as model inputs, model assumptions, and calculation methodology risk are monitored by the Corporate Market Risk Group and the Corporate Model Risk Group.

The VaR models measure exposure to the following categories:

- credit risk - exposures from corporate credit spreads, asset-backed security spreads, and mortgage prepayments.
- interest rate risk - exposures from changes in the level, slope, and curvature of interest rate curves and the volatility of interest rates.
- equity risk - exposures to changes in equity prices and volatilities of single name, index, and basket exposures.
- commodity risk - exposures to changes in commodity prices and volatilities.
- foreign exchange risk - exposures to changes in foreign exchange rates and volatilities.

VaR is a primary market risk management measure for assets and liabilities classified as trading positions and is used as a supplemental analysis tool to monitor exposures classified as available for sale (AFS) and other exposures that we carry at fair value.

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

Table 42 shows the Company's Trading General VaR by risk category. As presented in the table, average Company Trading General VaR was $23 million for the quarter ended December 31, 2016, compared with $22 million for the quarter ended September 30, 2016. The increase was primarily driven by changes in portfolio composition.

Table 42: Trading 1-Day 99% General VaR by Risk Category

	Quarter ended							
	December 31, 2016				September 30, 2016			
(in millions)	**Period end**	**Average**	**Low**	**High**	Period end	Average	Low	High
Company Trading General VaR Risk Categories								
Credit	**$ 20**	**21**	**14**	**32**	15	17	14	20
Interest rate	**13**	**15**	**8**	**23**	12	11	5	17
Equity	**14**	**14**	**13**	**16**	16	16	15	17
Commodity	**1**	**2**	**1**	**4**	1	2	1	3
Foreign exchange	**0**	**1**	**0**	**14**	1	1	1	2
Diversification benefit (1)	**(25)**	**(30)**			(22)	(25)		
Company Trading General VaR	**$ 23**	**23**			23	22		

(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.

Sensitivity Analysis Given the inherent limitations of the VaR models, the Company uses other measures, including sensitivity analysis, to measure and monitor risk. Sensitivity analysis is the measure of exposure to a single risk factor, such as a 0.01% increase in interest rates or a 1% increase in equity prices. We conduct and monitor sensitivity on interest rates, credit spreads, volatility, equity, commodity, and foreign exchange exposure. Sensitivity analysis complements VaR as it provides an indication of risk relative to each factor irrespective of historical market moves.

Stress Testing While VaR captures the risk of loss due to adverse changes in markets using recent historical market data, stress testing is designed to capture the Company's exposure to extreme but low probability market movements. Stress scenarios estimate the risk of losses based on management's assumptions of abnormal but severe market movements such as severe credit spread widening or a large decline in equity prices. These scenarios assume that the market moves happen instantaneously and no repositioning or hedging activity takes place to mitigate losses as events unfold (a conservative approach since experience demonstrates otherwise).

An inventory of scenarios is maintained representing both historical and hypothetical stress events that affect a broad range of market risk factors with varying degrees of correlation and differing time horizons. Hypothetical scenarios assess the impact of large movements in financial variables on portfolio values. Typical examples include a 1% (100 basis point) increase across the yield curve or a 10% decline in equity market indexes. Historical scenarios utilize an event-driven approach: the stress scenarios are based on plausible but rare events, and the analysis addresses how these events might affect the risk factors relevant to a portfolio.

The Company's stress testing framework is also used in calculating results in support of the Federal Reserve Board's Comprehensive Capital Analysis and Review (CCAR) and internal stress tests. Stress scenarios are regularly reviewed and updated to address potential market events or concerns. For more detail on the CCAR process, see the "Capital Management" section in this Report.

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

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

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

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

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

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

Table 43 shows the General VaR measure categorized by major risk categories. Average 10-day Company Regulatory General VaR was $29 million for the quarter ended December 31, 2016, compared with $13 million for the quarter ended September 30, 2016. The increase was mainly driven by a rise in market volatility in the fourth quarter and changes in portfolio composition.

Table 43: Regulatory 10-Day 99% General VaR by Risk Category

	Quarter ended							
	December 31, 2016				September 30, 2016			
(in millions)	**Period end**	**Average**	**Low**	**High**	Period end	Average	Low	High
Wholesale Regulatory General VaR Risk Categories								
Credit	**$ 47**	**49**	**20**	**83**	30	27	20	33
Interest rate	**28**	**36**	**21**	**55**	28	26	9	43
Equity	**3**	**4**	**2**	**8**	4	2	0	5
Commodity	**6**	**9**	**4**	**23**	5	7	4	13
Foreign exchange	**3**	**4**	**1**	**25**	2	2	1	4
Diversification benefit (1)	**(69)**	**(75)**			(49)	(51)		
Wholesale Regulatory General VaR	**$ 18**	**27**	**15**	**49**	20	13	7	21
Company Regulatory General VaR	**21**	**29**	**16**	**52**	20	13	6	24

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

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

Total VaR (as presented in Table 44) is composed of General VaR and Specific Risk and uses the previous 12 months of historical market data in accordance with regulatory requirements.

Total Stressed VaR (as presented in Table 44) uses a historical period of significant financial stress over a continuous 12 month period using historically available market data and is composed of Stressed General VaR and Stressed Specific Risk. Total Stressed VaR uses the same methodology and models as Total VaR.

Incremental Risk Charge (as presented in Table 44) captures losses due to both issuer default and migration risk at the 99.9% confidence level over the one-year capital horizon under the assumption of constant level of risk or a constant position assumption. The model covers all non-securitized credit-sensitive products.

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

Table 44 provides information on Total VaR, Total Stressed VaR and the Incremental Risk Charge results for the quarter ended December 31, 2016. Incremental Risk Charge uses the higher of the quarterly average or the quarter end result. For the fourth quarter, the required capital for market risk equals the quarter end result.

Table 44: Market Risk Regulatory Capital Modeled Components

	Quarter ended December 31, 2016				December 31, 2016	
(in millions)	Average	Low	High	Quarter end	Risk-based capital (1)	Risk-weighted assets (1)
Total VaR	$ 82	63	103	70	247	3,091
Total Stressed VaR	378	280	472	353	1,135	14,183
Incremental Risk Charge	201	148	262	217	217	2,710

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

Securitized Products Charge Basel III requires a separate market risk capital charge for positions classified as a securitization or re-securitization. The primary criteria for classification as a securitization are whether there is a transfer of risk and whether the credit risk associated with the underlying exposures has been separated into at least two tranches reflecting different levels of seniority. Covered trading securitizations positions include consumer and commercial asset-backed securities (ABS), commercial mortgage-backed securities (CMBS), residential mortgage-backed securities (RMBS), and collateralized loan and other debt obligations (CLO/CDO) positions. The securitization capital requirements are the greater of the capital requirements of the net long or short exposure, and are capped at the maximum loss that could be incurred on any given transaction.

Table 45 shows the aggregate net fair market value of securities and derivative securitization positions by exposure type that meet the regulatory definition of a covered trading securitization position at December 31, 2016 and 2015.

Table 45: Covered Securitization Positions by Exposure Type (Net Market Value)

(in millions)	ABS	CMBS	RMBS	CLO/CDO
December 31, 2016				
Securitization exposure:				
Securities	**$ 801**	**397**	**911**	**791**
Derivatives	**3**	**4**	**1**	**(8)**
Total	**$ 804**	**401**	**912**	**783**
December 31, 2015				
Securitization Exposure:				
Securities	$ 962	402	571	667
Derivatives	15	6	2	(21)
Total	$ 977	408	573	646

Securitization Due Diligence and Risk Monitoring The market risk capital rule requires that the Company conduct due diligence on the risk of each position within three days of the purchase of a securitization position. The Company's due diligence seeks to provide an understanding of the features that would materially affect the performance of a securitization or re-securitization. The due diligence analysis is re-performed on a quarterly basis for each securitization and re-securitization position. The Company uses an automated solution to track the due diligence associated with securitization activity. The Company aims to manage the risks associated with securitization and re-securitization positions through the use of offsetting positions and portfolio diversification.

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

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

Table 46 summarizes the market risk-based capital requirements charge and market RWAs in accordance with the Basel III market risk capital rule as of December 31, 2016 and 2015. The market RWAs are calculated as the sum of the components in the table below.

Table 46: Market Risk Regulatory Capital and RWAs

	December 31, 2016		December 31, 2015	
(in millions)	Risk-based capital	Risk-weighted assets	Risk-based capital	Risk-weighted assets
Total VaR	$ 247	3,091	188	2,350
Total Stressed VaR	1,135	14,183	773	9,661
Incremental Risk Charge	217	2,710	309	3,864
Securitized Products Charge	561	7,007	616	7,695
Standardized Specific Risk Charge	1,357	16,962	1,048	13,097
De minimis Charges (positions not included in models)	11	147	19	243
Total	$ 3,528	44,100	2,953	36,910

RWA Rollforward Table 47 depicts the changes in market risk regulatory capital and RWAs under Basel III for the full year and fourth quarter of 2016.

Table 47: Analysis of Changes in Market Risk Regulatory Capital and RWAs

(in millions)	Risk-based capital	Risk-weighted assets
Balance, December 31, 2015	$ 2,953	36,910
Total VaR	59	741
Total Stressed VaR	362	4,520
Incremental Risk Charge	(92)	(1,152)
Securitized Products Charge	(55)	(693)
Standardized Specific Risk Charge	309	3,862
De minimis Charges	(8)	(88)
Balance, December 31, 2016	$ 3,528	44,100
Balance, September 30, 2016	$ 3,604	45,054
Total VaR	(45)	(562)
Total Stressed VaR	147	1,836
Incremental Risk Charge	(42)	(527)
Securitized Products Charge	(54)	(676)
Standardized Specific Risk Charge	(0)	(1)
De minimis Charges	(82)	(1,024)
Balance, December 31, 2016	$ 3,528	44,100

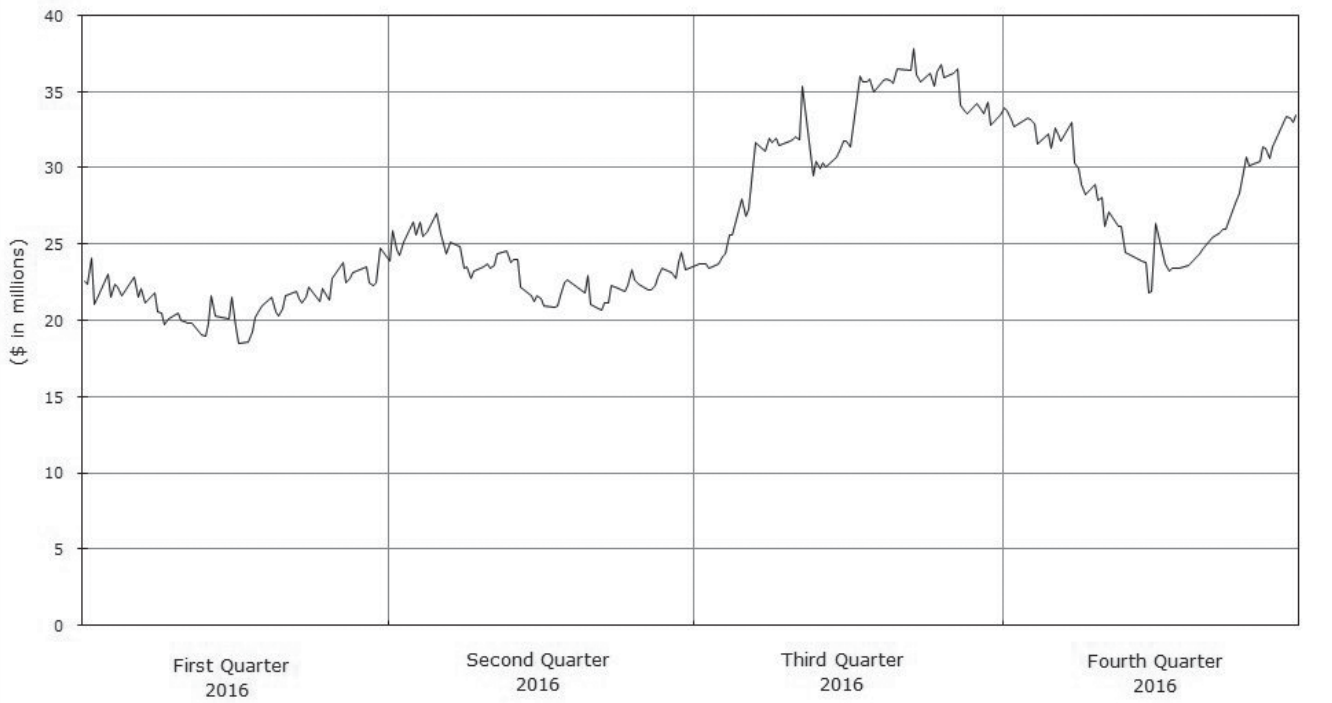
The largest contributor to the changes to market risk regulatory capital and RWAs for fourth quarter 2016 was associated with changes in positions due to normal trading activity. The increase in RWAs in 2016 was primarily related to index trading activity.

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

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

Table 48 shows daily Total VaR (1-day, 99%) used for regulatory market risk capital backtesting for the 12 months ended December 31, 2016. The Company's average Total VaR for fourth quarter 2016 was $29 million with a low of $22 million and a high of $34 million. The increase in Total 1-day VaR in third quarter 2016 was attributable to equity trading activity.

Table 48: Daily Total 1-Day 99% VaR Measure (Rolling 12 Months)



Market Risk Governance The Board's Finance Committee has primary oversight over market risk-taking activities of the Company and reviews the acceptable market risk appetite. Our management-level Market Risk Committee, which reports to the Board's Finance Committee, is responsible for governance and oversight of market risk-taking activities across the Company as well as the establishment of market risk appetite and associated limits. The Corporate Market Risk Group, within Corporate Risk, administers and monitors compliance with the requirements established by the Market Risk Committee. The Corporate Market Risk Group has oversight responsibilities in identifying, measuring and monitoring the Company's market risk. The group is responsible for developing corporate market risk policy, creating quantitative market risk models, establishing independent risk limits, calculating and analyzing market risk capital, and reporting aggregated and line-of-business market risk information. Limits are regularly reviewed to ensure they remain relevant and within the market risk appetite for the Company. An automated limits-monitoring system enables a daily comprehensive review of multiple limits mandated across businesses. Limits are set with inner boundaries that will be periodically breached to promote an ongoing dialogue of risk exposure within the Company. Each line of business that exposes the Company to market risk has direct responsibility for managing market risk in accordance with defined risk tolerances and approved market risk mandates and hedging strategies. We measure and monitor market risk for both management and regulatory capital purposes.

Model Risk Management The market risk capital models are governed by our Corporate Model Risk Committee policies and procedures, which include model validation. The purpose of model validation includes ensuring models are appropriate for their intended use and that appropriate controls exist to help mitigate the risk of invalid results. Model validation assesses the adequacy and appropriateness of the model, including reviewing its key components such as inputs, processing components, logic or theory, output results and supporting model documentation. Validation also includes ensuring significant unobservable model inputs are appropriate given observable market transactions or other market data within the same or similar asset classes. This ensures modeled approaches are appropriate given similar product valuation techniques and are in line with their intended purpose.

The Corporate Model Risk Group provides oversight of model validation and assessment processes. Corporate oversight responsibilities include evaluating the adequacy of business unit model risk management programs, maintaining company-wide model validation policies and standards, and reporting the results of these activities to management. In addition to the corporate-level review, all internal valuation models are subject to ongoing review by business-unit-level management.

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

In conjunction with the March 2008 initial public offering (IPO) of Visa, Inc. (Visa), we received approximately 20.7 million shares of Visa Class B common stock, which was apportioned to member banks of Visa at the time of the IPO. To manage our exposure to Visa and realize the value of the appreciated Visa shares, we incrementally sold these shares through a series of sales over the past few years, thereby eliminating this position as of September 30, 2015. As part of these sales, we agreed to compensate the buyer for any additional contributions to a litigation settlement fund for the litigation matters associated with the Class B shares we sold. Our exposure to this retained litigation risk has been reflected on our balance sheet. For additional information about the associated litigation matters, see the "Interchange Litigation" section in Note 15 (Legal Actions) to Financial Statements in this Report as supplemented by Note 11 (Legal Actions) to Financial Statements in our 2017 Quarterly Reports on Form 10-Q.

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

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

Table 49 provides information regarding our nonmarketable and marketable equity investments as of December 31, 2016 and 2015.

Table 49: Nonmarketable and Marketable Equity Investments

(in millions)	**Dec 31, 2016**	Dec 31, 2015
Nonmarketable equity investments:		
Cost method:		
Federal bank stock	**$ 6,407**	4,814
Private equity	**1,465**	1,626
Auction rate securities	**525**	595
Total cost method	**8,397**	7,035
Equity method:		
LIHTC (1)	**9,714**	8,314
Private equity	**3,635**	3,300
Tax-advantaged renewable energy	**2,054**	1,625
New market tax credit and other	**305**	408
Total equity method	**15,708**	13,647
Fair value (2)	**3,275**	3,065
Total nonmarketable equity investments (3)	**$ 27,380**	23,747
Marketable equity securities:		
Cost	**$ 706**	1,058
Net unrealized gains	**505**	579
Total marketable equity securities (4)	**$ 1,211**	1,637

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

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

Liquidity Standards On September 3, 2014, the FRB, OCC and FDIC issued a final rule that implements a quantitative liquidity requirement consistent with the liquidity coverage ratio (LCR) established by the Basel Committee on Banking Supervision (BCBS). The rule requires banking institutions, such as Wells Fargo, to hold high-quality liquid assets, such as central bank reserves and government and corporate debt that can be converted easily and quickly into cash, in an amount equal to or greater than its projected net cash outflows during a 30-day stress period. The rule is applicable to the Company on a consolidated basis and to our insured depository institutions with total assets greater than $10 billion. In addition, the FRB finalized rules imposing enhanced liquidity management standards on large bank holding companies (BHC) such as Wells Fargo, and has finalized a rule that requires large bank holding companies to publicly disclose on a quarterly basis beginning April 1, 2017, certain quantitative and qualitative information regarding their LCR calculations.

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

Liquidity Sources We maintain liquidity in the form of cash, cash equivalents and unencumbered high-quality, liquid securities. These assets make up our primary sources of liquidity which are presented in Table 50. Our cash is predominantly on deposit with the Federal Reserve. Securities included as part of our primary sources of liquidity are comprised of U.S. Treasury and federal agency debt, and mortgage-backed securities issued by federal agencies within our investment securities portfolio. We believe these securities provide quick sources of liquidity through sales or by pledging to obtain financing, regardless of market conditions. Some of these securities are within the held-to-maturity portion of our investment securities portfolio and as such are not intended for sale but may be pledged to obtain financing. Some of the legal entities within our consolidated group of companies are subject to various regulatory, tax, legal and other restrictions that can limit the transferability of their funds. We believe we maintain adequate liquidity for these entities in consideration of such funds transfer restrictions.

Table 50: Primary Sources of Liquidity

	December 31, 2016			December 31, 2015		
(in millions)	**Total**	**Encumbered**	**Unencumbered**	Total	Encumbered	Unencumbered
Interest-earning deposits	**$ 200,671**	**—**	**200,671**	220,409	—	220,409
Securities of U.S. Treasury and federal agencies	**70,898**	**1,160**	**69,738**	81,417	6,462	74,955
Mortgage-backed securities of federal agencies	**205,655**	**52,672**	**152,983**	132,967	74,778	58,189
Total	**$ 477,224**	**53,832**	**423,392**	434,793	81,240	353,553

In addition to our primary sources of liquidity shown in Table 50, liquidity is also available through the sale or financing of other securities including trading and/or available-for-sale securities, as well as through the sale, securitization or financing of loans, to the extent such securities and loans are not encumbered. In addition, other securities in our held-to-maturity portfolio, to the extent not encumbered, may be pledged to obtain financing.

Deposits have historically provided a sizeable source of relatively low-cost funds. At December 31, 2016, deposits were 135% of total loans compared with 133% at December 31, 2015. Additional funding is provided by long-term debt and short-term borrowings.

Table 51 shows selected information for short-term borrowings, which generally mature in less than 30 days.

Table 51: Short-Term Borrowings

					Quarter ended
(in millions)	Dec 31, 2016	Sep 30, 2016	Jun 30, 2016	Mar 31, 2016	Dec 31, 2015
Balance, period end					
Federal funds purchased and securities sold under agreements to repurchase	$ 78,124	108,468	104,812	92,875	82,948
Commercial paper	120	123	154	519	334
Other short-term borrowings	18,537	16,077	15,292	14,309	14,246
Total	$ 96,781	124,668	120,258	107,703	97,528
Average daily balance for period					
Federal funds purchased and securities sold under agreements to repurchase	$ 107,271	101,252	97,702	93,502	88,949
Commercial paper	121	137	326	442	414
Other short-term borrowings	17,306	14,839	13,820	13,913	13,552
Total	$ 124,698	116,228	111,848	107,857	102,915
Maximum month-end balance for period					
Federal funds purchased and securities sold under agreements to repurchase (1)	$ 109,645	108,468	104,812	98,718	89,800
Commercial paper (2)	121	138	451	519	461
Other short-term borrowings (3)	18,537	16,077	15,292	14,593	14,246

(1) Highest month-end balance in each of the last five quarters was in October 2016, September, June and February 2016, and October 2015.
(2) Highest month-end balance in each of the last five quarters was in November 2016, July, April and March 2016, and November 2015.
(3) Highest month-end balance in each of the last five quarters was in December 2016, September, June and February 2016, and December 2015.

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.

Parent Under SEC rules, our Parent is classified as a "well-known seasoned issuer," which allows it to file a registration statement that does not have a limit on issuance capacity. In May 2014, the Parent filed a registration statement with the SEC for the issuance of senior and subordinated notes, preferred stock and other securities. In February 2017, the Parent filed a registration statement with the SEC for the issuance of senior and subordinated notes, preferred stock and other securities, which will replace the registration statement filed in May 2014. The Parent's ability to issue debt and other securities under this registration statement is limited by the debt issuance authority granted by the Board. As of December 31, 2016, the Parent was authorized by the Board to issue $50 billion in outstanding short-term debt and $180 billion in outstanding long-term debt. These authorized limits include short-term and long-term debt issued to affiliates. At December 31, 2016, the Parent had available $29.3 billion in short-term debt issuance authority and $36.9 billion in long-term debt issuance authority. In 2016, the Parent issued $30.6 billion of senior notes, of which $22.3 billion were registered with the SEC, and $4.0 billion of subordinated notes, all of which were registered with the SEC. In addition, in January and February 2017, the Parent issued $9.8 billion of senior notes, $7.0 billion of which were registered with the SEC.

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

Wells Fargo Bank, N.A. Wells Fargo Bank, N.A. is authorized by its board of directors to issue $100 billion in outstanding short-term debt and $125 billion in outstanding long-term debt. At December 31, 2016, Wells Fargo Bank, N.A. had available $99.9 billion in short-term debt issuance authority and $24.9 billion in long-term debt issuance authority. In April 2015, Wells Fargo Bank, N.A. established a $100 billion bank note program under which, subject to any other debt outstanding under the limits described above, it may issue $50 billion in outstanding short-term senior notes and $50 billion in outstanding long-term senior or subordinated notes. At December 31, 2016, Wells Fargo Bank, N.A. had remaining issuance capacity under the bank note program of $50.0 billion in short-term senior notes and $36.0 billion in long-term senior or subordinated notes. In 2016, Wells Fargo Bank, N.A. issued $15.3 billion of unregistered senior notes, of which $14.0 billion were issued under the bank note program. In addition, during 2016, Wells Fargo Bank, N.A. executed advances of $40.1 billion with the Federal Home Loan Bank of Des Moines, and as of December 31, 2016, Wells Fargo Bank, N.A. had outstanding advances of $77.1 billion across the Federal Home Loan Bank System.

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

On October 4, 2016, Fitch Ratings ("Fitch") affirmed the Company's ratings and revised the rating outlook to negative from stable. Fitch noted that the outlook was revised given the uncertain impact to the Company's franchise following the regulatory settlements regarding sales practices in the retail bank. On October 18, 2016, Standard and Poor's (S&P) also affirmed the Company's ratings and revised the rating outlook to negative from stable, noting similar concerns. On November 3, 2016, DBRS confirmed the Company's ratings and revised the trend on all long-term debt ratings to negative from stable in light of considerations related to the sales practices issues. Both the Parent and Wells Fargo Bank, N.A. remain among the top-rated financial firms in the U.S.

See the "Risk Factors" section in this Report 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 16 (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 December 31, 2016, are presented in Table 52.

Table 52: Credit Ratings as of December 31, 2016

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

* middle **high

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

Capital Management

We have an active program for managing capital through a comprehensive process for assessing the Company's overall capital adequacy. Our objective is to maintain capital at an amount commensurate with our risk profile and risk tolerance objectives, and to meet both regulatory and market expectations. We primarily fund our capital needs through the retention of earnings net of both dividends and share repurchases, as well as through the issuance of preferred stock and long and short-term debt. Retained earnings increased $12.2 billion from December 31, 2015, predominantly from Wells Fargo net income of $21.9 billion, less common and preferred stock dividends of $9.3 billion. During 2016, we issued 83.6 million shares of common stock. In January 2016, we issued 40 million Depositary Shares, each representing a 1/1,000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series W, for an aggregate public offering price of $1.0 billion. In June 2016, we issued 46 million Depositary Shares, each representing a 1/1,000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series X, for an aggregate public offering price of $1.2 billion. During 2016, we repurchased 159.6 million shares of common stock in open market transactions, private transactions and from employee benefit plans, at a cost of $7.9 billion. We also entered into a $750 million forward repurchase contract with an unrelated third party in fourth quarter 2016 that settled in first quarter 2017 for 14.7 million shares. In addition, we entered into a $750 million forward repurchase contract with an unrelated third party in January 2017 that is expected to settle in second quarter 2017 for approximately 14 million shares. For additional information about our forward repurchase agreements, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

Regulatory Capital Guidelines

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

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

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

credit growth is contributing to an increase in systemic risk;
- a minimum tier 1 leverage ratio of 4.0%; and
- a minimum supplementary leverage ratio (SLR) of 5.0% (comprised of a 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) for large and internationally active bank holding companies (BHCs).

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

Because the Company has been designated as a G-SIB, we will also be subject to the FRB's rule implementing the additional capital surcharge of between 1.0-4.5% on G-SIBs. Under the rule, we must annually calculate our surcharge under two methods and use the higher of the two surcharges. The first method (method one) will consider our size, interconnectedness, cross-jurisdictional activity, substitutability, and complexity, consistent with a methodology developed by the BCBS and the Financial Stability Board (FSB). The second (method two) will use similar inputs, but will replace substitutability with use of short-term wholesale funding and will generally result in higher surcharges than the BCBS methodology. The phase-in period for the G-SIB surcharge began on January 1, 2016 and will become fully effective on January 1, 2019. Based on year-end 2015 data, our 2017 G-SIB surcharge under method two is 2.0% of the Company's RWAs, which is the higher of method one and method two. Because the G-SIB surcharge is calculated annually based on data that can differ over time, the amount of the surcharge is subject to change in future years. Under the Standardized Approach (fully phased-in), our CET1 ratio of 10.77% exceeded the minimum of 9.0% by 177 basis points at December 31, 2016.

The tables that follow provide information about our risk-based capital and related ratios as calculated under Basel III capital guidelines. For banking industry regulatory reporting purposes, we report our capital in accordance with Transition Requirements but are managing our capital based on a fully phased-in calculation. For information about our capital requirements calculated in accordance with Transition Requirements, see Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Table 53 summarizes our CET1, tier 1 capital, total capital, risk-weighted assets and capital ratios on a fully phased-in basis at December 31, 2016 and December 31, 2015. As of December 31, 2016, our CET1 and tier 1 capital ratios were lower using RWAs calculated under the Standardized Approach.

Table 53: Capital Components and Ratios (Fully Phased-In) (1)

		December 31, 2016		December 31, 2015	
(in millions)		Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Common Equity Tier 1	(A)	$ 146,424	146,424	142,367	142,367
Tier 1 Capital	(B)	169,063	169,063	162,810	162,810
Total Capital	(C)	200,344	210,796	190,374	200,750
Risk-Weighted Assets	(D)	1,298,688	1,358,933	1,282,849	1,321,703
Common Equity Tier 1 Capital Ratio	(A)/(D)	11.27%	10.77 *	11.10	10.77 *
Tier 1 Capital Ratio	(B)/(D)	13.02	12.44 *	12.69	12.32 *
Total Capital Ratio	(C)/(D)	15.43 *	15.51	14.84 *	15.19

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

(1) Fully phased-in regulatory capital amounts, ratios and RWAs are considered non-GAAP financial measures that are used by management, bank regulatory agencies, investors and analysts to assess and monitor the Company's capital position. See Table 54 for information regarding the calculation and components of CET1, tier 1 capital, total capital and RWAs, as well as the corresponding reconciliation of our regulatory capital amounts to GAAP financial measures.

Table 54 provides information regarding the calculation and composition of our risk-based capital under the Advanced and Standardized Approaches at December 31, 2016 and December 31, 2015.

Table 54: Risk-Based Capital Calculation and Components

(in millions)			December 31, 2016 Advanced Approach	December 31, 2016 Standardized Approach	December 31, 2015 Advanced Approach	December 31, 2015 Standardized Approach
Total equity		$	**200,497**	**200,497**	193,891	193,891
Adjustments:						
Preferred stock			**(24,551)**	**(24,551)**	(22,214)	(22,214)
Additional paid-in capital on ESOP preferred stock			**(126)**	**(126)**	(110)	(110)
Unearned ESOP shares			**1,565**	**1,565**	1,362	1,362
Noncontrolling interests			**(916)**	**(916)**	(893)	(893)
Total common stockholders' equity			**176,469**	**176,469**	172,036	172,036
Adjustments:						
Goodwill			**(26,693)**	**(26,693)**	(25,529)	(25,529)
Certain identifiable intangible assets (other than MSRs)			**(2,723)**	**(2,723)**	(3,167)	(3,167)
Other assets (1)			**(2,088)**	**(2,088)**	(2,074)	(2,074)
Applicable deferred taxes (2)			**1,772**	**1,772**	2,071	2,071
Investment in certain subsidiaries and other			**(313)**	**(313)**	(970)	(970)
Common Equity Tier 1 (Fully Phased-In)			**146,424**	**146,424**	142,367	142,367
Effect of Transition Requirements			**2,361**	**2,361**	1,880	1,880
Common Equity Tier 1 (Transition Requirements)		$	**148,785**	**148,785**	144,247	144,247
Common Equity Tier 1 (Fully Phased-In)		$	**146,424**	**146,424**	142,367	142,367
Preferred stock			**24,551**	**24,551**	22,214	22,214
Additional paid-in capital on ESOP preferred stock			**126**	**126**	110	110
Unearned ESOP shares			**(1,565)**	**(1,565)**	(1,362)	(1,362)
Other			**(473)**	**(473)**	(519)	(519)
Total Tier 1 capital (Fully Phased-In)	(A)		**169,063**	**169,063**	162,810	162,810
Effect of Transition Requirements			**2,301**	**2,301**	1,774	1,774
Total Tier 1 capital (Transition Requirements)		$	**171,364**	**171,364**	164,584	164,584
Total Tier 1 capital (Fully Phased-In)		$	**169,063**	**169,063**	162,810	162,810
Long-term debt and other instruments qualifying as Tier 2			**29,465**	**29,465**	25,818	25,818
Qualifying allowance for credit losses (3)			**2,088**	**12,540**	2,136	12,512
Other			**(272)**	**(272)**	(390)	(390)
Total Tier 2 capital (Fully Phased-In)	(B)		**31,281**	**41,733**	27,564	37,940
Effect of Transition Requirements			**1,780**	**1,780**	3,005	3,005
Total Tier 2 capital (Transition Requirements)		$	**33,061**	**43,513**	30,569	40,945
Total qualifying capital (Fully Phased-In)	(A)+(B)	$	**200,344**	**210,796**	190,374	200,750
Total Effect of Transition Requirements			**4,081**	**4,081**	4,779	4,779
Total qualifying capital (Transition Requirements)		$	**204,425**	**214,877**	195,153	205,529
Risk-Weighted Assets (RWAs) (4)(5):						
Credit risk		$	**960,763**	**1,314,833**	989,639	1,284,793
Market risk			**44,100**	**44,100**	36,910	36,910
Operational risk			**293,825**	**N/A**	256,300	N/A
Total RWAs (Fully Phased-In)		$	**1,298,688**	**1,358,933**	1,282,849	1,321,703
Credit risk		$	**936,664**	**1,292,098**	969,972	1,266,238
Market risk			**44,100**	**44,100**	36,910	36,910
Operational risk			**293,825**	**N/A**	256,300	N/A
Total RWAs (Transition Requirements)		$	**1,274,589**	**1,336,198**	1,263,182	1,303,148

(1) Represents goodwill and other intangibles on nonmarketable equity investments, 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 55 presents the changes in Common Equity Tier 1 under the Advanced Approach for the year ended December 31, 2016.

Table 55: Analysis of Changes in Common Equity Tier 1

(in millions)		
Common Equity Tier 1 (Fully Phased-In) at December 31, 2015	$	142,367
Net income		20,373
Common stock dividends		(7,660)
Common stock issued, repurchased, and stock compensation-related items		(4,797)
Goodwill		(1,164)
Certain identifiable intangible assets (other than MSRs)		444
Other assets (1)		(12)
Applicable deferred taxes (2)		(300)
Investment in certain subsidiaries and other		(2,827)
Change in Common Equity Tier 1		4,057
Common Equity Tier 1 (Fully Phased-In) at December 31, 2016	$	146,424

(1) Represents goodwill and other intangibles on nonmarketable equity investments, 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 56 presents net changes in the components of RWAs under the Advanced and Standardized Approaches for the year ended December 31, 2016.

Table 56: Analysis of Changes in RWAs

(in millions)		Advanced Approach	Standardized Approach
RWAs (Fully Phased-In) at December 31, 2015	$	1,282,849	1,321,703
Net change in credit risk RWAs		(28,876)	30,040
Net change in market risk RWAs		7,190	7,190
Net change in operational risk RWAs		37,525	N/A
Total change in RWAs		15,839	37,230
RWAs (Fully Phased-In) at December 31, 2016		1,298,688	1,358,933
Effect of Transition Requirements		(24,099)	(22,735)
RWAs (Transition Requirements) at December 31, 2016	$	1,274,589	1,336,198

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

- Tangible book value per common share, which represents tangible common equity divided by common shares outstanding.
- Return on average tangible common equity (ROTCE), which represents our annualized earnings contribution as a percentage of tangible common equity.

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

Table 57 provides a reconciliation of these non-GAAP financial measures to GAAP financial measures.

Table 57: Tangible Common Equity

		Balance at period end			Average balance				
		Quarter ended			Quarter ended			Year ended	
(in millions, except ratios)		**Dec 31, 2016**	Sep 30, 2016	Dec 31, 2015	**Dec 31, 2016**	Sep 30, 2016	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015
Total equity		**$ 200,497**	203,958	193,891	**201,247**	203,883	195,025	**200,690**	191,584
Adjustments:									
Preferred stock		**(24,551)**	(24,594)	(22,214)	**(24,579)**	(24,813)	(22,407)	**(24,363)**	(21,715)
Additional paid-in capital on ESOP preferred stock		**(126)**	(130)	(110)	**(128)**	(148)	(127)	**(161)**	(138)
Unearned ESOP shares		**1,565**	1,612	1,362	**1,596**	1,850	1,572	**2,011**	1,716
Noncontrolling interests		**(916)**	(930)	(893)	**(928)**	(927)	(979)	**(936)**	(1,048)
Total common stockholders' equity	(A)	**176,469**	179,916	172,036	**177,208**	179,845	173,084	**177,241**	170,399
Adjustments:									
Goodwill		**(26,693)**	(26,688)	(25,529)	**(26,713)**	(26,979)	(25,580)	**(26,700)**	(25,673)
Certain identifiable intangible assets (other than MSRs)		**(2,723)**	(3,001)	(3,167)	**(2,871)**	(3,145)	(3,317)	**(3,254)**	(3,793)
Other assets (1)		**(2,088)**	(2,230)	(2,074)	**(2,175)**	(2,131)	(1,987)	**(2,117)**	(1,654)
Applicable deferred taxes (2)		**1,772**	1,832	2,071	**1,785**	1,855	2,103	**1,897**	2,248
Tangible common equity	(B)	**$ 146,737**	149,829	143,337	**147,234**	149,445	144,303	**147,067**	141,527
Common shares outstanding	(C)	**5,016.1**	5,023.9	5,092.1	**N/A**	N/A	N/A	**N/A**	N/A
Net income applicable to common stock (3)	(D)	**N/A**	N/A	N/A	**4,872**	5,243	5,203	**20,373**	21,470
Book value per common share	(A)/(C)	**$ 35.18**	35.81	33.78	**N/A**	N/A	N/A	**N/A**	N/A
Tangible book value per common share	(B)/(C)	**29.25**	29.82	28.15	**N/A**	N/A	N/A	**N/A**	N/A
Return on average common stockholders' equity (ROE)	(D)/(A)	**N/A**	N/A	N/A	**10.94 %**	11.60	11.93	**11.49**	12.60
Return on average tangible common equity (ROTCE)	(D)/(B)	**N/A**	N/A	N/A	**13.16**	13.96	14.30	**13.85**	15.17

(1) Represents goodwill and other intangibles on nonmarketable equity investments, 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 becomes effective on January 1, 2018, will require a covered BHC to maintain a SLR of at least 5.0% (comprised of the 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) to avoid restrictions on capital distributions and discretionary bonus payments. The rule will also require that all of our insured depository institutions maintain a SLR of 6.0% under applicable regulatory capital adequacy guidelines. In September 2014, federal banking regulators finalized additional changes to the SLR requirements to implement revisions to the Basel III leverage framework finalized by the BCBS in January 2014. These additional changes, among other things, modify the methodology for including off- balance sheet items, including credit derivatives, repo-style transactions and lines of credit, in the denominator of the SLR, and will become effective on January 1, 2018. At December 31, 2016, our SLR for the Company was 7.5% assuming full phase-in of the Advanced Approach capital framework. Based on our review, our current leverage levels would exceed the applicable requirements for each of our insured depository institutions as well. The fully phased-in SLR is considered a non-GAAP financial measure that is used by management, bank regulatory agencies, investors and analysts to assess and monitor the Company's leverage exposure. See Table 58 for information regarding the calculation and components of the SLR.

Table 58: Fully Phased-In SLR

(in millions, except ratio)		December 31, 2016
Tier 1 capital	$	169,063
Total average assets		1,944,250
Less: deductions from Tier 1 capital		30,398
Total adjusted average assets		1,913,852
Adjustments:		
Derivative exposures		67,889
Repo-style transactions		5,193
Other off-balance sheet exposures		257,363
Total adjustments		330,445
Total leverage exposure	$	2,244,297
Supplementary leverage ratio		7.5%

OTHER REGULATORY CAPITAL MATTERS In December 2016, the FRB finalized rules to address the amount of equity and unsecured long-term debt a U.S. G-SIB must hold to improve its resolvability and resiliency, often referred to as Total Loss Absorbing Capacity (TLAC). Under the rules, which become effective on January 1, 2019, U.S. G-SIBs will be required to have a minimum TLAC amount (consisting of CET1 capital and additional tier 1 capital issued directly by the top-tier or covered BHC plus eligible external long-term debt) equal to the greater of (i) 18% of RWAs and (ii) 7.5% of total leverage exposure (the denominator of the SLR calculation). Additionally, U.S. G-SIBs will be required to maintain (i) a TLAC buffer equal to 2.5% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method one plus any applicable countercyclical buffer that will be added to the 18% minimum and (ii) an external TLAC leverage buffer equal to 2.0% of total leverage exposure that will be added to the 7.5% minimum, in order to avoid restrictions on capital distributions and discretionary bonus payments. The rules will also require U.S. G-SIBs to have a minimum amount of eligible unsecured long-term debt equal to the greater of (i) 6.0% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method two and (ii) 4.5% of the total leverage exposure. In addition, the rules will impose certain restrictions on the operations and liabilities of the top-tier or covered BHC in order to further facilitate an orderly resolution, including prohibitions on the issuance of short-term debt to external investors and on entering into derivatives and certain other types of financial contracts with external counterparties. While the rules permit permanent grandfathering of a significant portion of otherwise ineligible long-term debt that was issued prior to December 31, 2016, long-term debt issued after that date must be fully compliant with the eligibility requirements of the rules in order to count toward the minimum TLAC amount. As a result of the rules, we will be required to issue additional long-term debt.

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

Capital Planning and Stress Testing

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

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

Our 2016 capital plan, which was submitted on April 4, 2016, 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 2016 CCAR, the FRB also generated a supervisory stress test, which assumed a sharp decline in the economy and significant decline in asset pricing using the information provided by the Company to estimate performance. The FRB reviewed the supervisory stress results both as required under the Dodd-Frank Act using a common set of capital actions for all large BHCs and by taking into account the Company's proposed capital actions. The FRB published its supervisory stress test results as required under the Dodd-Frank Act on June 23, 2016. On June 29, 2016, the FRB notified us that it did not object to our capital plan included in the 2016 CCAR.

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 November 2016.

Securities Repurchases

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

In January 2016, the Board authorized the repurchase of 350 million shares of our common stock. At December 31, 2016, we had remaining authority to repurchase approximately 267 million shares, subject to regulatory and legal conditions. For more information about share repurchases during fourth quarter 2016, see Part II, Item 5 in our 2016 Form 10-K.

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

In connection with our participation in the Capital Purchase Program (CPP), a part of the Troubled Asset Relief Program (TARP), we issued to the U.S. Treasury Department warrants to purchase 110,261,688 shares of our common stock with an original exercise price of $34.01 per share expiring on October 28, 2018. The terms of the warrants require the exercise price to be adjusted under certain circumstances when the Company's quarterly common stock dividend exceeds $0.34 per share, which began occurring in second quarter 2014. Accordingly, with each quarterly common stock dividend above $0.34 per share, we must calculate whether an adjustment to the exercise price is required by the terms of the warrants, including whether certain minimum thresholds have been met to trigger an adjustment, and notify the holders of any such change. The Board authorized the repurchase by the Company of up to $1 billion of the warrants. At December 31, 2016, there were 33,101,906 warrants outstanding, exercisable at $33.811 per share, and $452 million of unused warrant repurchase authority. Depending on market conditions, we may purchase from time to time additional warrants in privately negotiated or open market transactions, by tender offer or otherwise.

Regulatory Matters

Since the enactment of the Dodd-Frank Act in 2010, the U.S. financial services industry has been subject to a significant increase in regulation and regulatory oversight initiatives. This increased regulation and oversight has substantially changed how most U.S. financial services companies conduct business and has increased their regulatory compliance costs. The following highlights the more significant regulations and regulatory oversight initiatives that have affected or may affect our business. For additional information about the regulatory matters discussed below and other regulations and regulatory oversight matters, see Part I, Item 1 "Regulation and Supervision" of our 2016 Form 10-K, and the "Capital Management," "Forward-Looking Statements" and "Risk Factors" sections and Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

Dodd-Frank Act

The Dodd-Frank Act is the most significant financial reform legislation since the 1930s and is driving much of the current U.S. regulatory reform efforts. The Dodd-Frank Act and many of its provisions became effective in July 2010 and July 2011. The following provides additional information on the Dodd-Frank Act, including the current status of certain of its rulemaking initiatives.

- *Enhanced supervision and regulation of systemically important firms.* The Dodd-Frank Act grants broad authority to federal banking regulators to establish enhanced supervisory and regulatory requirements for systemically important firms. The FRB has finalized a number of regulations implementing enhanced prudential requirements for large bank holding companies (BHCs) like Wells Fargo regarding risk-based capital and leverage, risk and liquidity management, and imposing debt-to-equity limits on any BHC that regulators determine poses a grave threat to the financial stability of the United States. The FRB and OCC have also finalized rules implementing stress testing requirements for large BHCs and national banks. The FRB has also re-proposed, but not yet finalized, additional enhanced prudential standards that would implement single counterparty credit limits and establish remediation requirements for large BHCs experiencing financial distress. In addition to the authorization of enhanced supervisory and regulatory requirements for systemically important firms, the Dodd-Frank Act also established the Financial Stability Oversight Council and the Office of Financial Research, which may recommend new systemic risk management requirements and require new reporting of systemic risks. The OCC, under separate authority, has also finalized guidelines establishing heightened governance and risk management standards for large national banks such as Wells Fargo Bank, N.A. The OCC guidelines require covered banks to establish and adhere to a written risk governance framework in order to manage and control their risk-taking activities. The guidelines also formalize roles and responsibilities for risk management practices within covered banks and create certain risk oversight responsibilities for their boards of directors.

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

  In addition to these rulemaking activities, the CFPB is continuing its on-going supervisory examination activities of the financial services industry with respect to a number of consumer businesses and products, including mortgage lending and servicing, fair lending requirements, student lending activities, and automobile finance. At this time, the Company cannot predict the full impact of the CFPB's rulemaking and supervisory authority on our business practices or financial results.
- *Volcker Rule.* The Volcker Rule, with limited exceptions, prohibits banking entities from engaging in proprietary trading or owning any interest in or sponsoring or having certain relationships with a hedge fund, a private equity fund or certain structured transactions that are deemed covered funds. On December 10, 2013, federal banking regulators, the SEC and CFTC (collectively, the Volcker supervisory regulators) jointly released a final rule to implement the Volcker Rule's restrictions. Banking entities were required to comply with many of the Volcker Rule's restrictions by July 21, 2015. However, the FRB has extended the rule's compliance date to give banking entities until July 21, 2017, to conform their ownership interests in and sponsorships of covered funds that were in place prior to December 31, 2013. As a banking entity with more than $50 billion in consolidated assets, we are also subject to enhanced compliance program requirements. We expect to have to make divestments in non-conforming funds prior to the extended compliance date for covered funds that were in place prior to December 31, 2013, however we do not anticipate a material impact to our financial results as prohibited proprietary trading and covered fund investment activities are not significant to our financial results.
- *Regulation of swaps and other derivatives activities*. The Dodd-Frank Act established a comprehensive framework for regulating over-the-counter derivatives and authorized the CFTC and the SEC to regulate swaps and security-based swaps, respectively. The CFTC has adopted rules applicable to our provisionally registered swap dealer, Wells Fargo Bank, N.A., that require, among other things, extensive regulatory and public reporting of swaps, central clearing and trading of swaps on exchanges or other multilateral platforms, and compliance with comprehensive internal and external business conduct standards. The SEC is expected to implement parallel rules applicable to security-based swaps. In addition, federal regulators have adopted final rules establishing margin requirements for swaps and security-based swaps not centrally cleared. All of these new rules, as well as others being considered by regulators in other jurisdictions, may negatively impact customer demand for over-the-counter derivatives and may increase our costs for engaging in swaps and other derivatives activities.
- *Changes to asset-backed securities (ABS) markets.* The Dodd-Frank Act requires sponsors of certain ABS to hold at least a 5% ownership stake in the ABS. Federal regulatory agencies have issued final rules to implement this credit risk retention requirement, which included an exemption for, among other things, GSE mortgage backed securities. The final rules may impact our ability to issue certain asset-backed securities or otherwise participate in various securitization transactions.
- *Enhanced regulation of money market mutual funds.* The SEC has adopted a rule governing money market mutual funds that, among other things, requires significant structural changes to these funds, including requiring non-governmental institutional money market funds to maintain a variable net asset value and providing for the imposition of liquidity fees and redemption gates for all non-governmental money market funds during periods in which they experience liquidity impairments of a certain magnitude. Certain of our money market mutual funds have seen a decline in assets under management as a result of these structural changes.
- *Regulation of interchange transaction fees (the Durbin Amendment).* On October 1, 2011, the FRB rule enacted to implement the Durbin Amendment to the Dodd-Frank Act that limits debit card interchange transaction fees to those reasonable and proportional to the cost of the transaction became effective. The rule generally established that the maximum allowable interchange fee that an issuer may receive or charge for an electronic debit transaction is the sum of 21 cents per transaction and 5 basis points multiplied by the value of the transaction. On July 31, 2013, the U.S. District Court for the District of Columbia ruled that the approach used by the FRB in setting the maximum allowable interchange transaction fee impermissibly included costs that were specifically excluded from consideration under the Durbin Amendment. In August 2013, the FRB filed a notice of appeal of the decision to the United States Court of Appeals for the District of Columbia. In March 2014, the Court of Appeals reversed the District

Court's decision, but did direct the FRB to provide further explanation regarding its treatment of the costs of monitoring transactions. The plaintiffs did not file a petition for rehearing with the Court of Appeals but filed a petition for writ of certiorari with the U.S. Supreme Court. In January 2015, the U.S. Supreme Court denied the petition for writ of certiorari.

Regulatory Capital Guidelines and Capital Plans
During 2013, federal banking regulators issued final rules that substantially amended the risk-based capital rules for banking organizations. The rules implement the Basel III regulatory capital reforms in the U.S., comply with changes required by the Dodd-Frank Act, and replace the existing Basel I-based capital requirements. We were required to begin complying with the rules on January 1, 2014, subject to phase-in periods that are scheduled to be fully phased in by January 1, 2022. In 2014, federal banking regulators also finalized rules to impose a supplementary leverage ratio on large BHCs like Wells Fargo and our insured depository institutions and to implement the Basel III liquidity coverage ratio. For more information on the final capital, leverage and liquidity rules, and additional capital requirements applicable to us, see the "Capital Management" section in this Report.

"Living Will" Requirements and Related Matters
Rules adopted by the FRB and the FDIC under the Dodd-Frank Act require large financial institutions, including Wells Fargo, to prepare and periodically revise resolution plans, so-called "living-wills", that would facilitate their resolution in the event of material distress or failure. Under the rules, resolution plans are required to provide strategies for resolution under the Bankruptcy Code and other applicable insolvency regimes that can be accomplished in a reasonable period of time and in a manner that mitigates the risk that failure would have serious adverse effects on the financial stability of the United States. On December 13, 2016, the FRB and FDIC notified us that they had jointly determined that our 2016 resolution plan submission does not adequately remedy two of the three deficiencies identified by the FRB and FDIC in our 2015 resolution plan. We are required to remedy the two deficiencies in a revised submission to be provided to the FRB and FDIC by March 31, 2017 (the "Revised Submission"). The FRB and FDIC may impose more stringent capital, leverage or liquidity requirements on us or restrict our growth, activities or operations until we remedy the deficiencies. Effective as of December 13, 2016, the FRB and FDIC have jointly determined that the Company and its subsidiaries shall be restricted from establishing any foreign bank or foreign branch and from acquiring any nonbank subsidiary until the FRB and FDIC jointly determine that the Revised Submission adequately remedies the deficiencies. If we fail to timely submit the Revised Submission or if the FRB and FDIC jointly determine that the Revised Submission does not adequately remedy the deficiencies, the FRB and FDIC will limit the size of the Company's nonbank and broker-dealer assets to levels in place as of September 30, 2016. If we have not adequately remedied the deficiencies by December 13, 2018, the FRB and FDIC, in consultation with the Financial Stability Oversight Council, may jointly require the Company to divest certain assets or operations. Although we believe our Revised Submission will remedy the two deficiencies, to demonstrate our commitment to the remediation of the deficiencies and the overall resolution planning process, we have implemented actions to limit the size of the Company's nonbank and broker-dealer assets to levels in place as of September 30, 2016, and expect to operate at this level for the foreseeable future.

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

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

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

To facilitate the orderly resolution of systemically important financial institutions in case of material distress or failure, federal banking regulations require that institutions, such as Wells Fargo, maintain a minimum amount of equity and unsecured debt to absorb losses and recapitalize operating subsidiaries. Federal banking regulators have also required measures to facilitate the continued operation of operating subsidiaries notwithstanding the failure of their parent companies, such as limitations on parent guarantees, and have issued guidance encouraging institutions to take legally binding measures to provide capital and liquidity resources to certain subsidiaries in order to facilitate an orderly resolution. In response to the regulators' guidance, Wells Fargo may enter into such binding arrangements in connection with its resolution plan so that the Parent would be committed to make resources available to certain subsidiaries when the Parent or its subsidiaries are in financial distress.

Other Regulatory Related Matters

- *Department of Labor ERISA fiduciary standard.* In April 2016, the U.S. Department of Labor adopted a rule under the Employee Retirement Income Security Act of 1974 (ERISA) that, among other changes and subject to certain exceptions, will as of the applicability date of April 10, 2017 make anyone, including broker-dealers, providing investment advice to retirement investors a fiduciary who must act in the best interest of clients when providing investment advice for direct or indirect compensation to a retirement plan, to a plan fiduciary, participant or beneficiary, or to an investment retirement account (IRA) or IRA holder. The rule may impact the manner in which business is conducted with retirement investors and affect product offerings with respect to retirement plans and IRAs.
- *OCC revocation of relief.* On November 18, 2016, the OCC revoked provisions of certain consent orders that provided Wells Fargo Bank, N.A. relief from specific requirements and limitations regarding rules, policies, and procedures for corporate activities; OCC approval of changes in directors and senior executive officers; and golden parachute payments. As a result, Wells Fargo Bank, N.A. is no longer eligible for expedited treatment for certain applications; is now required to provide prior written notice to the OCC of a change in directors and senior executive officers; and is now subject to certain regulatory limitations on golden parachute payments.

Critical Accounting Policies

Our significant accounting policies (see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report) 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;
- PCI loans;
- the valuation of residential MSRs;
- the fair value of financial instruments; and
- income taxes.

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

Allowance for Credit Losses

We maintain an allowance for credit losses, which consists of the allowance for loan losses and the allowance for unfunded credit commitments, which is management's estimate of credit losses inherent in the loan portfolio, including unfunded credit commitments, at the balance sheet date, excluding loans carried at fair value. For a description of our related accounting policies, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

Changes in the allowance for credit losses and, therefore, in the related provision for credit losses can materially affect net income. In applying the judgment and review required to determine the allowance for credit losses, management considers changes in economic conditions, customer behavior, and collateral value, among other influences. From time to time, economic factors or business decisions, such as the addition or liquidation of a loan product or business unit, may affect the loan portfolio, causing management to provide for or release amounts from the allowance for credit losses. While our methodology attributes portions of the allowance to specific portfolio segments (commercial and consumer), the entire allowance for credit losses is available to absorb credit losses inherent in the total loan portfolio and unfunded credit commitments.

Judgment is specifically applied in:

- *Credit risk ratings applied to individual commercial loans and unfunded credit commitments.* We estimate the probability of default in accordance with the borrower's financial strength using a borrower quality rating and the severity of loss in the event of default using a collateral quality rating. Collectively, these ratings are referred to as credit risk ratings and are assigned to our commercial loans. 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. Commercial loan risk ratings are evaluated based on each situation by experienced senior credit officers and are subject to periodic review by an internal team of credit specialists.
- *Economic assumptions applied to pools of consumer loans (statistically modeled).* Losses are estimated using economic variables to represent our best estimate of inherent loss. Our forecasted losses are modeled using a range of economic scenarios.
- *Selection of a credit loss estimation model that fits the credit risk characteristics of its portfolio.* We use both internally developed and vendor supplied models in this process. We often use expected loss, roll rate, net flow, vintage maturation, behavior score, and time series or statistical trend models, most with economic correlations. Management must use judgment in establishing additional input metrics for the modeling processes, considering further stratification into reference data time series, sub-product, origination channel, vintage, loss type, geographic location and other predictive characteristics. The models used to determine the allowance for credit losses are validated in accordance with Company policies by an internal model validation group.
- *Assessment of limitations to credit loss estimation models.* We apply our judgment to adjust our modeled estimates to reflect other risks that may be identified from current conditions and developments in selected portfolios.
- *Identification and measurement of impaired loans, including loans modified in a TDR.* Our experienced senior credit officers may consider a loan impaired based on their evaluation of current information and events, including loans modified in a TDR. The measurement of impairment is typically based on an analysis of the present value of expected future cash flows. The development of these expectations requires significant management judgment and review.

- *An amount for imprecision or uncertainty which reflects management's overall estimate of the effect of quantitative and qualitative factors on inherent credit losses.* This amount represents management's judgment of risks inherent in the processes and assumptions used in establishing the allowance for credit losses. This imprecision considers economic environmental factors, modeling assumptions and performance, process risk, and other subjective factors, including industry trends and emerging risk assessments.

SENSITIVITY TO CHANGES Table 59 demonstrates the impact of the sensitivity of our estimates on our allowance for credit losses.

Table 59: Allowance Sensitivity Summary

	December 31, 2016	
(in billions)	Estimated increase/(decrease) in allowance	
Assumption:		
Favorable (1)	$	(3.7)
Adverse (2)		8.3

(1) Represents a one risk rating upgrade throughout our commercial portfolio segment and a more optimistic economic outlook for modeled losses on our consumer portfolio segment.
(2) Represents a one risk rating downgrade throughout our commercial portfolio segment, a more pessimistic economic outlook for modeled losses on our consumer portfolio segment, and incremental deterioration for PCI loans.

The sensitivity analyses provided in the previous table are hypothetical scenarios and are not considered probable. They do not represent management's view of inherent losses in the portfolio as of the balance sheet date. Because significant judgment is used, it is possible that others performing similar analyses could reach different conclusions. See the "Risk Management – Credit Risk Management – Allowance for Credit Losses" section and Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report for further discussion of our allowance for credit losses.

Purchased Credit-Impaired (PCI) Loans

Loans acquired with evidence of credit deterioration since their origination and where it is probable that we will not collect all contractually required principal and interest payments are PCI loans. Substantially all of our PCI loans were acquired in the Wachovia acquisition on December 31, 2008. For a description of our related accounting policies, see Note 1 (Summary of Significant Accounting Policies) to Financial Statements in this Report.

We apply judgment for PCI loans in:

- identifying loans that meet the PCI criteria at acquisition based on our evaluation of credit quality deterioration using indicators such as past due and nonaccrual status, commercial risk ratings, recent borrower credit scores and recent loan-to-value percentages.
- determining initial fair value at acquisition, which is based on an estimate of cash flows, both principal and interest, expected to be collected, discounted at the prevailing market rate of interest. We estimate the cash flows expected to be collected at acquisition using our internal credit risk, interest rate risk and prepayment risk models, which incorporate our best estimate of current key assumptions, such as property values, default rates, loss severity and prepayment speeds. Our estimation includes the timing and amount of cash flows expected to be collected.
- regularly evaluating our estimates of cash flows expected to be collected, subsequent to acquisition. These evaluations, performed quarterly, require the continued usage of key assumptions and estimates, similar to our initial estimate of fair value. We must apply judgment to develop our estimates of cash flows for PCI loans given the impact of changes in value of underlying collateral such as home price and property value changes, changing loss severities, modification activity, and prepayment speeds.

The amount of cash flows expected to be collected and, accordingly, the appropriateness of the allowance for loan loss due to certain decreases in cash flows expected to be collected, is particularly sensitive to changes in loan credit quality. The sensitivity of the overall allowance for credit losses, including PCI loans, is presented in the preceding section, "Critical Accounting Policies – Allowance for Credit Losses."

See the "Risk Management – Credit Risk Management – Purchased Credit Impaired Loans" section and Note 6 (Loans and Allowance for Credit Losses – Purchased Credit Impaired Loans) to Financial Statements in this Report for further discussion of PCI loans.

Valuation of Residential Mortgage Servicing Rights (MSRs)

MSRs are assets that represent the rights to service mortgage loans for others. We recognize MSRs when we purchase servicing rights from third parties, or retain servicing rights in connection with the sale or securitization of loans we originate (asset transfers). We also have MSRs acquired in the past under co-issuer agreements that provide for us to service loans that were originated and securitized by third-party correspondents.

We carry our MSRs related to residential mortgage loans at fair value. Periodic changes in our residential MSRs and the economic hedges used to hedge our residential MSRs are reflected in earnings.

We use a model to estimate the fair value of our residential MSRs. The model is validated by an internal model validation group operating in accordance with Company policies. The model calculates the present value of estimated future net servicing income and incorporates inputs and assumptions that market participants use in estimating fair value. Certain significant inputs and assumptions are not observable in the market and require judgment to determine:

- *The mortgage loan prepayment speed used to estimate future net servicing income.* The prepayment speed is the annual rate at which borrowers are forecasted to repay their mortgage loan principal; this rate also includes estimated borrower defaults. We use models to estimate prepayment speeds and borrower defaults which are influenced by changes in mortgage interest rates and borrower behavior.
- *The discount rate used to present value estimated future net servicing income.* The discount rate is the required rate of return investors in the market would expect for an asset with similar risk. To determine the discount rate, we consider the risk premium for uncertainties from servicing operations (e.g., possible changes in future servicing costs, ancillary income and earnings on escrow accounts).
- *The expected cost to service loans used to estimate future net servicing income.* The cost to service loans includes estimates for unreimbursed expenses, such as delinquency and foreclosure costs, which considers the number of defaulted loans as well as changes in servicing processes

associated with default and foreclosure management.

Both prepayment speed and discount rate assumptions can, and generally will, change quarterly as market conditions and mortgage interest rates change. For example, an increase in either the prepayment speed or discount rate assumption results in a decrease in the fair value of the MSRs, while a decrease in either assumption would result in an increase in the fair value of the MSRs. In recent years, there have been significant market-driven fluctuations in loan prepayment speeds and the discount rate. These fluctuations can be rapid and may be significant in the future. Additionally, while our current valuation reflects our best estimate of servicing costs, future regulatory or investor changes in servicing standards, as well as changes in individual state foreclosure legislation, may have an impact on our servicing cost assumption and our MSR valuation in future periods.

For a description of our valuation and sensitivity of MSRs, see Note 1 (Summary of Significant Accounting Policies), Note 8 (Securitizations and Variable Interest Entities), Note 9 (Mortgage Banking Activities) and Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in this Report.

Fair Value of Financial Instruments

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

We use fair value measurements to record fair value adjustments to certain financial instruments and to determine fair value disclosures. For example, trading assets, securities available for sale, derivatives and substantially all of our residential MHFS are carried at fair value each period. Other financial instruments, such as certain MHFS and substantially all of our loans held for investment, are not carried at fair value each period but may require nonrecurring fair value adjustments due to application of lower-of-cost-or-market accounting or write-downs of individual assets. We also disclose our estimate of fair value for financial instruments not recorded at fair value, such as loans held for investment or issuances of long-term debt.

The accounting provisions for fair value measurements include a three-level hierarchy for disclosure of assets and liabilities recorded at fair value. The classification of assets and liabilities within the hierarchy is based on whether the inputs to the valuation methodology used for measurement are observable or unobservable. Observable inputs reflect market-derived or market-based information obtained from independent sources, while unobservable inputs reflect our estimates about market data. For additional information on fair value levels, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in this Report.

When developing fair value measurements, we maximize the use of observable inputs and minimize the use of unobservable inputs. When available, we use quoted prices in active markets to measure fair value. If quoted prices in active markets are not available, fair value measurement is based upon models that use primarily market-based or independently sourced market parameters, including interest rate yield curves, prepayment speeds, option volatilities and currency rates. However, in certain cases, when market observable inputs for model-based valuation techniques are not readily available, we are required to make judgments about assumptions market participants would use to estimate fair value. Additionally, we use third party pricing services to obtain fair values, which are used to either record the price of an instrument or to corroborate internally developed prices. For additional information on our use of pricing services, see Note 1 (Summary of Significant Accounting Policies) and Note 17 (Fair Value of Assets and Liabilities) to Financial Statements in this Report.

The degree of management judgment involved in determining the fair value of a financial instrument is dependent upon the availability of quoted prices in active markets or observable market parameters. For financial instruments with quoted market prices or observable market parameters in active markets, there is minimal subjectivity involved in measuring fair value. When quoted prices and observable data in active markets are not fully available, management judgment is necessary to estimate fair value. Changes in the market conditions, such as reduced liquidity in the capital markets or changes in secondary market activities, may reduce the availability and reliability of quoted prices or observable data used to determine fair value. When significant adjustments are required to price quotes or inputs, it may be appropriate to utilize an estimate based primarily on unobservable inputs. When an active market for a financial instrument does not exist, the use of management estimates that incorporate current market participant expectations of future cash flows, adjusted for an appropriate risk premium, is acceptable.

Significant judgment is also required to determine whether certain assets measured at fair value are classified as Level 2 or Level 3 of the fair value hierarchy as described in Note 17 (Fair Value of Assets and Liabilities) to Financial Statements in this Report. When making this judgment, we consider available information, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs used. For securities in inactive markets, we use a predetermined percentage to evaluate the impact of fair value adjustments derived from weighting both external and internal indications of value to determine if the instrument is classified as Level 2 or Level 3. Otherwise, the classification of Level 2 or Level 3 is based upon the specific facts and circumstances of each instrument or instrument category and judgments are made regarding the significance of the Level 3 inputs to the instruments' fair value measurement in its entirety. If Level 3 inputs are considered significant, the instrument is classified as Level 3.

Table 60 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).

Table 60: Fair Value Level 3 Summary

	December 31, 2016		December 31, 2015	
($ in billions)	**Total balance**	**Level 3 (1)**	Total balance	Level 3 (1)
Assets carried at fair value	**$ 436.3**	**23.5**	384.2	27.7
As a percentage of total assets	**23 %**	**1**	21	2
Liabilities carried at fair value	**$ 30.9**	**1.7**	29.6	1.5
As a percentage of total liabilities	**2 %**	*****	2	*

* Less than 1%.
(1) Before derivative netting adjustments.

See Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in this Report for a complete discussion on our fair value of financial instruments, our related measurement techniques and the impact to our financial statements.

Income Taxes

We file consolidated and separate company U.S. federal income tax returns, foreign tax returns and various combined and separate company state tax returns. We evaluate two components of income tax expense: current and deferred income tax expense. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions. Deferred income tax expense results from changes in deferred tax assets and liabilities between periods. We determine deferred income taxes using the balance sheet method. Under this method, the net deferred tax asset or liability is based on the tax effects of the differences between the book and tax bases of assets and liabilities, and recognizes enacted changes in tax rates and laws in the period in which they occur. Deferred tax assets are recognized subject to management's judgment that realization is "more likely than not." Uncertain tax positions that meet the more likely than not recognition threshold are measured to determine the amount of benefit to recognize. An uncertain tax position is measured at the largest amount of benefit that management believes has a greater than 50% likelihood of realization upon settlement. Tax benefits not meeting our realization criteria represent unrecognized tax benefits. We account for interest and penalties as a component of income tax expense. We do not record U.S. tax on undistributed earnings of certain non-U.S. subsidiaries to the extent the earnings are indefinitely reinvested outside of the U.S. Foreign taxes paid are generally applied as credits to reduce U.S. income taxes payable.

The income tax laws of the jurisdictions in which we operate are complex and subject to different interpretations by the taxpayer and the relevant government taxing authorities. In establishing a provision for income tax expense, we must make judgments and interpretations about the application of these inherently complex tax laws. We must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign. Our interpretations may be subjected to review during examination by taxing authorities and disputes may arise over the respective tax positions. We attempt to resolve these disputes during the tax examination and audit process and ultimately through the court systems when applicable.

We monitor relevant tax authorities and revise our estimate of accrued income taxes due to changes in income tax laws and their interpretation by the courts and regulatory authorities on a quarterly basis. Revisions of our estimate of accrued income taxes also may result from our own income tax planning and from the resolution of income tax controversies. Such revisions in our estimates may be material to our operating results for any given quarter.

U.S. corporation income tax reforms, if enacted, could result in revisions to our accrued income taxes. A reduction to the U.S. statutory income tax rate would be expected to result in lower current and deferred provisions for U.S. federal income tax expense as well as a reduction to our net deferred income tax liability. If tax reform were to include a provision that would mandate the taxation of our $2.4 billion of undistributed foreign earnings, we would incur a charge dependent on the effective tax rate prescribed for these earnings by the legislation. In addition to the income tax impacts, various pre-tax impairments may be required to reflect changes in value of assets related to income tax rate sensitive investments.

See Note 21 (Income Taxes) to Financial Statements in this Report for a further description of our provision for income taxes and related income tax assets and liabilities.

Current Accounting Developments

Table 61 lists the significant accounting updates applicable to us that have been issued by the FASB but are not yet effective.

Table 61: Current Accounting Developments – Issued Standards

Standard	Description	Effective date and financial statement impact
Accounting Standards Update (ASU or Update) 2016-13 – Financial Instruments – Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*	The Update changes the accounting for credit losses on loans and debt securities. For loans and held-to-maturity debt securities, the Update requires a current expected credit loss (CECL) approach to determine the allowance for credit losses. CECL requires loss estimates for the remaining estimated life of the financial asset using historical experience, current conditions, and reasonable and supportable forecasts. Also, the Update eliminates the existing guidance for PCI loans, but requires an allowance for purchased financial assets with more than insignificant deterioration since origination. In addition, the Update modifies the other-than-temporary impairment model for available-for-sale debt securities to require an allowance for credit impairment instead of a direct write-down, which allows for reversal of credit impairments in future periods based on improvements in credit.	The guidance is effective in first quarter 2020 with a cumulative-effect adjustment to retained earnings as of the beginning of the year of adoption. While early adoption is permitted beginning in first quarter 2019, we do not expect to elect that option. We are evaluating the impact of the Update on our consolidated financial statements. We expect the Update will result in an increase in the allowance for credit losses given the change to estimated losses over the contractual life adjusted for expected prepayments with an anticipated material impact from longer duration portfolios, as well as the addition of an allowance for debt securities. The amount of the increase will be impacted by the portfolio composition and credit quality at the adoption date as well as economic conditions and forecasts at that time.
ASU 2016-09 – Compensation – Stock Compensation (Topic 718): *Improvements to Employee Share-Based Payment Accounting*	The Update simplifies the accounting for share-based payment awards issued to employees. We have income tax effects based on changes in our stock price from the grant date to the vesting date of the employee stock compensation. The Update will require these income tax effects to be recognized in the statement of income within income tax expense instead of within additional paid-in capital. In addition, the Update requires changes to the Statement of Cash Flows including the classification between the operating and financing section for tax activity related to employee stock compensation.	We will adopt the guidance in first quarter 2017. If we had adopted the guidance for the year ended December 31, 2016, we would have had a reduction to our income tax expense of $277 million. This amount is included in additional paid-in capital in the Statement of Changes in Equity for the year ended December 31, 2016. We will begin recording these income tax effects on a prospective basis in 2017. The presentation and classification changes to our Statement of Cash Flows will be implemented retrospectively.
ASU 2016-02 – Leases (Topic 842)	The Update requires lessees to recognize leases on the balance sheet with lease liabilities and corresponding right-of-use assets based on the present value of lease payments. Lessor accounting activities are largely unchanged from existing lease accounting. The Update also eliminates leveraged lease accounting but allows existing leveraged leases to continue their current accounting until maturity, termination or modification.	We expect to adopt the guidance in first quarter 2019 using the modified retrospective method and practical expedients for transition. The practical expedients allow us to largely account for our existing leases consistent with current guidance except for the incremental balance sheet recognition for lessees. We have started our implementation of the Update which has included an initial evaluation of our leasing contracts and activities. As a lessee, we currently report future minimum lease payments in Table 7.2 in Note 7 (Premises, Equipment, Lease Commitments and Other Assets) to Financial Statement in this Report. We are developing our methodology to estimate the right-of use assets and lease liabilities, which is based on the present value of lease payments. We do not expect a material change to the timing of expense recognition. Given the limited changes to lessor accounting, we do not expect material changes to recognition or measurement, but we are early in the implementation process and will continue to evaluate the impact. We are evaluating our existing disclosures and may need to provide additional information as a result of adoption of the Update.

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

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

- ASU 2017-04 –Goodwill and Other (Topic 350): *Simplifying the Test for Goodwill Impairment*
- ASU 2017-03 –Accounting Changes and Error Corrections (Topic 250) and Investments-Equity Method and Joint Ventures (Topic 323): *Amendments to SEC Paragraphs Pursuant to Staff Announcements at the September 22, 2016 and November 17, 2016 EITF Meetings (SEC Update)*
- ASU 2017-01 –Business Combinations (Topic 805): *Clarifying the Definition of a Business*
- ASU 2016-18 – Statement of Cash Flows (Topic 230): *Restricted Cash*
- ASU 2016-16 – Income Taxes (Topic 740): *Intra-Entity Transfers of Assets Other Than Inventory*
- ASU 2016-15 – Statement of Cash Flows (Topic 230): *Classification of Certain Cash Receipts and Cash Payments*
- ASU 2016-04 – Liabilities – Extinguishments of Liabilities (Subtopic 405-20): *Recognition of Breakage for Certain Prepaid Stored-Value Products*

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

Table 62 provides proposed accounting updates that could materially impact our consolidated financial statements when finalized by the FASB.

Table 62: Current Accounting Developments – Proposed Standards

Proposed Standard	Description	Expected Issuance
Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities	The proposed Update would make targeted changes to the hedge accounting model intended to facilitate financial reporting that more closely reflects an entity's risk management activities and to simplify application of hedge accounting. Changes include expanding the types of risk management strategies eligible for hedge accounting, easing the documentation and effectiveness assessment requirements, changing how ineffectiveness is measured and changing the presentation and disclosure requirements for hedge accounting activities.	The FASB expects to issue a final standard in 2017.
Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities	The proposed Update would change the accounting for callable debt securities purchased at a premium to require amortization of the premium to the earliest call date rather than to the maturity date. Accounting for callable debt securities purchased at a discount is not proposed to change and the discount would continue to amortize to the maturity date.	The FASB expects to issue a final standard in 2017.

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 levels or targets and our estimated Common Equity Tier 1 ratio under Basel III capital standards; (viii) the performance of our mortgage business and any related exposures; (ix) the expected outcome and impact of legal, regulatory and legislative developments, as well as our expectations regarding compliance therewith; (x) future common stock dividends, common share repurchases and other uses of capital; (xi) our targeted range for return on assets and return on equity; (xii) the outcome of contingencies, such as legal proceedings; and (xiii) the Company's plans, objectives and strategies.

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

- current and future economic and market conditions, including the effects of declines in housing prices, high unemployment rates, U.S. fiscal debt, budget and tax matters, geopolitical matters, and the overall slowdown in global economic growth;
- our capital and liquidity requirements (including under regulatory capital standards, such as the Basel III capital standards) and our ability to generate capital internally or raise capital on favorable terms;
- financial services reform and other current, pending or future legislation or regulation that could have a negative effect on our revenue and businesses, including the Dodd-Frank Act and other legislation and regulation relating to bank products and services;
- the extent of our success in our loan modification efforts, as well as the effects of regulatory requirements or guidance regarding loan modifications;
- the amount of mortgage loan repurchase demands that we receive and our ability to satisfy any such demands without having to repurchase loans related thereto or otherwise indemnify or reimburse third parties, and the credit quality of or losses on such repurchased mortgage loans;
- negative effects relating to our mortgage servicing and foreclosure practices, as well as changes in industry standards or practices, regulatory or judicial requirements, penalties or fines, increased servicing and other costs or obligations, including loan modification requirements, or delays or moratoriums on foreclosures;
- our ability to realize our efficiency ratio target as part of our expense management initiatives, including as a result of business and economic 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 low interest rate environment or changes in interest rates on our net interest income, net interest margin and our mortgage originations, mortgage servicing rights and mortgages held for sale;
- significant turbulence or a disruption in the capital or financial markets, which could result in, among other things, reduced investor demand for mortgage loans, a reduction in the availability of funding or increased funding costs, and declines in asset values and/or recognition of other-than-temporary impairment on securities held in our investment securities portfolio;
- the effect of a fall in stock market prices on our investment banking business and our fee income from our brokerage, asset and wealth management businesses;
- negative effects from the retail banking sales practices matter, including on our legal, operational and compliance costs, our ability to engage in certain business activities or offer certain products or services, our ability to keep and attract customers, our ability to attract and retain qualified team members, and our reputation;
- reputational damage from negative publicity, protests, fines, penalties and other negative consequences from regulatory violations and legal actions;
- a failure in or breach of our operational or security systems or infrastructure, or those of our third party vendors or other service providers, including as a result of cyber attacks;
- the effect of changes in the level of checking or savings account deposits on our funding costs and net interest margin;
- fiscal and monetary policies of the Federal Reserve Board; and
- the other risk factors and uncertainties described under "Risk Factors" in this Report.

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 this Report, as filed with the Securities and Exchange Commission and available on its website at www.sec.gov.

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

Risk Factors

An investment in the Company involves risk, including the possibility that the value of the investment could fall substantially and that dividends or other distributions on the investment could be reduced or eliminated. We discuss below risk factors that could adversely affect our financial results and condition, and the value of, and return on, an investment in the Company.

RISKS RELATED TO THE ECONOMY, FINANCIAL MARKETS, INTEREST RATES AND LIQUIDITY

As one of the largest lenders in the U.S. and a provider of financial products and services to consumers and businesses across the U.S. and internationally, our financial results have been, and will continue to be, materially affected by general economic conditions, particularly unemployment levels and home prices in the U.S., and a deterioration in economic conditions or in the financial markets may materially adversely affect our lending and other businesses and our financial results and condition. We generate revenue from the interest and fees we charge on the loans and other products and services we sell, and a substantial amount of our revenue and earnings comes from the net interest income and fee income that we earn from our consumer and commercial lending and banking businesses, including our mortgage banking business where we currently are the largest mortgage originator in the U.S. These businesses have been, and will continue to be, materially affected by the state of the U.S. economy, particularly unemployment levels and home prices. Although the U.S. economy has continued to gradually improve from the depressed levels of 2008 and early 2009, economic growth has been slow and uneven. In addition, the negative effects and continued uncertainty stemming from U.S. fiscal and political matters, including concerns about deficit levels, taxes and U.S. debt ratings, have impacted and may continue to impact the continuing global economic recovery. Changes in U.S. fiscal or other policies that may result from the recent U.S. elections may also impact the U.S. and global economy. Moreover, geopolitical matters, including international political unrest or disturbances, Britain's vote to withdraw from the European Union, as well as continued concerns over energy prices and global economic difficulties, may impact the stability of financial markets and the global economy. A prolonged period of slow growth in the global economy, particularly in the U.S., or any deterioration in general economic conditions and/or the financial markets resulting from the above matters or any other events or factors that may disrupt or dampen the global economic recovery, could materially adversely affect our financial results and condition.

A weakening in business or economic conditions, including higher unemployment levels or declines in home prices, can also adversely affect our borrowers' ability to repay their loans, which can negatively impact our credit performance. If unemployment levels worsen or if home prices fall we would expect to incur elevated charge-offs and provision expense from increases in our allowance for credit losses. These conditions may adversely affect not only consumer loan performance but also commercial and CRE loans, especially for those business borrowers that rely on the health of industries that may experience deteriorating economic conditions. The ability of these and other borrowers to repay their loans may deteriorate, causing us, as one of the largest commercial and CRE lenders in the U.S., to incur significantly higher credit losses. In addition, weak or deteriorating economic conditions make it more challenging for us to increase our consumer and commercial loan portfolios by making loans to creditworthy borrowers at attractive yields. Although we have significant capacity to add loans to our balance sheet, weak economic conditions, as well as competition and/or increases in interest rates, could soften demand for our loans resulting in our retaining a much higher amount of lower yielding liquid assets on our balance sheet. If economic conditions do not continue to improve or if the economy worsens and unemployment rises, which also would likely result in a decrease in consumer and business confidence and spending, the demand for our credit products, including our mortgages, may fall, reducing our interest and noninterest income and our earnings.

A deterioration in business and economic conditions, which may erode consumer and investor confidence levels, and/or increased volatility of financial markets, also could adversely affect financial results for our fee-based businesses, including our investment advisory, mutual fund, securities brokerage, wealth management, and investment banking businesses. In 2016, approximately 25% of our revenue was fee income, which included trust and investment fees, card fees and other fees. We earn fee income from managing assets for others and providing brokerage and other investment advisory and wealth management services. Because investment management fees are often based on the value of assets under management, a fall in the market prices of those assets could reduce our fee income. Changes in stock market prices could affect the trading activity of investors, reducing commissions and other fees we earn from our brokerage business. The U.S. stock market experienced all-time highs in 2016, but also experienced significant volatility and there is no guarantee that high price levels will continue. Poor economic conditions and volatile or unstable financial markets also can negatively affect our debt and equity underwriting and advisory businesses, as well as our trading and venture capital businesses. Any deterioration in global financial markets and economies, including as a result of any international political unrest or disturbances, may adversely affect the revenues and earnings of our international operations, particularly our global financial institution and correspondent banking services.

For more information, refer to the "Risk Management – Asset/Liability Management" and "– Credit Risk Management" sections in this Report.

Changes in interest rates and financial market values could reduce our net interest income and earnings, including as a result of recognizing losses or OTTI on the securities that we hold in our portfolio or trade for our customers. Our net interest income is the interest we earn on loans, debt securities and other assets we hold less the interest we pay on our deposits, long-term and short-term debt, and other liabilities. Net interest income is a measure of both our net interest margin – the difference between the yield we earn on our assets and the interest rate we pay for deposits and our other sources of funding – and the amount of earning assets we hold. Changes in either our net interest margin or the amount or mix of earning assets we hold could affect our net interest income and our earnings. Changes in interest rates can affect our net interest margin. Although the yield we earn on our assets and our funding costs tend to move in the same direction in response to changes in interest rates, one can rise or fall faster than the other, causing our net interest margin to expand or contract. If our funding costs rise faster than the yield we earn on our assets or if the yield we earn on our assets falls faster than our funding costs, our net interest margin could contract.

The amount and type of earning assets we hold can affect our yield and net interest margin. We hold earning assets in the form of loans and investment securities, among other assets. As noted above, if the economy worsens we may see lower demand for loans by creditworthy customers, reducing our net interest income and yield. In addition, our net interest income and net interest margin can be negatively affected by a prolonged low interest rate environment, which is currently being experienced as a result of economic conditions and FRB monetary policies, as it may result in us holding lower yielding loans and securities on our balance sheet, particularly if we are unable to replace the maturing higher yielding assets with similar higher yielding assets. Increases in interest rates, however, may negatively affect loan demand and could result in higher credit losses as borrowers may have more difficulty making higher interest payments. As described below, changes in interest rates also affect our mortgage business, including the value of our MSRs.

Changes in the slope of the "yield curve" – or the spread between short-term and long-term interest rates – could also reduce our net interest margin. Normally, the yield curve is upward sloping, meaning short-term rates are lower than long-term rates. When the yield curve flattens, or even inverts, our net interest margin could decrease if the cost of our short-term funding increases relative to the yield we can earn on our long-term assets.

The interest we earn on our loans may be tied to U.S.-denominated interest rates such as the federal funds rate while the interest we pay on our debt may be based on international rates such as LIBOR. If the federal funds rate were to fall without a corresponding decrease in LIBOR, we might earn less on our loans without any offsetting decrease in our funding costs. This could lower our net interest margin and our net interest income.

We assess our interest rate risk by estimating the effect on our earnings under various scenarios that differ based on assumptions about the direction, magnitude and speed of interest rate changes and the slope of the yield curve. We hedge some of that interest rate risk with interest rate derivatives. We also rely on the "natural hedge" that our mortgage loan originations and servicing rights can provide.

We generally do not hedge all of our interest rate risk. There is always the risk that changes in interest rates could reduce our net interest income and our earnings in material amounts, especially if actual conditions turn out to be materially different than what we assumed. For example, if interest rates rise or fall faster than we assumed or the slope of the yield curve changes, we may incur significant losses on debt securities we hold as investments. To reduce our interest rate risk, we may rebalance our investment and loan portfolios, refinance our debt and take other strategic actions. We may incur losses when we take such actions.

We hold securities in our investment securities portfolio, including U.S. Treasury and federal agency securities and federal agency MBS, securities of U.S. states and political subdivisions, residential and commercial MBS, corporate debt securities, other asset-backed securities and marketable equity securities, including securities relating to our venture capital activities. We analyze securities held in our investment securities portfolio for OTTI on at least a quarterly basis. The process for determining whether impairment is other than temporary usually requires difficult, subjective judgments about the future financial performance of the issuer and any collateral underlying the security in order to assess the probability of receiving contractual principal and interest payments on the security. Because of changing economic and market conditions, as well as credit ratings, affecting issuers and the performance of the underlying collateral, we may be required to recognize OTTI in future periods. In particular, economic difficulties in the oil and gas industry resulting from prolonged low oil prices may further impact our energy sector investments and require us to recognize OTTI in these investments in future periods. Our net income also is exposed to changes in interest rates, credit spreads, foreign exchange rates, equity and commodity prices in connection with our trading activities, which are conducted primarily to accommodate our customers in the management of their market price risk, as well as when we take positions based on market expectations or to benefit from differences between financial instruments and markets. The securities held in these activities are carried at fair value with realized and unrealized gains and losses recorded in noninterest income. As part of our business to support our customers, we trade public securities and these securities also are subject to market fluctuations with gains and losses recognized in net income when realized and periodically include OTTI charges. Although we have processes in place to measure and monitor the risks associated with our trading activities, including stress testing and hedging strategies, there can be no assurance that our processes and strategies will be effective in avoiding losses that could have a material adverse effect on our financial results.

The value of our public and private equity investments can fluctuate from quarter to quarter. Certain of these investments are carried under the cost or equity method, while others are carried at fair value with unrealized gains and losses reflected in earnings. Earnings from our equity investments may be volatile and hard to predict, and may have a significant effect on our earnings from period to period. When, and if, we recognize gains may depend on a number of factors, including general economic and market conditions, the prospects of the companies in which we invest, when a company goes public, the size of our position relative to the public float, and whether we are subject to any resale restrictions.

Our venture capital investments could result in significant OTTI losses for those investments carried under the cost or equity method. Our assessment for OTTI is based on a number of factors, including the then current market value of each investment compared with its carrying value. If we determine there is OTTI for an investment, we write-down the carrying value of the investment, resulting in a charge to earnings. The amount of this charge could be significant.

For more information, refer to the "Risk Management – Asset/Liability Management – Interest Rate Risk", "– Mortgage Banking Interest Rate and Market Risk", "– Market Risk – Trading Activities", and "– Market Risk – Equity Investments" and the "Balance Sheet Analysis – Investment Securities" sections in this Report and Note 5 (Investment Securities) to Financial Statements in this Report.

Effective liquidity management, which ensures that we can meet customer loan requests, customer deposit maturities/withdrawals and other cash commitments, including principal and interest payments on our debt, efficiently under both normal operating conditions and other unpredictable circumstances of industry or financial market stress, is essential for the operation of our business, and our financial results and condition could be materially adversely affected if we do not effectively manage our liquidity. Our liquidity is essential for the operation of our business. We primarily rely on bank deposits to be a low cost and stable source of funding for the loans we make and the operation of our business. Customer deposits, which include noninterest-bearing deposits, interest-bearing checking, savings certificates, certain market rate and other savings, and certain foreign deposits, have historically provided us with a sizeable source of relatively stable and low-cost funds. In addition to customer deposits, our sources of liquidity include investments in our securities portfolio, our ability to sell or securitize loans in secondary markets and to pledge loans to access secured borrowing facilities through the FHLB and the FRB, and our ability to raise funds in domestic and international money through capital markets.

Our liquidity and our ability to fund and run our business could be materially adversely affected by a variety of conditions and factors, including financial and credit market disruption and volatility or a lack of market or customer confidence in financial markets in general similar to what occurred during the financial crisis in 2008 and early 2009, which may result in a loss of customer deposits or outflows of cash or collateral and/or our inability to access capital markets on favorable terms. Market disruption and volatility could impact our credit spreads, which are the amount in excess of the interest rate of U.S. Treasury securities, or other benchmark securities, of the same maturity that we need to pay to our funding providers. Increases in interest rates and our credit spreads could significantly increase our funding costs. Other conditions and factors that could materially adversely affect our liquidity and funding include a lack of market or customer confidence in the Company or negative news about the Company or the financial services industry generally which also may result in a loss of deposits and/or negatively affect our ability to access the capital markets; our inability to sell or securitize loans or other assets, and, as described below, reductions in one or more of our credit ratings. Many of the above conditions and factors may be caused by events over which we have little or no control. While market conditions have continued to improve since the financial crisis, there can be no assurance that significant disruption and volatility in the financial markets will not occur in the future. For example, concerns over geopolitical issues, commodity and currency prices, as well as global economic conditions, may cause financial market volatility.

In addition, concerns regarding the potential failure to raise the U.S. government debt limit and any associated downgrade of U.S. government debt ratings may cause uncertainty and volatility as well. A failure to raise the U.S. debt limit in the future and/or additional downgrades of the sovereign debt ratings of the U.S. government or the debt ratings of related institutions, agencies or instrumentalities, as well as other fiscal or political events could, in addition to causing economic and financial market disruptions, materially adversely affect the market value of the U.S. government securities that we hold, the availability of those securities as collateral for borrowing, and our ability to access capital markets on favorable terms, as well as have other material adverse effects on the operation of our business and our financial results and condition.

As noted above, we rely heavily on bank deposits for our funding and liquidity. We compete with banks and other financial services companies for deposits. If our competitors raise the rates they pay on deposits our funding costs may increase, either because we raise our rates to avoid losing deposits or because we lose deposits and must rely on more expensive sources of funding. Higher funding costs reduce our net interest margin and net interest income. Checking and savings account balances and other forms of customer deposits may decrease when customers perceive alternative investments, such as the stock market, as providing a better risk/return tradeoff. When customers move money out of bank deposits and into other investments, we may lose a relatively low cost source of funds, increasing our funding costs and negatively affecting our liquidity.

If we are unable to continue to fund our assets through customer bank deposits or access capital markets on favorable terms or if we suffer an increase in our borrowing costs or otherwise fail to manage our liquidity effectively, our liquidity, net interest margin, financial results and condition may be materially adversely affected. As we did during the financial crisis, we may also need, or be required by our regulators, to raise additional capital through the issuance of common stock, which could dilute the ownership of existing stockholders, or reduce or even eliminate our common stock dividend to preserve capital or in order to raise additional capital.

For more information, refer to the "Risk Management – Asset/Liability Management" section in this Report.

Adverse changes in our credit ratings could have a material adverse effect on our liquidity, cash flows, financial results and condition. Our borrowing costs and ability to obtain funding are influenced by our credit ratings. Reductions in one or more of our credit ratings could adversely affect our ability to borrow funds and raise the costs of our borrowings substantially and could cause creditors and business counterparties to raise collateral requirements or take other actions that could adversely affect our ability to raise funding. Credit ratings and credit ratings agencies' outlooks are based on the ratings agencies' analysis of many quantitative and qualitative factors, such as our capital adequacy, liquidity, asset quality, business mix, the level and quality of our earnings, rating agency assumptions regarding the probability and extent of federal financial assistance or support, and other rating agency specific criteria. In addition to credit ratings, our borrowing costs are affected by various other external factors, including market volatility and concerns or perceptions about the financial services industry generally. There can be no assurance that we will maintain our credit ratings and outlooks and that credit ratings downgrades in the future would not materially affect our ability to borrow funds and borrowing costs.

Downgrades in our credit ratings also may trigger additional collateral or funding obligations which could negatively affect our liquidity, including as a result of credit-related contingent features in certain of our derivative contracts. Although a one or two notch downgrade in our current credit ratings would not be expected to trigger a material increase in our collateral or funding obligations, a more severe credit rating downgrade of our long-term and short-term credit ratings could increase our collateral or funding obligations and the effect on our liquidity could be material.

For information on our credit ratings, see the "Risk Management – Asset/Liability Management – Liquidity and Funding – Credit Ratings" section and for information regarding additional collateral and funding obligations required of certain derivative instruments in the event our credit ratings were to fall below investment grade, see Note 16 (Derivatives) to Financial Statements in this Report.

We rely on dividends from our subsidiaries for liquidity, and federal and state law can limit those dividends. Wells Fargo & Company, the parent holding company, is a separate and distinct legal entity from its subsidiaries. It receives a significant portion of its funding and liquidity from dividends and other distributions from its subsidiaries. We generally use these dividends and distributions, among other things, to pay dividends on our common and preferred stock and interest and principal on our debt. Federal and state laws limit the amount of dividends and distributions that our bank and some of our nonbank subsidiaries, including our broker-dealer subsidiaries, may pay to our parent holding company. Also, our right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to the prior claims of the subsidiary's creditors.

For more information, refer to the "Regulation and Supervision – Dividend Restrictions" and "– Holding Company Structure" sections in our 2016 Form 10-K and to Note 3 (Cash, Loan and Dividend Restrictions) and Note 26 (Regulatory and Agency Capital Requirements) to Financial Statements in this Report.

RISKS RELATED TO FINANCIAL REGULATORY REFORM AND OTHER LEGISLATION AND REGULATIONS

Enacted legislation and regulation, including the Dodd-Frank Act, as well as future legislation and/or regulation, could require us to change certain of our business practices, reduce our revenue and earnings, impose additional costs on us or otherwise adversely affect our business operations and/or competitive position. Our parent company, our subsidiary banks and many of our nonbank subsidiaries such as those related to our brokerage and mutual fund businesses, are subject to significant and extensive regulation under state and federal laws in the U.S., as well as the applicable laws of the various jurisdictions outside of the U.S. where we conduct business. These regulations protect depositors, federal deposit insurance funds, consumers, investors and the banking and financial system as a whole, not necessarily our stockholders. Economic, market and political conditions during the past few years have led to a significant amount of legislation and regulation in the U.S. and abroad affecting the financial services industry, as well as heightened expectations and scrutiny of financial services companies from banking regulators. These laws and regulations may affect the manner in which we do business and the products and services that we provide, affect or restrict our ability to compete in our current businesses or our ability to enter into or acquire new businesses, reduce or limit our revenue in businesses or impose additional fees, assessments or taxes on us, intensify the regulatory supervision of us and the financial services industry, and adversely affect our business operations or have other negative consequences. In addition, greater government oversight and scrutiny of financial services companies has increased our operational and compliance costs as we must continue to devote substantial resources to enhancing our procedures and controls and meeting heightened regulatory standards and expectations. Any failure to meet regulatory standards or expectations could result in fees, penalties, or restrictions on our ability to engage in certain business activities.

On July 21, 2010, the Dodd-Frank Act, the most significant financial reform legislation since the 1930s, became law. The Dodd-Frank Act, among other things, (i) established the Financial Stability Oversight Council to monitor systemic risk posed by financial firms and imposes additional and enhanced FRB regulations, including capital and liquidity requirements, on certain large, interconnected bank holding companies such as Wells Fargo and systemically significant nonbanking firms intended to promote financial stability; (ii) creates a liquidation framework for the resolution of covered financial companies, the costs of which would be paid through assessments on surviving covered financial companies; (iii) makes significant changes to the structure of bank and bank holding company regulation and activities in a variety of areas, including prohibiting proprietary trading and private fund investment activities, subject to certain exceptions; (iv) creates a new framework for the regulation of over-the-counter derivatives and new regulations for the securitization market and strengthens the regulatory oversight of securities and capital markets by the SEC; (v) established the Consumer Financial Protection Bureau (CFPB) within the FRB, which has sweeping powers to administer and enforce a new federal regulatory framework of consumer financial regulation; (vi) may limit the existing pre-emption of state laws with respect to the application of such laws to national banks, makes federal pre-emption no longer applicable to operating subsidiaries of national banks, and gives state authorities, under certain circumstances, the ability to enforce state laws and federal consumer regulations against national banks; (vii) provides for increased regulation of residential mortgage activities; (viii) revised the FDIC's assessment base for deposit insurance by changing from an assessment base defined by deposit liabilities to a risk-based system based on total assets; (ix) permitted banks to pay interest on business checking accounts beginning on July 1, 2011; (x) authorized the FRB under the Durbin Amendment to adopt regulations that limit debit card interchange fees received by debit card issuers; and (xi) includes several corporate governance and executive compensation provisions and requirements, including mandating an advisory stockholder vote on executive compensation.

The Dodd-Frank Act and many of its provisions became effective in July 2010 and July 2011. The Dodd-Frank Act, including current and future rules implementing its provisions and the interpretation of those rules, could result in a loss of revenue, require us to change certain of our business practices, limit our ability to pursue certain business opportunities, increase our capital requirements and impose additional assessments and costs on us and otherwise adversely affect our business operations and have other negative consequences.

Our consumer businesses, including our mortgage, credit card and other consumer lending and non-lending businesses, may be negatively affected by the activities of the CFPB, which has broad rulemaking powers and supervisory authority over consumer financial products and services. Although the full impact of the CFPB on our businesses is uncertain, the CFPB's activities may increase our compliance costs and require changes in our business practices as a result of new regulations and requirements which could limit or negatively affect the products and services that we currently offer our customers. For example, the CFPB has issued a number of rules impacting residential mortgage lending practices. As a result of greater regulatory scrutiny of our consumer businesses, we have become subject to more and expanded regulatory examinations and/or investigations, which also could result in increased costs and harm to our reputation in the event of a failure to comply with the increased regulatory requirements.

The Dodd-Frank Act's proposed prohibitions or limitations on proprietary trading and private fund investment activities, known as the "Volcker Rule," also may reduce our revenue. Final rules to implement the requirements of the Volcker Rule were issued in December 2013. Pursuant to an order of the FRB, banking entities were required to comply with many of the Volcker Rule's restrictions by July 21, 2015. However, the FRB has extended the rule's compliance date to give banking entities until July 21, 2017 to conform their ownership interests in and sponsorships of covered funds that were in place prior to December 31, 2013. Wells Fargo is also subject to enhanced compliance program requirements.

In addition, the Dodd-Frank Act established a comprehensive framework for regulating over-the-counter derivatives and authorized the CFTC and SEC to regulate swaps and security-based swaps, respectively. The CFTC has adopted rules applicable to our provisionally registered swap dealer, Wells Fargo Bank, N.A., that require, among other things, extensive regulatory and public reporting of swaps, central clearing and trading of swaps on exchanges or other multilateral platforms, and compliance with comprehensive internal and external business conduct standards. The SEC is expected to implement parallel rules applicable to security-based swaps. In addition, federal regulators have adopted final rules establishing margin requirements for swaps and security-based swaps not centrally cleared. All of these new rules, as well as others being considered by regulators in other jurisdictions, may negatively impact customer demand for over-the-counter derivatives and may increase our costs for engaging in swaps and other derivatives activities.

The Dodd-Frank Act also imposes changes on the ABS markets by requiring sponsors of certain ABS to hold at least a 5% ownership stake in the ABS. Federal regulatory agencies have issued final rules to implement this credit risk retention requirement, which included an exemption for, among other things, GSE mortgage backed securities. The final rules may impact our ability to issue certain ABS or otherwise participate in various securitization transactions.

In order to address the perceived risks that money market mutual funds may pose to the financial stability of the United States, the SEC has adopted rules that, among other things, require significant structural changes to these funds, including requiring non-governmental institutional money market funds to maintain a variable net asset value and providing for the imposition of liquidity fees and redemption gates for all non-governmental money market funds during periods in which they experience liquidity impairments of a certain magnitude. Certain of our money market mutual funds have seen a decline in assets under management as a result of these structural changes.

Through a Deposit Insurance Fund (DIF), the FDIC insures the deposits of our banks up to prescribed limits for each depositor and funds the DIF through assessments on member insured depository institutions. In March 2016, the FDIC issued a final rule, which became effective on July 1, 2016, that imposes on insured depository institutions with $10 billion or more in assets, such as Wells Fargo, a surcharge of 4.5 cents per $100 of their assessment base, after making certain adjustments. The surcharge is in addition to the base assessments we pay and could significantly increase the overall amount of our deposit insurance assessments. The FDIC expects the surcharge to be in effect for approximately two years; however, if the DIF reserve ratio does not reach 1.35% by December 31, 2018, the final rule provides that the FDIC will impose a shortfall assessment on any bank that was subject to the surcharge.

We are also subject to various rules and regulations related to the prevention of financial crimes and combating terrorism, including the U.S. Patriot Act of 2001. These rules and regulations require us to, among other things, implement policies and procedures related to anti-money laundering, anti-bribery and corruption, fraud, compliance, suspicious activities, currency transaction reporting and due diligence on customers. Although we have policies and procedures designed to comply with these rules and regulations, to the extent they are not fully effective or do not meet heightened regulatory standards or expectations, we may be subject to fines, penalties, restrictions on certain activities, reputational harm, or other adverse consequences.

In April 2016, the U.S. Department of Labor adopted a rule under the Employee Retirement Income Security Act of 1974 (ERISA) that, among other changes and subject to certain exceptions, will as of the applicability date of April 10, 2017 make anyone, including broker-dealers, providing investment advice to retirement investors a fiduciary who must act in the best interest of clients when providing investment advice for direct or indirect compensation to a retirement plan, to a plan fiduciary, participant or beneficiary, or to an investment retirement account (IRA) or IRA holder. The rule may impact the manner in which business is conducted with retirement investors and affect product offerings with respect to retirement plans and IRAs.

On November 18, 2016, the OCC revoked provisions of certain consent orders that provided Wells Fargo Bank, N.A. relief from specific requirements and limitations regarding rules, policies, and procedures for corporate activities; OCC approval of changes in directors and senior executive officers; and golden parachute payments. As a result, Wells Fargo Bank, N.A. is no longer eligible for expedited treatment for certain applications; is now required to provide prior written notice to the OCC of a change in directors and senior executive officers; and is now subject to certain regulatory limitations on golden parachute payments.

Other future regulatory initiatives that could significantly affect our business include proposals to reform the housing finance market in the United States. These proposals, among other things, consider winding down the GSEs and reducing or eliminating over time the role of the GSEs in guaranteeing mortgages and providing funding for mortgage loans, as well as the implementation of reforms relating to borrowers, lenders, and investors in the mortgage market, including reducing the maximum size of a loan that the GSEs can guarantee, phasing in a minimum down payment requirement for borrowers, improving underwriting standards, and increasing accountability and transparency in the securitization process. Congress also may consider the adoption of legislation to reform the mortgage financing market in an effort to assist borrowers experiencing difficulty in making mortgage payments or refinancing their mortgages. The extent and timing of any regulatory reform or the adoption of any legislation regarding the GSEs and/or the home mortgage market, as well as any effect on the Company's business and financial results, are uncertain.

Any other future legislation and/or regulation, if adopted, also could significantly change our regulatory environment and increase our cost of doing business, limit the activities we may pursue or affect the competitive balance among banks, savings associations, credit unions, and other financial services companies, and have a material adverse effect on our financial results and condition.

For more information, refer to the "Regulatory Matters" section in this Report and the "Regulation and Supervision" section in our 2016 Form 10-K.

We could be subject to more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations if regulators determine that our resolution or recovery plan is deficient. Pursuant to rules adopted by the FRB and the FDIC, Wells Fargo has prepared and filed a resolution plan, a so-called "living will," that is designed to facilitate our resolution in the event of material distress or failure. There can be no assurance that the FRB or FDIC will respond favorably to the Company's resolution plans. On December 13, 2016, the FRB and FDIC notified us that they had jointly determined that our 2016 resolution plan submission does not adequately remedy two of the three deficiencies identified by the FRB and FDIC in our 2015 resolution plan. We are required to remedy the two deficiencies in a revised submission to be provided to the FRB and FDIC by March 31, 2017 (the "Revised Submission"). The FRB and FDIC may impose more stringent capital, leverage or liquidity requirements on us or restrict our growth, activities or operations until we remedy the deficiencies. Effective as of December 13, 2016, the FRB and FDIC have jointly determined that the Company and its subsidiaries shall be restricted from establishing any foreign bank or foreign branch and from acquiring any nonbank subsidiary until the FRB and FDIC jointly determine that the Revised Submission adequately remedies the deficiencies. If we fail to timely submit the Revised Submission or if the FRB and FDIC jointly determine that the Revised Submission does not adequately remedy the deficiencies, the FRB and FDIC will limit the size of the Company's nonbank and broker-dealer assets to levels in place as of September 30, 2016. If we have not adequately remedied the deficiencies by December 13, 2018, the FRB and FDIC, in consultation with the Financial Stability Oversight Council, may jointly require the Company to divest certain assets or operations. Although we believe our Revised Submission will remedy the two deficiencies, to demonstrate our commitment to the remediation of the deficiencies and the overall resolution planning process, we have implemented actions to limit the size of the Company's nonbank and broker-dealer assets to levels in place as of September 30, 2016, and expect to operate at this level for the foreseeable future.

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

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

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

As discussed above, we have prepared and filed with federal banking regulators a resolution plan that is designed to facilitate our resolution in the event of material distress or failure. The strategy described in our most recent resolution plan submission is a multiple point of entry strategy; however, we are not obligated to maintain this strategy and it would not be binding in the event of an actual resolution of Wells Fargo, whether conducted under the U.S. Bankruptcy Code or by the FDIC under the orderly liquidation authority.

To facilitate the orderly resolution of systemically important financial institutions in case of material distress or failure, federal banking regulations require that institutions, such as Wells Fargo, maintain a minimum amount of equity and unsecured debt to absorb losses and recapitalize operating subsidiaries. Federal banking regulators have also required measures to facilitate the continued operation of operating subsidiaries notwithstanding the failure of their parent companies, such as limitations on parent guarantees, and have issued guidance encouraging institutions to take legally binding measures to provide capital and liquidity resources to certain subsidiaries in order to facilitate an orderly resolution. In response to the regulators' guidance, Wells Fargo may enter into such binding arrangements in connection with its resolution plan so that the Parent would be committed to make resources available to certain subsidiaries when the Parent or its subsidiaries are in financial distress.

Any resolution of the Company will likely impose losses on shareholders, unsecured debt holders and other creditors of the Parent, while the Parent's subsidiaries may continue to operate. Creditors of some or all of our subsidiaries may receive significant or full recoveries on their claims, while the Parent's security holders could face significant or complete losses. This outcome may arise whether the Company is resolved under the U.S. Bankruptcy Code or by the FDIC under the orderly liquidation authority, and whether the resolution is conducted using a multiple point of entry or a single point of entry strategy. Furthermore, in a multiple point of entry or single point of entry strategy, losses at some or all of our subsidiaries could be transferred to the Parent and borne by the Parent's security holders. Moreover, if either resolution strategy proved to be unsuccessful, our security holders could face greater losses than if the strategy had not been implemented.

Bank regulations, including Basel capital and liquidity standards and FRB guidelines and rules, may require higher capital and liquidity levels, limiting our ability to pay common stock dividends, repurchase our common stock, invest in our business, or provide loans or other products and services to our customers. The Company and each of our insured depository institutions are subject to various regulatory capital adequacy requirements administered by federal banking regulators. In particular, the Company is subject to final and interim final rules issued by federal banking regulators to implement Basel III capital requirements for U.S. banking organizations. These rules are based on international guidelines for determining regulatory capital issued by the Basel Committee on Banking Supervision (BCBS). The federal banking regulators' capital rules, among other things, require on a fully phased-in basis:

- a minimum Common Equity Tier 1 (CET1) ratio of 9.0%, comprised of a 4.5% minimum requirement plus a capital conservation buffer of 2.5% and for us, as a global systemically important bank (G-SIB), a capital surcharge to be calculated annually, which is 2.0% based on our year-end 2015 data;
- a minimum tier 1 capital ratio of 10.5%, comprised of a 6.0% minimum requirement plus the capital conservation buffer of 2.5% and the G-SIB capital surcharge of 2.0%;
- a minimum total capital ratio of 12.5%, comprised of a 8.0% minimum requirement plus the capital conservation buffer of 2.5% and the G-SIB capital surcharge of 2.0%;
- a potential countercyclical buffer of up to 2.5% to be added to the minimum capital ratios, which is currently not in effect but could be imposed by regulators at their discretion if it is determined that a period of excessive credit growth is contributing to an increase in systemic risk;
- a minimum tier 1 leverage ratio of 4.0%; and
- a minimum supplementary leverage ratio (SLR) of 5.0% (comprised of a 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) for large and internationally active bank holding companies (BHCs).

We were required to comply with the final Basel III capital rules beginning January 2014, with certain provisions subject to phase-in periods. The Basel III capital rules are scheduled to be fully phased in by the end of 2021.

Because the Company has been designated as a G-SIB, we will also be subject to the FRB's rule implementing the additional capital surcharge of between 1.0-4.5% on G-SIBs. Under the rule, we must annually calculate our surcharge under two prescribed methods and use the higher of the two surcharges. The G-SIB surcharge will be phased in beginning on January 1, 2016 and become fully effective on January 1, 2019. Based on year-end 2015 data, our 2017 G-SIB surcharge is 2.0% of the Company's RWAs. However, 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 periods.

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 under Basel III divided by the Company's total leverage exposure. Total leverage exposure consists of the total average on-balance sheet assets, plus off-balance sheet exposures, such as undrawn commitments and derivative exposures, less amounts permitted to be deducted from tier 1 capital. The rule, which becomes effective on January 1, 2018, will require a covered BHC to maintain a SLR of at least 5.0% (comprised of the 3.0% minimum requirement plus a supplementary leverage buffer of 2.0%) to avoid restrictions on capital distributions and discretionary bonus payments. The rule will also require that all of our insured depository institutions maintain a SLR of 6.0% under applicable regulatory capital adequacy guidelines.

In December 2016, the FRB finalized rules to address the amount of equity and unsecured long-term debt a U.S. G-SIB must hold to improve its resolvability and resiliency, often referred to as Total Loss Absorbing Capacity (TLAC). Under the rules, which become effective on January 1, 2019, U.S. G-SIBs will be required to have a minimum TLAC amount (consisting of CET1 capital and additional tier 1 capital issued directly by the top-tier or covered BHC plus eligible external long-term debt) equal to the greater of (i) 18% of RWAs and (ii) 7.5% of total leverage exposure (the denominator of the SLR calculation). Additionally, U.S. G-SIBs will be required to maintain (i) a TLAC buffer equal to 2.5% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method one of the G-SIB calculation plus any applicable countercyclical buffer that will be added to the 18% minimum and (ii) an external TLAC leverage buffer equal to 2.0% of total leverage exposure that will be added to the 7.5% minimum, in order to avoid restrictions on capital distributions and discretionary bonus payments. The rules will also require U.S. G-SIBs to have a minimum amount of eligible unsecured long-term debt equal to the greater of (i) 6.0% of RWAs plus the firm's applicable G-SIB capital surcharge calculated under method two of the G-SIB calculation and (ii) 4.5% of the total leverage exposure. In addition, the rules will impose certain restrictions on the operations and liabilities of the top-tier or covered BHC in order to further facilitate an orderly resolution, including prohibitions on the issuance of short-term debt to external investors and on entering into derivatives and certain other types of financial contracts with external counterparties. While the rules permit permanent grandfathering of a significant portion of otherwise ineligible long-term debt that was issued prior to December 31, 2016, long-term debt issued after that date must be fully compliant with the eligibility requirements of the rules in order to count toward the minimum TLAC amount. As a result of the rules, we will be required to issue additional long-term debt.

In September 2014, federal banking regulators issued a final rule that implements a quantitative liquidity requirement consistent with the liquidity coverage ratio (LCR) established by the BCBS. The rule requires banking institutions, such as Wells Fargo, to hold high-quality liquid assets, 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 FRB also finalized rules imposing enhanced liquidity management standards on large BHCs such as Wells Fargo, and has finalized a rule that requires large bank holding companies to publicly disclose on a quarterly basis beginning April 1, 2017 certain quantitative and qualitative information regarding their LCR calculations.

The ultimate impact of all of these finalized and proposed or contemplated rules on our capital and liquidity requirements will depend on final rulemaking and regulatory interpretation of the rules as we, along with our regulatory authorities, apply the final rules during the implementation process.

As part of its obligation to impose enhanced capital and risk-management standards on large financial firms pursuant to the Dodd-Frank Act, the FRB issued a final capital plan rule that requires large BHCs, including the Company, to submit annual capital plans for review and to obtain regulatory approval before making capital distributions. There can be no assurance that the FRB would respond favorably to the Company's future capital plans. The FRB has also finalized a number of regulations implementing enhanced prudential requirements for large BHCs like Wells Fargo regarding risk-based capital and leverage, risk and liquidity management, and imposing debt-to-equity limits on any BHC that regulators determine poses a grave threat to the financial stability of the United States. The FRB and OCC have also finalized rules implementing stress testing requirements for large BHCs and national banks. The FRB has also re-proposed, but not yet finalized, additional enhanced prudential standards that would implement single counterparty credit limits and establish remediation requirements for large BHCs experiencing financial distress. The OCC, under separate authority, has also established heightened governance and risk management standards for large national banks, such as Wells Fargo Bank, N.A.

The Basel standards and federal regulatory capital and liquidity requirements may limit or otherwise restrict how we utilize our capital, including common stock dividends and stock repurchases, and may require us to increase our capital and/or liquidity. Any requirement that we increase our regulatory capital, regulatory capital ratios or liquidity, including as a result of business growth, acquisitions or a change in our risk profile, could require us to liquidate assets or otherwise change our business, product offerings and/or investment plans, which may negatively affect our financial results. Although not currently anticipated, proposed capital requirements and/or our regulators may require us to raise additional capital in the future. Issuing additional common stock may dilute the ownership of existing stockholders. In addition, federal banking regulations may increase our compliance costs as well as limit our ability to invest in our business or provide loans or other products and services to our customers. For more information, refer to the "Capital Management" and "Regulatory Matters" sections in this Report and the "Regulation and Supervision" section of our 2016 Form 10-K.

FRB policies, including policies on interest rates, can significantly affect business and economic conditions and our financial results and condition. The FRB regulates the supply of money in the United States. Its policies determine in large part our cost of funds for lending and investing and the return we earn on those loans and investments, both of which affect our net interest income and net interest margin. The FRB's interest rate policies also can materially affect the value of financial instruments we hold, such as debt securities and MSRs. In addition, its policies can affect our borrowers, potentially increasing the risk that they may fail to repay their loans. Changes in FRB policies are beyond our control and can be hard to predict. The FRB recently increased the target range for the federal funds rate by 25 basis points to a target range of 50 to 75 basis points. The FRB has stated that in determining the timing and size of any future adjustments to the target range for the federal funds rate, the FRB will assess realized and expected economic conditions relative to its objectives of maximum employment and 2% inflation. The FRB has indicated an expectation that future increases in interest rates likely would be gradual and data dependent. As noted above, a declining or low interest rate environment and a flattening yield curve which may result from the FRB's actions could negatively affect our net interest income and net interest margin as it may result in us holding lower yielding loans and investment securities on our balance sheet.

RISKS RELATED TO CREDIT AND OUR MORTGAGE BUSINESS

As one of the largest lenders in the U.S., increased credit risk, including as a result of a deterioration in economic conditions, could require us to increase our provision for credit losses and allowance for credit losses and could have a material adverse effect on our results of operations and financial condition. When we loan money or commit to loan money we incur credit risk, or the risk of losses if our borrowers do not repay their loans. As one of the largest lenders in the U.S., the credit performance of our loan portfolios significantly affects our financial results and condition. As noted above, if the current economic environment were to deteriorate, more of our customers may have difficulty in repaying their loans or other obligations which could result in a higher level of credit losses and provision for credit losses. We reserve for credit losses by establishing an allowance through a charge to earnings. The amount of this allowance is based on our assessment of credit losses inherent in our loan portfolio (including unfunded credit commitments). The process for determining the amount of the allowance is critical to our financial results and condition. It requires difficult, subjective and complex judgments about the future, including forecasts of economic or market conditions that might impair the ability of our borrowers to repay their loans. We might increase the allowance because of changing economic conditions, including falling home prices and higher unemployment, significant loan growth, or other factors. For example, if oil prices remain low for a prolonged period of time, we may have to increase the allowance, particularly to cover potential losses on loans to customers in the energy sector. Additionally, the regulatory environment or external factors, such as natural disasters, also can influence recognition of credit losses in our loan portfolios and impact our allowance for credit losses.

Our provision for credit losses was $250 million more than net charge-offs in 2016 and $450 million less than net charge-offs in 2015, which had a positive effect on our earnings in 2015 but a negative effect in 2016. Future allowance levels may increase or decrease based on a variety of factors, including loan growth, portfolio performance and general economic conditions. While we believe that our allowance for credit losses was appropriate at December 31, 2016, there is no assurance that it will be sufficient to cover future credit losses, especially if housing and employment conditions worsen. In the event of significant deterioration in economic conditions or if we experience significant loan growth, we may be required to build reserves in future periods, which would reduce our earnings.

For more information, refer to the "Risk Management – Credit Risk Management" and "Critical Accounting Policies – Allowance for Credit Losses" sections in this Report.

We may have more credit risk and higher credit losses to the extent our loans are concentrated by loan type, industry segment, borrower type, or location of the borrower or collateral. Our credit risk and credit losses can increase if our loans are concentrated to borrowers engaged in the same or similar activities or to borrowers who individually or as a group may be uniquely or disproportionately affected by economic or market conditions. Similarly, challenging economic or market conditions affecting a particular industry or geography may also impact related or dependent industries or the ability of borrowers living in such affected areas or working in such industries to meet their financial obligations. We experienced the effect of concentration risk in 2009 and 2010 when we incurred greater than expected losses in our residential real estate loan portfolio due to a housing slowdown and greater than expected deterioration in residential real estate values in many markets, including the Central Valley California market and several Southern California metropolitan statistical areas. As California is our largest banking state in terms of loans and deposits, deterioration in real estate values and underlying economic conditions in those markets or elsewhere in California could result in materially higher credit losses. In addition, deterioration in macro-economic conditions generally across the country could result in materially higher credit losses, including for our residential real estate loan portfolio, which includes nonconforming mortgage loans we retain on our balance sheet. We may experience higher delinquencies and higher loss rates as our consumer real estate secured lines of credit reach their contractual end of draw period and begin to amortize. Additionally, we may experience higher delinquencies and higher loss rates as borrowers in our consumer Pick-a-Pay portfolio reach their recast trigger, particularly if interest rates increase significantly which may cause more borrowers to experience a payment increase of more than 7.5% upon recast.

We are currently one of the largest CRE lenders in the U.S. A deterioration in economic conditions that negatively affects the business performance of our CRE borrowers, including increases in interest rates and/or declines in commercial property values, could result in materially higher credit losses and have a material adverse effect on our financial results and condition.

Challenging foreign economic conditions, such as those occurring in the United Kingdom and parts of Europe, have increased our foreign credit risk. Our foreign loan exposure represented approximately 7% of our total consolidated outstanding loans and 3% of our total assets at December 31, 2016. Continued economic difficulties in these or other foreign jurisdictions could also indirectly have a material adverse effect on our credit performance and results of operations and financial condition to the extent they negatively affect the U.S. economy and/or our borrowers who have foreign operations.

Additionally, economic conditions in the oil and gas industry have increased our credit risk. Although our oil and gas portfolio represented 2% of our total outstanding loans at December 31, 2016, prolonged economic difficulties in this sector could have an adverse effect on our credit performance to the extent they negatively affect our customers who are dependent on the oil and gas industry. In particular, if oil prices remain low for a prolonged period of time, there could be additional performance deterioration in our oil and gas portfolio resulting in higher criticized assets, nonperforming loans, allowance levels and ultimately credit losses. Deteriorated performance can take the form of increased downgrades, borrower defaults, potentially higher commitment drawdowns prior to default, and downgraded borrowers being unable to fully access the capital markets. Furthermore, our loan exposure in communities where the employment base has a concentration in the oil and gas sector may experience some credit challenges.

For more information, refer to the "Risk Management – Credit Risk Management" section and Note 6 (Loans and Allowance for Credit Losses) to Financial Statements in this Report.

We may incur losses on loans, securities and other acquired assets of Wachovia that are materially greater than reflected in our fair value adjustments. We accounted for the Wachovia merger under the purchase method of accounting, recording the acquired assets and liabilities of Wachovia at fair value. All PCI loans acquired in the merger were recorded at fair value based on the present value of their expected cash flows. We estimated cash flows using internal credit, interest rate and prepayment risk models using assumptions about matters that are inherently uncertain. We may not realize the estimated cash flows or fair value of these loans. In addition, although the difference between the pre-merger carrying value of the credit-impaired loans and their expected cash flows – the "nonaccretable difference" – is available to absorb future charge-offs, we may be required to increase our allowance for credit losses and related provision expense because of subsequent additional credit deterioration in these loans.

For more information, refer to the "Critical Accounting Policies – Purchased Credit-Impaired (PCI) Loans" and "Risk Management – Credit Risk Management" sections in this Report.

Our mortgage banking revenue can be volatile from quarter to quarter, including as a result of changes in interest rates and the value of our MSRs and MHFS, and we rely on the GSEs to purchase our conforming loans to reduce our credit risk and provide liquidity to fund new mortgage loans. We were the largest mortgage originator and residential mortgage servicer in the U.S. as of December 31, 2016, and we earn revenue from fees we receive for originating mortgage loans and for servicing mortgage loans. As a result of our mortgage servicing business, we have a sizeable portfolio of MSRs. An MSR is the right to service a mortgage loan – collect principal, interest and escrow amounts – for a fee. We acquire MSRs when we keep the servicing rights after we sell or securitize the loans we have originated or when we purchase the servicing rights to mortgage loans originated by other lenders. We initially measure and carry all our residential MSRs using the fair value measurement method. Fair value is the present value of estimated future net servicing income, calculated based on a number of variables, including assumptions about the likelihood of prepayment by borrowers. Changes in interest rates can affect prepayment assumptions and thus fair value. When interest rates fall, borrowers are usually more likely to prepay their mortgage loans by refinancing them at a lower rate. As the likelihood of prepayment increases, the fair value of our MSRs can decrease. Each quarter we evaluate the fair value of our MSRs, and any decrease in fair value reduces earnings in the period in which the decrease occurs. We also measure at fair value MHFS for which an active secondary market and readily available market prices exist. In addition, we measure at fair value certain other interests we hold related to residential loan sales and securitizations. Similar to other interest-bearing securities, the value of these MHFS and other interests may be negatively affected by changes in interest rates. For example, if market interest rates increase relative to the yield on these MHFS and other interests, their fair value may fall.

When rates rise, the demand for mortgage loans usually tends to fall, reducing the revenue we receive from loan originations. Under the same conditions, revenue from our MSRs can increase through increases in fair value. When rates fall, mortgage originations usually tend to increase and the value of our MSRs usually tends to decline, also with some offsetting revenue effect. Even though they can act as a "natural hedge," the hedge is not perfect, either in amount or timing. For example, the negative effect on revenue from a decrease in the fair value of residential MSRs is generally immediate, but any offsetting revenue benefit from more originations and the MSRs relating to the new loans would generally accrue over time. It is also possible that, because of economic conditions and/or a weak or deteriorating housing market, even if interest rates were to fall or remain low, mortgage originations may also fall or any increase in mortgage originations may not be enough to offset the decrease in the MSRs value caused by the lower rates.

We typically use derivatives and other instruments to hedge our mortgage banking interest rate risk. We may not hedge all of our risk, and we may not be successful in hedging any of the risk. Hedging is a complex process, requiring sophisticated models and constant monitoring, and is not a perfect science. We may use hedging instruments tied to U.S. Treasury rates, LIBOR or Eurodollars that may not perfectly correlate with the value or income being hedged. We could incur significant losses from our hedging activities. There may be periods where we elect not to use derivatives and other instruments to hedge mortgage banking interest rate risk.

We rely on GSEs to purchase mortgage loans that meet their conforming loan requirements and on the Federal Housing Authority (FHA) to insure loans that meet their policy requirements. These loans are then securitized into either GSE or GNMA securities that are sold to investors. In order to meet customer needs, we also originate loans that do not conform to either GSE or FHA standards, which are referred to as "nonconforming" loans. We generally retain these nonconforming loans on our balance sheet. When we retain a loan on our balance sheet not only do we forgo fee revenue and keep the credit risk of the loan but we also do not receive any sale proceeds that could be used to generate new loans. If we were unable or unwilling to continue retaining nonconforming loans on our balance sheet, whether due to regulatory, business or other reasons, our ability to originate new mortgage loans may be reduced, thereby reducing the fees we earn from originating and servicing loans. Similarly, if the GSEs or the FHA were to limit or reduce their purchases or insuring of loans, our ability to fund, and thus originate new mortgage loans, could also be reduced. We cannot assure that the GSEs or the FHA will not materially limit their purchases or insuring of conforming loans or change their criteria for what constitutes a conforming loan (e.g., maximum loan amount or borrower eligibility). Each of the GSEs is currently in conservatorship, with its primary regulator, the Federal Housing Finance Agency acting as conservator. We cannot predict if, when or how the conservatorship will end, or any associated changes to the GSEs business structure and operations that could result. As noted above, there are various proposals to reform the housing finance market in the U.S., including the role of the GSEs in the housing finance market. The impact of any such regulatory reform regarding the housing finance market and the GSEs, including whether the GSEs will continue to exist in their current form, as well as any effect on the Company's business and financial results, are uncertain.

For more information, refer to the "Risk Management – Asset/Liability Management – Mortgage Banking Interest Rate and Market Risk" and "Critical Accounting Policies" sections in this Report.

We may be required to repurchase mortgage loans or reimburse investors and others as a result of breaches in contractual representations and warranties, and we may incur other losses as a result of real or alleged violations of statutes or regulations applicable to the origination of our residential mortgage loans. The origination of residential mortgage loans is governed by a variety of federal and state laws and regulations, including the Truth in Lending Act of 1968 and various anti-fraud and consumer protection statutes, which are complex and frequently changing. We often sell residential mortgage loans that we originate to various parties, including GSEs, SPEs that issue private label MBS, and other financial institutions that purchase mortgage loans for investment or private label securitization. We may also pool FHA-insured and VA-guaranteed mortgage loans which back securities guaranteed by GNMA. The agreements under which we sell mortgage loans and the insurance or guaranty agreements with the FHA and VA contain various representations and warranties regarding the origination and characteristics of the mortgage loans, including ownership of the loan, compliance with loan criteria set forth in the applicable agreement, validity of the lien securing the loan, absence of delinquent taxes or liens against the property securing the loan, and compliance with applicable origination laws. We may be required to repurchase mortgage loans, indemnify the securitization trust, investor or insurer, or reimburse the securitization trust, investor or insurer for credit losses incurred on loans in the event of a breach of contractual representations or warranties that is not remedied within a period (usually 90 days or less) after we receive notice of the breach. Contracts for mortgage loan sales to the GSEs include various types of specific remedies and penalties that could be applied to inadequate responses to repurchase requests. Similarly, the agreements under which we sell mortgage loans require us to deliver various documents to the securitization trust or investor, and we may be obligated to repurchase any mortgage loan as to which the required documents are not delivered or are defective. We may negotiate global settlements in order to resolve a pipeline of demands in lieu of repurchasing the loans. We establish a mortgage repurchase liability related to the various representations and warranties that reflect management's estimate of losses for loans which we have a repurchase obligation. Our mortgage repurchase liability represents management's best estimate of the probable loss that we may expect to incur for the representations and warranties in the contractual provisions of our sales of mortgage loans. Because the level of mortgage loan repurchase losses depends upon economic factors, investor demand strategies and other external conditions that may change over the life of the underlying loans, the level of the liability for mortgage loan repurchase losses is difficult to estimate and requires considerable management judgment. As a result of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that are reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. If economic conditions or the housing market worsen or future investor repurchase demand and our success at appealing repurchase requests differ from past experience, we could have increased repurchase obligations and increased loss severity on repurchases, requiring significant additions to the repurchase liability.

Additionally, for residential mortgage loans that we originate, borrowers may allege that the origination of the loans did not comply with applicable laws or regulations in one or more respects and assert such violation as an affirmative defense to payment or to the exercise by us of our remedies, including foreclosure proceedings, or in an action seeking statutory and other damages in connection with such violation. If we are not successful in demonstrating that the loans in dispute were originated in accordance with applicable statutes and regulations, we could become subject to monetary damages and other civil penalties, including the loss of certain contractual payments or the inability to exercise certain remedies under the loans.

For more information, refer to the "Risk Management – Credit Risk Management – Liability for Mortgage Loan Repurchase Losses" section in this Report.

We may be terminated as a servicer or master servicer, be required to repurchase a mortgage loan or reimburse investors for credit losses on a mortgage loan, or incur costs, liabilities, fines and other sanctions if we fail to satisfy our servicing obligations, including our obligations with respect to mortgage loan foreclosure actions. We act as servicer and/or master servicer for mortgage loans included in securitizations and for unsecuritized mortgage loans owned by investors. As a servicer or master servicer for those loans we have certain contractual obligations to the securitization trusts, investors or other third parties, including, in our capacity as a servicer, foreclosing on defaulted mortgage loans or, to the extent consistent with the applicable securitization or other investor agreement, considering alternatives to foreclosure such as loan modifications or short sales and, in our capacity as a master servicer, overseeing the servicing of mortgage loans by the servicer. If we commit a material breach of our obligations as servicer or master servicer, we may be subject to termination if the breach is not cured within a specified period of time following notice, which can generally be given by the securitization trustee or a specified percentage of security holders, causing us to lose servicing income. In addition, we may be required to indemnify the securitization trustee against losses from any failure by us, as a servicer or master servicer, to perform our servicing obligations or any act or omission on our part that involves willful misfeasance, bad faith or gross negligence. For certain investors and/or certain transactions, we may be contractually obligated to repurchase a mortgage loan or reimburse the investor for credit losses incurred on the loan as a remedy for servicing errors with respect to the loan. If we have increased repurchase obligations because of claims that we did not satisfy our obligations as a servicer or master servicer, or increased loss severity on such repurchases, we may have a significant reduction to net servicing income within mortgage banking noninterest income.

We may incur costs if we are required to, or if we elect to, re-execute or re-file documents or take other action in our capacity as a servicer in connection with pending or completed foreclosures. We may incur litigation costs if the validity of a foreclosure action is challenged by a borrower. If a court were to overturn a foreclosure because of errors or deficiencies in the foreclosure process, we may have liability to the borrower and/or to any title insurer of the property sold in foreclosure if the required process was not followed. We may also incur costs if we are unable to meet certain foreclosure timelines as prescribed by GSE or other government servicing guidelines. These costs and liabilities may not be legally or otherwise reimbursable to us, particularly to the extent they relate to securitized mortgage loans. In addition, if certain documents required for a foreclosure action are missing or defective, we could be obligated to cure the defect or repurchase the loan. We may incur liability to securitization investors relating to delays or deficiencies in our processing of mortgage assignments or other documents necessary to comply with state law governing foreclosures. The fair value of our MSRs may be negatively affected to the extent our servicing costs increase because of higher foreclosure related costs. We may be subject to fines and other sanctions imposed by federal or state regulators as a result of actual or perceived deficiencies in our foreclosure practices or in the foreclosure practices of other mortgage loan servicers. Any of these actions may harm our reputation, negatively affect our residential mortgage origination or servicing business, or result in material fines, penalties, equitable remedies, or other enforcement actions.

In particular, in June 2015, we entered into an amendment to an April 2011 Consent Order with the OCC to address 15 of the 98 actionable items contained in the April 2011 Consent Order that were still considered open. This amendment required that we remediate certain activities associated with our mortgage loan servicing practices and allowed for the OCC to take additional supervisory action, including possible civil money penalties, if we did not comply with the terms of this amended Consent Order. In addition, this amendment prohibited us from acquiring new mortgage servicing rights or entering into new mortgage servicing contracts, other than mortgage servicing associated with originating mortgage loans or purchasing loans from correspondent clients in our normal course of business. Additionally, this amendment prohibited any new off-shoring of new mortgage servicing activities and required OCC approval to outsource or sub-service any new mortgage servicing activities. On May 25, 2016, the OCC announced that it had terminated the amended Consent Order and the underlying April 2011 Consent Order after determining that we were in compliance with their requirements. The termination of the orders ends the business restrictions affecting Wells Fargo that the OCC mandated in June 2015. The OCC also assessed a $70 million civil money penalty against us for previous violations of the orders. As noted above, any increase in our servicing costs from changes in our foreclosure and other servicing practices, including resulting from consent orders, could negatively affect the fair value of our MSRs.

For more information, refer to the "Risk Management – Credit Risk Management – Liability for Mortgage Loan Repurchase Losses" and "– Risks Relating to Servicing Activities," and "Critical Accounting Policies – Valuation of Residential Mortgage Servicing Rights" sections and Note 14 (Guarantees, Pledged Assets and Collateral) and Note 15 (Legal Actions) to Financial Statements in this Report.

Financial difficulties or credit downgrades of mortgage and bond insurers may negatively affect our servicing and investment portfolios. Our servicing portfolio includes certain mortgage loans that carry some level of insurance from one or more mortgage insurance companies. To the extent that any of these companies experience financial difficulties or credit downgrades, we may be required, as servicer of the insured loan on behalf of the investor, to obtain replacement coverage with another provider, possibly at a higher cost than the coverage we would replace. We may be responsible for some or all of the incremental cost of the new coverage for certain loans depending on the terms of our servicing agreement with the investor and other circumstances, although we do not have an additional risk of repurchase loss associated with claim amounts for loans sold to third-party investors. Similarly, some of the mortgage loans we hold for investment or for sale carry mortgage insurance. If a mortgage insurer is unable to meet its credit obligations with respect to an insured loan, we might incur higher credit losses if replacement coverage is not obtained. For example, in October 2011, PMI Mortgage Insurance Co. (PMI) was seized by its regulator. Although only a limited amount of loans and securities held in our portfolios had PMI insurance support, we cannot be certain that any future financial difficulties or credit downgrades involving one of our mortgage insurance company providers will not materially adversely affect our mortgage business and/or financial results. We also have investments in municipal bonds that are guaranteed against loss by bond insurers. The value of these bonds and the payment of principal and interest on them may be negatively affected by financial difficulties or credit downgrades experienced by the bond insurers.

For more information, refer to the “Balance Sheet Analysis – Investment Securities” and “Risk Management – Credit Risk Management– Liability for Mortgage Loan Repurchase Losses” sections in this Report.

OPERATIONAL AND LEGAL RISK

A failure in or breach of our operational or security systems or infrastructure, or those of our third party vendors and other service providers, including as a result of cyber attacks, could disrupt our businesses, result in the disclosure or misuse of confidential or proprietary information, damage our reputation, increase our costs and cause losses. As a large financial institution that serves over 70 million customers through more than 8,600 locations, 13,000 ATMs, the internet, mobile banking and other distribution channels across the U.S. and internationally, we depend on our ability to process, record and monitor a large number of customer transactions on a continuous basis. As our customer base and locations have expanded throughout the U.S. and internationally, and as customer, public, legislative and regulatory expectations regarding operational and information security have increased, our operational systems and infrastructure must continue to be safeguarded and monitored for potential failures, disruptions and breakdowns. Our business, financial, accounting, data processing systems or other operating systems and facilities may stop operating properly or become disabled or damaged as a result of a number of factors including events that are wholly or partially beyond our control. For example, there could be sudden increases in customer transaction volume; electrical or telecommunications outages; degradation or loss of internet or website availability; climate change related impacts and natural disasters such as earthquakes, tornados, and hurricanes; disease pandemics; events arising from local or larger scale political or social matters, including terrorist acts; and, as described below, cyber attacks. Although we have business continuity plans and other safeguards in place, our business operations may be adversely affected by significant and widespread disruption to our physical infrastructure or operating systems that support our businesses and customers.

Information security risks for large financial institutions such as Wells Fargo have generally increased in recent years in part because of the proliferation of new technologies, the use of the internet and telecommunications technologies to conduct financial transactions, and the increased sophistication and activities of organized crime, hackers, terrorists, activists, and other external parties, including foreign state-sponsored parties. Those parties also may attempt to fraudulently induce employees, customers, or other users of our systems to disclose confidential information in order to gain access to our data or that of our customers. As noted above, our operations rely on the secure processing, transmission and storage of confidential information in our computer systems and networks. Our banking, brokerage, investment advisory, and capital markets businesses rely on our digital technologies, computer and email systems, software, and networks to conduct their operations. In addition, to access our products and services, our customers may use personal smartphones, tablet PC’s, and other mobile devices that are beyond our control systems. Although we believe we have robust information security procedures and controls, our technologies, systems, networks, and our customers’ devices may become the target of cyber attacks or information security breaches that could result in the unauthorized release, gathering, monitoring, misuse, loss or destruction of Wells Fargo’s or our customers’ confidential, proprietary and other information, or otherwise disrupt Wells Fargo’s or its customers’ or other third parties’ business operations. For example, various retailers have reported they were victims of cyber attacks in which large amounts of their customers’ data, including debit and credit card information, was obtained. In these situations we generally incur costs to replace compromised cards and address fraudulent transaction activity affecting our customers.

Third parties with which we do business or that facilitate our business activities, including exchanges, clearing houses, financial intermediaries or vendors that provide services or security solutions for our operations, could also be sources of operational risk and information security risk to us, including from cyber attacks, information breaches or loss, breakdowns, disruptions or failures of their own systems or infrastructure, or any deficiencies in the performance of their responsibilities. Furthermore, as a result of financial institutions and technology systems becoming more interconnected and complex, any operational or information security incident at a third party may increase the risk of loss or material impact to us or the financial industry as a whole. Moreover, because we rely on third parties to provide services to us and facilitate certain of our business activities, we face increased operational risk. If third parties we rely on do not adequately or appropriately provide their services or perform their responsibilities, we may suffer material harm, including business disruptions, losses or costs to remediate any of the deficiencies, reputational damage, legal or regulatory proceedings, or other adverse consequences.

To date we have not experienced any material losses relating to cyber attacks or other information security breaches, but there can be no assurance that we will not suffer such losses in the future. Our risk and exposure to these matters remains heightened because of, among other things, the evolving nature of these threats, the prominent size and scale of Wells Fargo and its role in the financial services industry, our plans to continue to implement our internet banking and mobile banking channel strategies and develop additional remote connectivity solutions to serve our customers when and how they want to be served, our expanded geographic footprint and international presence, the outsourcing of some of our business operations, and the current global economic and political environment. For example, Wells Fargo and other financial institutions continue to be the target of various evolving and adaptive cyber attacks, including malware and denial-of-service, as part of an effort to disrupt the operations of financial institutions, potentially test their cybersecurity capabilities, or obtain confidential, proprietary or other information. Cyber attacks have also focused on targeting the infrastructure of the internet, causing the widespread unavailability of websites and degrading website performance. As a result, cybersecurity and the continued development and enhancement of our controls, processes and systems designed to protect our networks, computers, software and data from attack, damage or unauthorized access remain a priority for Wells Fargo. We are also proactively involved in industry cybersecurity efforts and working with other parties, including our third-party service providers and governmental agencies, to continue to enhance defenses and improve resiliency to cybersecurity threats. As cyber threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities or incidents.

Disruptions or failures in the physical infrastructure or operating systems that support our businesses and customers, cyber attacks on us or third parties with which we do business or that facilitate our business activities, or security breaches of the networks, systems or devices that our customers use to access our products and services could result in customer attrition, financial losses, the inability of our customers to transact business with us, violations of applicable privacy and other laws, regulatory fines, penalties or intervention, litigation exposure, reputational damage, reimbursement or other compensation costs, and/or additional compliance costs, any of which could materially adversely affect our results of operations or financial condition.

Our framework for managing risks may not be fully effective in mitigating risk and loss to us. Our risk management framework seeks to mitigate risk and loss to us. We have established processes and procedures intended to identify, measure, monitor, report and analyze the types of risk to which we are subject, including liquidity risk, credit risk, market risk, interest rate risk, operational risk, legal and compliance risk, and reputational risk, among others. However, as with any risk management framework, there are inherent limitations to our risk management strategies as there may exist, or develop in the future, risks that we have not appropriately anticipated or identified. In certain instances, we rely on models to measure, monitor and predict risks, such as market and interest rate risks, as well as to help inform business decisions; however, there is no assurance that these models will appropriately capture all relevant risks or accurately predict future events or exposures. In addition, we rely on data to aggregate and assess our various risk exposures and any issues with the quality or effectiveness of our data aggregation and validation procedures could result in ineffective risk management practices or inaccurate regulatory or other risk reporting. The recent financial and credit crisis and resulting regulatory reform highlighted both the importance and some of the limitations of managing unanticipated risks, and our regulators remain focused on ensuring that financial institutions build and maintain robust risk management policies and practices. If our risk management framework proves ineffective, we could suffer unexpected losses which could materially adversely affect our results of operations or financial condition.

Risks Related to Sales Practices. Various government entities and offices, as well as Congressional committees, have undertaken formal or informal inquiries, investigations or examinations arising out of certain sales practices of the Company that were the subject of settlements with the Consumer Financial Protection Bureau, the Office of the Comptroller of the Currency and the Office of the Los Angeles City Attorney announced by the Company on September 8, 2016. In addition to imposing monetary penalties and other sanctions, regulatory authorities may require admissions of wrongdoing and compliance with other conditions in connection with such matters, which can lead to restrictions on our ability to engage in certain business activities or offer certain products or services, limitations on our ability to access capital markets, limitations on capital distributions, the loss of customers, and/or other direct and indirect adverse consequences. A number of lawsuits have also been filed by non-governmental parties seeking damages or other remedies related to these sales practices. The ultimate resolution of any of these pending legal proceedings or government investigations, depending on the sanctions and remedy sought and granted, could materially adversely affect our results of operations and financial condition. We may also incur additional costs and expenses in order to address and defend these pending legal proceedings and government investigations, and we may have increased compliance and other costs related to these matters. Furthermore, negative publicity or public opinion resulting from these matters may increase the risk of reputational harm to our business, which can impact our ability to keep and attract customers, our ability to attract and retain qualified team members, result in the loss of revenue, or have other material adverse effects on our results of operations and financial condition. In addition, we have expanded the time period of our review and our data analysis efforts related to sales practices matters remain ongoing, including our review and validation of the identification of potentially unauthorized accounts by a third party consulting firm. The ultimate results and conclusions of this work as well as the ongoing internal investigation by the independent directors of our Board are still pending and could lead to an increase in the identified number of potentially impacted customers, additional legal or regulatory proceedings, compliance and other costs, reputational damage, the identification of issues in our practices or methodologies that were used to identify, prevent or remediate sales practices related matters, the loss of additional team members, or further changes in policies and procedures that may impact our business.

For more information, refer to Note 15 (Legal Actions) to Financial Statements in this Report.

We may incur fines, penalties and other negative consequences from regulatory violations, possibly even inadvertent or unintentional violations, or from any failure to meet regulatory standards or expectations. We maintain systems and procedures designed to ensure that we comply with applicable laws and regulations. However, we are subject to heightened compliance and regulatory oversight and expectations, particularly due to the evolving and increasing regulatory landscape we operate in. In addition, some legal/regulatory frameworks provide for the imposition of fines or penalties for noncompliance even though the noncompliance was inadvertent or unintentional and even though there was in place at the time systems and procedures designed to ensure compliance. For example, we are subject to regulations issued by the Office of Foreign Assets Control (OFAC) that prohibit financial institutions from participating in the transfer of property belonging to the governments of certain foreign countries and designated nationals of those countries. OFAC may impose penalties or restrictions on certain activities for inadvertent or unintentional violations even if reasonable processes are in place to prevent the violations. Any violation of these or other applicable laws or regulatory requirements, even if inadvertent or unintentional, or any failure to meet regulatory standards or expectations could result in fees, penalties, restrictions on our ability to engage in certain business activities, reputational harm, loss of customers or other negative consequences.

Negative publicity, including as a result of our actual or alleged conduct or public opinion of the financial services industry generally, could damage our reputation and business. Reputation risk, or the risk to our business, earnings and capital from negative public opinion, is inherent in our business and has increased substantially because of the financial crisis, our size and profile in the financial services industry, and sales practices related matters. The reputation of the financial services industry in general has been damaged as a result of the financial crisis and other matters affecting the financial services industry, and negative public opinion about the financial services industry generally or Wells Fargo specifically could adversely affect our ability to keep and attract customers. Negative public opinion could result from our actual or alleged conduct in any number of activities, including sales practices, mortgage lending practices, servicing and foreclosure activities, lending or other business relationships, corporate governance, regulatory compliance, mergers and acquisitions, and disclosure, sharing or inadequate protection of customer information, and from actions taken by government regulators and community or other organizations in response to that conduct. Although we have policies and procedures in place intended to detect and prevent conduct by team members and third party service providers that could potentially harm customers or our reputation, there is no assurance that such policies and procedures will be fully effective in preventing such conduct. In addition, because we conduct most of our businesses under the “Wells Fargo” brand, negative public opinion about one business also could affect our other businesses. The proliferation of social media websites utilized by Wells Fargo and other third parties, as well as the personal use of social media by our team members and others, including personal blogs and social network profiles, also may increase the risk that negative, inappropriate or unauthorized information may be posted or released publicly that could harm our reputation or have other negative consequences, including as a result of our team members interacting with our customers in an unauthorized manner in various social media outlets.

As a result of the financial crisis, Wells Fargo and other financial institutions have been targeted from time to time by protests and demonstrations, which have included disrupting the operation of our retail banking locations and have resulted in negative public commentary about financial institutions, including the fees charged for various products and services. There can be no assurance that continued protests or negative publicity for the Company specifically or large financial institutions generally will not harm our reputation and adversely affect our business and financial results.

Risks Relating to Legal Proceedings. Wells Fargo and some of its subsidiaries are involved in judicial, regulatory and arbitration proceedings or investigations concerning matters arising from our business activities. Although we believe we have a meritorious defense in all significant litigation pending against us, there can be no assurance as to the ultimate outcome. We establish reserves for legal claims when payments associated with the claims become probable and the costs can be reasonably estimated. We may still incur legal costs for a matter even if we have not established a reserve. In addition, the actual cost of resolving a legal claim may be substantially higher than any amounts reserved for that matter. The ultimate resolution of a pending legal proceeding or investigation, depending on the remedy sought and granted, could materially adversely affect our results of operations and financial condition.

As noted above, we are subject to heightened regulatory oversight and scrutiny, which may lead to regulatory investigations, proceedings or enforcement actions. In addition to imposing monetary penalties and other sanctions, regulatory authorities may require admissions of wrongdoing and compliance with other conditions in connection with settling such matters, which can lead to reputational harm, loss of customers, restrictions on the ability to access capital markets, limitations on capital distributions, the inability to engage in certain business activities or offer certain products or services, and/or other direct and indirect adverse effects.

For more information, refer to Note 15 (Legal Actions) to Financial Statements in this Report.

RISKS RELATED TO OUR INDUSTRY’S COMPETITIVE OPERATING ENVIRONMENT

We face significant and increasing competition in the rapidly evolving financial services industry. We compete with other financial institutions in a highly competitive industry that is undergoing significant changes as a result of financial regulatory reform, technological advances, increased public scrutiny stemming from the financial crisis and continued challenging economic conditions. Our success depends on our ability to develop and maintain deep and enduring relationships with our customers based on the quality of our customer service, the wide variety of products and services that we can offer our customers and the ability of those products and services to satisfy our customers’ needs, the pricing of our products and services, the extensive distribution channels available for our customers, our innovation, and our reputation. Continued or increased competition in any one or all of these areas may negatively affect our customer relationships, market share and results of operations and/or cause us to increase our capital investment in our businesses in order to remain competitive. In addition, our ability to reposition or reprice our products and services from time to time may be limited and could be influenced significantly by the current economic, regulatory and political environment for large financial institutions as well as by the actions of our competitors. Furthermore, any changes in the types of products and services that we offer our customers and/or the pricing for those products and services could result in a loss of customer relationships and market share and could materially adversely affect our results of operations.

Continued technological advances and the growth of e-commerce have made it possible for non-depository institutions to offer products and services that traditionally were banking products, and for financial institutions and other companies to provide electronic and internet-based financial solutions, including electronic securities trading, lending and payment solutions. We may not respond effectively to these and other competitive threats from existing and new competitors and may be forced to sell products at lower prices, increase our investment in our business to modify or adapt our existing products and services, and/or develop new products and services to respond to our customers' needs. To the extent we are not successful in developing and introducing new products and services or responding or adapting to the competitive landscape or to changes in customer preferences, we may lose customer relationships and our revenue growth and results of operations may be materially adversely affected.

Our ability to attract and retain qualified team members is critical to the success of our business and failure to do so could adversely affect our business performance, competitive position and future prospects. The success of Wells Fargo is heavily dependent on the talents and efforts of our team members, and in many areas of our business, including commercial banking, brokerage, investment advisory, capital markets, risk management and technology, the competition for highly qualified personnel is intense. We also seek to retain a pipeline of team members to provide continuity of succession for our senior leadership positions. In order to attract and retain highly qualified team members, we must provide competitive compensation. As a large financial institution and additionally to the extent we remain subject to consent orders we may be subject to limitations on compensation by our regulators that may adversely affect our ability to attract and retain these qualified team members, especially if some of our competitors may not be subject to these same compensation limitations. If we are unable to continue to attract and retain qualified team members, including successors for senior leadership positions, our business performance, competitive position and future prospects may be adversely affected.

RISKS RELATED TO OUR FINANCIAL STATEMENTS

Changes in accounting policies or accounting standards, and changes in how accounting standards are interpreted or applied, could materially affect how we report our financial results and condition. Our accounting policies are fundamental to determining and understanding our financial results and condition. As described below, some of these policies require use of estimates and assumptions that may affect the value of our assets or liabilities and financial results. Any changes in our accounting policies could materially affect our financial statements.

From time to time the FASB and the SEC change the financial accounting and reporting standards that govern the preparation of our external financial statements. For example, Accounting Standards Update 2016-13 - *Financial Instruments-Credit Losses* (Topic 326), which becomes effective in first quarter 2020, will replace the current "incurred loss" model for the allowance for credit losses with an "expected loss" model referred to as the Current Expected Credit Loss model, or CECL. CECL could materially affect how we determine our allowance and report our financial results and condition.

In addition, accounting standard setters and those who interpret the accounting standards (such as the FASB, SEC, banking regulators and our outside auditors) may change or even reverse their previous interpretations or positions on how these standards should be applied. Changes in financial accounting and reporting standards and changes in current interpretations may be beyond our control, can be hard to predict and could materially affect how we report our financial results and condition. We may be required to apply a new or revised standard retroactively or apply an existing standard differently, also retroactively, in each case potentially resulting in our restating prior period financial statements in material amounts.

For more information, refer to the "Current Accounting Developments" section in this Report.

Our financial statements are based in part on assumptions and estimates which, if wrong, could cause unexpected losses in the future, and our financial statements depend on our internal controls over financial reporting. Pursuant to U.S. GAAP, we are required to use certain assumptions and estimates in preparing our financial statements, including in determining credit loss reserves, reserves for mortgage repurchases, reserves related to litigation and the fair value of certain assets and liabilities, among other items. Several of our accounting 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. For a description of these policies, refer to the "Critical Accounting Policies" section in this Report. If assumptions or estimates underlying our financial statements are incorrect, we may experience material losses.

Certain of our financial instruments, including trading assets, derivative assets and liabilities, investment securities, certain loans, MSRs, private equity investments, structured notes and certain repurchase and resale agreements, among other items, require a determination of their fair value in order to prepare our financial statements. Where quoted market prices are not available, we may make fair value determinations based on internally developed models or other means which ultimately rely to some degree on management judgment, and there is no assurance that our models will capture or appropriately reflect all relevant inputs required to accurately determine fair value. Some of these and other assets and liabilities may have no direct observable price levels, making their valuation particularly subjective, being based on significant estimation and judgment. In addition, sudden illiquidity in markets or declines in prices of certain loans and securities may make it more difficult to value certain balance sheet items, which may lead to the possibility that such valuations will be subject to further change or adjustment and could lead to declines in our earnings.

The Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley) requires our management to evaluate the Company's disclosure controls and procedures and its internal control over financial reporting and requires our auditors to issue a report on our internal control over financial reporting. We are required to disclose, in our annual report on Form 10-K, the existence of any "material weaknesses" in our internal controls. We cannot assure that we will not identify one or more material weaknesses as of the end of any given quarter or year, nor can we predict the effect on our stock price of disclosure of a material weakness. Sarbanes-Oxley also limits the types of non-audit services our outside auditors may provide to us in order to preserve their independence from us. If our auditors were found not to be "independent" of us under SEC rules, we could be required to engage new auditors and re-file financial statements and audit reports with the SEC. We could be out of compliance with SEC rules until new financial statements and audit reports were filed, limiting our ability to raise capital and resulting in other adverse consequences.

RISKS RELATED TO ACQUISITIONS

Acquisitions could reduce our stock price upon announcement and reduce our earnings if we overpay

or have difficulty integrating them. We regularly explore opportunities to acquire companies or businesses in the financial services industry. We cannot predict the frequency, size or timing of our acquisitions, and we typically do not comment publicly on a possible acquisition until we have signed a definitive agreement. When we do announce an acquisition, our stock price may fall depending on the size of the acquisition, the type of business to be acquired, the purchase price, and the potential dilution to existing stockholders or our earnings per share if we issue common stock in connection with the acquisition.

We generally must receive federal regulatory approvals before we can acquire a bank, bank holding company or certain other financial services businesses depending on the size of the financial services business to be acquired. In deciding whether to approve a proposed acquisition, federal bank regulators will consider, among other factors, the effect of the acquisition on competition and the risk to the stability of the U.S. banking or financial system, our financial condition and future prospects including current and projected capital ratios and levels, the competence, experience, and integrity of management and record of compliance with laws and regulations, the convenience and needs of the communities to be served, including our record of compliance under the Community Reinvestment Act, and our effectiveness in combating money laundering. As a result of the Dodd-Frank Act and concerns regarding the large size of financial institutions such as Wells Fargo, the regulatory process for approving acquisitions has become more complex and regulatory approvals may be more difficult to obtain. We cannot be certain when or if, or on what terms and conditions, any required regulatory approvals will be granted. We might be required to sell banks, branches and/or business units or assets or issue additional equity as a condition to receiving regulatory approval for an acquisition. In addition, federal law prohibits regulatory approval of any transaction that would create an institution holding more than 10% of total U.S. insured deposits, or of any transaction (whether or not subject to prior approval) that would create a financial company with more than 10% of the liabilities of all financial companies in the U.S. As of September 30, 2016, we believe we already held more than 10% of total U.S. deposits. As a result, our size may limit our bank acquisition opportunities in the future.

Difficulty in integrating an acquired company or business may cause us not to realize expected revenue increases, cost savings, increases in geographic or product presence, and other projected benefits from the acquisition. The integration could result in higher than expected deposit attrition, loss of key team members, an increase in our compliance costs or risk profile, disruption of our business or the acquired business, or otherwise harm our ability to retain customers and team members or achieve the anticipated benefits of the acquisition. Time and resources spent on integration may also impair our ability to grow our existing businesses. Also, the negative effect of any divestitures required by regulatory authorities in acquisitions or business combinations may be greater than expected. Many of the foregoing risks may be increased if the acquired company or business operates internationally or in a geographic location where we do not already have significant business operations and/or team members.

* * *

Any factor described in this Report or in any of our other SEC filings could by itself, or together with other factors, adversely affect our financial results and condition. Refer to our quarterly reports on Form 10-Q filed with the SEC in 2017 for material changes to the above discussion of risk factors. There are factors not discussed above or elsewhere in this Report that could adversely affect our financial results and condition.

Controls and Procedures

Disclosure Controls and Procedures

The Company's management evaluated the effectiveness, as of December 31, 2016, 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 December 31, 2016.

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 any quarter in 2016 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting. Management's report on internal control over financial reporting is set forth below and should be read with these limitations in mind.

Management's Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016, using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control – Integrated Framework (2013)*. Based on this assessment, management concluded that as of December 31, 2016, the Company's internal control over financial reporting was effective.

KPMG LLP, the independent registered public accounting firm that audited the Company's financial statements included in this Annual Report, issued an audit report on the Company's internal control over financial reporting. KPMG's audit report appears on the following page.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Wells Fargo & Company:

We have audited Wells Fargo & Company and Subsidiaries' (the Company) internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of the Company as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016, and our report dated March 1, 2017, expressed an unqualified opinion on those consolidated financial statements.

KPMG LLP

San Francisco, California
March 1, 2017

Financial Statements

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Income

		Year ended December 31,	
(in millions, except per share amounts)	**2016**	2015	2014
Interest income			
Trading assets	**$ 2,506**	1,971	1,685
Investment securities	**9,248**	8,937	8,438
Mortgages held for sale	**784**	785	767
Loans held for sale	**9**	19	78
Loans	**39,505**	36,575	35,652
Other interest income	**1,611**	990	932
Total interest income	**53,663**	49,277	47,552
Interest expense			
Deposits	**1,395**	963	1,096
Short-term borrowings	**330**	64	59
Long-term debt	**3,830**	2,592	2,488
Other interest expense	**354**	357	382
Total interest expense	**5,909**	3,976	4,025
Net interest income	**47,754**	45,301	43,527
Provision for credit losses	**3,770**	2,442	1,395
Net interest income after provision for credit losses	**43,984**	42,859	42,132
Noninterest income			
Service charges on deposit accounts	**5,372**	5,168	5,050
Trust and investment fees	**14,243**	14,468	14,280
Card fees	**3,936**	3,720	3,431
Other fees	**3,727**	4,324	4,349
Mortgage banking	**6,096**	6,501	6,381
Insurance	**1,268**	1,694	1,655
Net gains from trading activities	**834**	614	1,161
Net gains on debt securities (1)	**942**	952	593
Net gains from equity investments (2)	**879**	2,230	2,380
Lease income	**1,927**	621	526
Other	**1,289**	464	1,014
Total noninterest income	**40,513**	40,756	40,820
Noninterest expense			
Salaries	**16,552**	15,883	15,375
Commission and incentive compensation	**10,247**	10,352	9,970
Employee benefits	**5,094**	4,446	4,597
Equipment	**2,154**	2,063	1,973
Net occupancy	**2,855**	2,886	2,925
Core deposit and other intangibles	**1,192**	1,246	1,370
FDIC and other deposit assessments	**1,168**	973	928
Other	**13,115**	12,125	11,899
Total noninterest expense	**52,377**	49,974	49,037
Income before income tax expense	**32,120**	33,641	33,915
Income tax expense	**10,075**	10,365	10,307
Net income before noncontrolling interests	**22,045**	23,276	23,608
Less: Net income from noncontrolling interests	**107**	382	551
Wells Fargo net income	**$ 21,938**	22,894	23,057
Less: Preferred stock dividends and other	**1,565**	1,424	1,236
Wells Fargo net income applicable to common stock	**$ 20,373**	21,470	21,821
Per share information			
Earnings per common share	**$ 4.03**	4.18	4.17
Diluted earnings per common share	**3.99**	4.12	4.10
Dividends declared per common share	**1.515**	1.475	1.350
Average common shares outstanding	**5,052.8**	5,136.5	5,237.2
Diluted average common shares outstanding	**5,108.3**	5,209.8	5,324.4

(1) Total other-than-temporary impairment (OTTI) losses were $207 million, $136 million and $18 million for the years ended December 31, 2016, 2015 and 2014, respectively. Of total OTTI, losses of $189 million, $183 million and $49 million were recognized in earnings, and losses (reversal of losses) of $18 million, $(47) million and $(31) million were recognized as non-credit-related OTTI in other comprehensive income for the years ended December 31, 2016, 2015 and 2014, respectively.
(2) Includes OTTI losses of $453 million, $376 million and $273 million for the years ended December 31, 2016, 2015 and 2014, respectively.

The accompanying notes are an integral part of these statements.

Consolidated Statement of Comprehensive Income

		Year ended December 31,	
(in millions)	**2016**	2015	2014
Wells Fargo net income	$ **21,938**	22,894	23,057
Other comprehensive income (loss), before tax:			
Investment securities:			
Net unrealized gains (losses) arising during the period	**(3,458)**	(3,318)	5,426
Reclassification of net gains to net income	**(1,240)**	(1,530)	(1,532)
Derivatives and hedging activities:			
Net unrealized gains arising during the period	**177**	1,549	952
Reclassification of net gains on cash flow hedges to net income	**(1,029)**	(1,089)	(545)
Defined benefit plans adjustments:			
Net actuarial losses and prior service credits arising during the period	**(52)**	(512)	(1,116)
Amortization of net actuarial loss, settlements and other to net income	**158**	114	74
Foreign currency translation adjustments:			
Net unrealized losses arising during the period	**(3)**	(137)	(60)
Reclassification of net (gains) losses to net income	**—**	(5)	6
Other comprehensive income (loss), before tax	**(5,447)**	(4,928)	3,205
Income tax (expense) benefit related to other comprehensive income	**1,996**	1,774	(1,300)
Other comprehensive income (loss), net of tax	**(3,451)**	(3,154)	1,905
Less: Other comprehensive income (loss) from noncontrolling interests	**(17)**	67	(227)
Wells Fargo other comprehensive income (loss), net of tax	**(3,434)**	(3,221)	2,132
Wells Fargo comprehensive income	**18,504**	19,673	25,189
Comprehensive income from noncontrolling interests	**90**	449	324
Total comprehensive income	$ **18,594**	20,122	25,513

The accompanying notes are an integral part of these statements.

Wells Fargo & Company and Subsidiaries

Consolidated Balance Sheet

(in millions, except shares)		Dec 31, 2016	Dec 31, 2015
Assets			
Cash and due from banks	$	**20,729**	19,111
Federal funds sold, securities purchased under resale agreements and other short-term investments		**266,038**	270,130
Trading assets (1)		**74,397**	64,815
Investment securities:			
Available-for-sale, at fair value		**308,364**	267,358
Held-to-maturity, at cost (fair value $99,155 and $80,567)		**99,583**	80,197
Mortgages held for sale (includes $22,042 and $13,539 carried at fair value) (2)		**26,309**	19,603
Loans held for sale		**80**	279
Loans (includes $758 and $5,316 carried at fair value) (2)		**967,604**	916,559
Allowance for loan losses		**(11,419)**	(11,545)
Net loans		**956,185**	905,014
Mortgage servicing rights:			
Measured at fair value		**12,959**	12,415
Amortized		**1,406**	1,308
Premises and equipment, net		**8,333**	8,704
Goodwill		**26,693**	25,529
Derivative assets		**14,498**	17,656
Other assets (includes $3,275 and $3,065 carried at fair value) (1) (2)		**114,541**	95,513
Total assets (3)	$	**1,930,115**	1,787,632
Liabilities			
Noninterest-bearing deposits	$	**375,967**	351,579
Interest-bearing deposits		**930,112**	871,733
Total deposits		**1,306,079**	1,223,312
Short-term borrowings		**96,781**	97,528
Derivative liabilities		**14,492**	13,920
Accrued expenses and other liabilities (1)		**57,189**	59,445
Long-term debt		**255,077**	199,536
Total liabilities (4)		**1,729,618**	1,593,741
Equity			
Wells Fargo stockholders' equity:			
Preferred stock		**24,551**	22,214
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		**60,234**	60,714
Retained earnings		**133,075**	120,866
Cumulative other comprehensive income (loss)		**(3,137)**	297
Treasury stock – 465,702,148 shares and 389,682,664 shares		**(22,713)**	(18,867)
Unearned ESOP shares		**(1,565)**	(1,362)
Total Wells Fargo stockholders' equity		**199,581**	192,998
Noncontrolling interests		**916**	893
Total equity		**200,497**	193,891
Total liabilities and equity	$	**1,930,115**	1,787,632

(1) Prior period has been revised to conform to the current period presentation of reporting derivative assets and liabilities separately. See Note 1 (Summary of Significant Accounting Policies) for more information.
(2) Parenthetical amounts represent assets and liabilities for which we have elected the fair value option.
(3) Our consolidated assets at December 31, 2016 and 2015, 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, $168 million and $157 million; Federal funds sold, securities purchased under resale agreements and other short-term investments, $74 million and $0 million; Trading assets, $130 million and $0 million; Investment securities, $0 million and $425 million; Net loans, $12.6 billion and $4.8 billion; Derivative assets, $1 million and $1 million; Other assets, $452 million and $242 million; and Total assets, $13.4 billion and $5.6 billion, respectively.
(4) Our consolidated liabilities at December 31, 2016 and 2015, include the following VIE liabilities for which the VIE creditors do not have recourse to Wells Fargo: Derivative liabilities, $33 million and $47 million; Accrued expenses and other liabilities, $107 million and $10 million; Long-term debt, $3.7 billion and $1.3 billion; and Total liabilities, $3.8 billion and $1.4 billion, respectively.

The accompanying notes are an integral part of these statements.

Consolidated Statement of Changes in Equity

	Preferred stock		Common stock	
(in millions, except shares)	*Shares*	Amount	*Shares*	Amount
Balance December 31, 2013	*10,881,195*	$ 16,267	*5,257,162,705*	$ 9,136
Balance January 1, 2014	*10,881,195*	16,267	*5,257,162,705*	9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			*75,340,898*	
Common stock repurchased (1)			*(183,146,803)*	
Preferred stock issued to ESOP	*1,217,000*	1,217		
Preferred stock released by ESOP				
Preferred stock converted to common shares	*(1,071,377)*	(1,071)	*20,992,398*	
Common stock warrants repurchased/exercised				
Preferred stock issued	*112,000*	2,800		
Common stock dividends				
Preferred stock dividends				
Tax benefit from stock incentive compensation				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	*257,623*	2,946	*(86,813,507)*	—
Balance December 31, 2014	*11,138,818*	$ 19,213	*5,170,349,198*	$ 9,136
Balance January 1, 2015	*11,138,818*	19,213	*5,170,349,198*	9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			*69,876,577*	
Common stock repurchased (1)			*(163,400,892)*	
Preferred stock issued to ESOP	*826,598*	826		
Preferred stock released by ESOP				
Preferred stock converted to common shares	*(825,499)*	(825)	*15,303,927*	
Common stock warrants repurchased/exercised				
Preferred stock issued	*120,000*	3,000		
Common stock dividends				
Preferred stock dividends				
Tax benefit from stock incentive compensation				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	*121,099*	3,001	*(78,220,388)*	—
Balance December 31, 2015	*11,259,917*	$ 22,214	*5,092,128,810*	$ 9,136

(1) For the year ended December 31, 2014, includes $750 million related to a private forward repurchase transaction entered into in fourth quarter 2014 that settled in first quarter 2015 for 14.3 million shares of common stock. For the year ended December 31, 2015, includes $500 million related to a private forward repurchase transaction that settled in first quarter 2016 for 9.2 million shares of common stock. See Note 1 (Summary of Significant Accounting Policies) for additional information.

The accompanying notes are an integral part of these statements.

(continued on following pages)

Wells Fargo stockholders' equity							
Additional paid-in capital	Retained earnings	Cumulative other comprehensive income (loss)	Treasury stock	Unearned ESOP shares	Total Wells Fargo stockholders' equity	Noncontrolling interests	Total equity
60,296	92,361	1,386	(8,104)	(1,200)	170,142	866	171,008
60,296	92,361	1,386	(8,104)	(1,200)	170,142	866	171,008
	23,057				23,057	551	23,608
		2,132			2,132	(227)	1,905
(7)					(7)	(322)	(329)
(273)	—		2,756		2,483		2,483
(250)			(9,164)		(9,414)		(9,414)
108				(1,325)	—		—
(94)				1,165	1,071		1,071
251			820		—		—
(9)					(9)		(9)
(25)					2,775		2,775
76	(7,143)				(7,067)		(7,067)
	(1,235)				(1,235)		(1,235)
453					453		453
858					858		858
(847)			2		(845)		(845)
241	14,679	2,132	(5,586)	(160)	14,252	2	14,254
60,537	107,040	3,518	(13,690)	(1,360)	184,394	868	185,262
60,537	107,040	3,518	(13,690)	(1,360)	184,394	868	185,262
	22,894				22,894	382	23,276
		(3,221)			(3,221)	67	(3,154)
2					2	(424)	(422)
(397)	—		3,041		2,644		2,644
250			(8,947)		(8,697)		(8,697)
74				(900)	—		—
(73)				898	825		825
107			718		—		—
(49)					(49)		(49)
(28)					2,972		2,972
62	(7,642)				(7,580)		(7,580)
	(1,426)				(1,426)		(1,426)
453					453		453
844					844		844
(1,068)			11		(1,057)		(1,057)
177	13,826	(3,221)	(5,177)	(2)	8,604	25	8,629
60,714	120,866	297	(18,867)	(1,362)	192,998	893	193,891

(continued from previous pages)

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Changes in Equity

	Preferred stock		Common stock	
(in millions, except shares)	*Shares*	Amount	*Shares*	Amount
Balance December 31, 2015	*11,259,917*	$ 22,214	*5,092,128,810*	$ 9,136
Cumulative effect from change in consolidation accounting (1)				
Balance January 1, 2016	*11,259,917*	22,214	*5,092,128,810*	9,136
Net income				
Other comprehensive income (loss), net of tax				
Noncontrolling interests				
Common stock issued			*63,441,805*	
Common stock repurchased (2)			*(159,647,152)*	
Preferred stock issued to ESOP	*1,150,000*	1,150		
Preferred stock released by ESOP				
Preferred stock converted to common shares	*(963,205)*	(963)	*20,185,863*	
Common stock warrants repurchased / exercised				
Preferred stock issued	*86,000*	2,150		
Common stock dividends				
Preferred stock dividends				
Tax benefit from stock incentive compensation				
Stock incentive compensation expense				
Net change in deferred compensation and related plans				
Net change	*272,795*	2,337	*(76,019,484)*	—
Balance December 31, 2016	*11,532,712*	$ 24,551	*5,016,109,326*	$ 9,136

(1) Effective January 1, 2016, we adopted changes in consolidation accounting pursuant to Accounting Standards Update 2015-02 (*Amendments to the Consolidation Analysis*). Accordingly, we recorded a $121 million net increase to beginning noncontrolling interests as a cumulative-effect adjustment.
(2) For the year ended December 31, 2016, includes $750 million related to a private forward repurchase transaction that settled in first quarter 2017 for 14.7 million shares of common stock. See Note 1 (Summary of Significant Accounting Policies) for additional information.

The accompanying notes are an integral part of these statements.

Wells Fargo stockholders' equity							
Additional paid-in capital	Retained earnings	Cumulative other comprehensive income (loss)	Treasury stock	Unearned ESOP shares	Total Wells Fargo stockholders' equity	Noncontrolling interests	Total equity
60,714	**120,866**	**297**	**(18,867)**	**(1,362)**	**192,998**	**893**	**193,891**
						121	121
60,714	**120,866**	**297**	**(18,867)**	**(1,362)**	**192,998**	**1,014**	**194,012**
	21,938				21,938	107	22,045
		(3,434)			(3,434)	(17)	(3,451)
2					2	(188)	(186)
(203)	(451)		3,040		2,386		2,386
(250)			(7,866)		(8,116)		(8,116)
99				(1,249)	—		—
(83)				1,046	963		963
(11)			974		—		—
(17)					(17)		(17)
(49)					2,101		2,101
51	(7,712)				(7,661)		(7,661)
	(1,566)				(1,566)		(1,566)
277					277		277
779					779		779
(1,075)			6		(1,069)		(1,069)
(480)	12,209	(3,434)	(3,846)	(203)	6,583	(98)	6,485
60,234	**133,075**	**(3,137)**	**(22,713)**	**(1,565)**	**199,581**	**916**	**200,497**

Wells Fargo & Company and Subsidiaries

Consolidated Statement of Cash Flows

		Year ended December 31,	
(in millions)	**2016**	2015	2014
Cash flows from operating activities:			
Net income before noncontrolling interests	**$ 22,045**	23,276	23,608
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	**3,770**	2,442	1,395
Changes in fair value of MSRs, MHFS and LHFS carried at fair value	**139**	62	1,820
Depreciation, amortization and accretion	**4,970**	3,288	2,515
Other net gains	**(6,086)**	(6,496)	(3,760)
Stock-based compensation	**1,945**	1,958	1,912
Excess tax benefits related to stock incentive compensation	**(283)**	(453)	(453)
Originations and purchases of MHFS and LHFS (1)	**(205,314)**	(178,294)	(144,966)
Proceeds from sales of and paydowns on mortgages originated for sale and LHFS (1)	**127,488**	133,201	117,304
Net change in:			
Trading assets (1)	**62,550**	42,754	14,242
Deferred income taxes	**1,793**	(2,265)	2,354
Derivative assets and liabilities (1)	**2,089**	(354)	1,480
Other assets (1)	**(14,232)**	(2,165)	(6,700)
Other accrued expenses and liabilities (1)	**(705)**	(2,182)	6,778
Net cash provided by operating activities	**169**	14,772	17,529
Cash flows from investing activities:			
Net change in:			
Federal funds sold, securities purchased under resale agreements and other short-term investments	**3,991**	(11,866)	(41,778)
Available-for-sale securities:			
Sales proceeds	**31,584**	25,431	6,089
Prepayments and maturities	**41,105**	33,912	37,257
Purchases	**(120,980)**	(79,778)	(44,807)
Held-to-maturity securities:			
Paydowns and maturities	**7,957**	5,290	5,168
Purchases	**(23,593)**	(25,424)	(47,012)
Nonmarketable equity investments:			
Sales proceeds	**1,975**	3,496	3,161
Purchases	**(4,316)**	(2,352)	(3,087)
Loans:			
Loans originated by banking subsidiaries, net of principal collected	**(38,977)**	(57,016)	(65,162)
Proceeds from sales (including participations) of loans held for investment	**10,061**	11,672	21,564
Purchases (including participations) of loans	**(6,221)**	(13,759)	(6,424)
Principal collected on nonbank entities' loans	**11,609**	10,023	13,589
Loans originated by nonbank entities	**(12,533)**	(12,441)	(13,570)
Net cash paid for acquisitions	**(30,584)**	(3)	(174)
Proceeds from sales of foreclosed assets and short sales	**7,311**	7,803	7,697
Other, net (1)	**(508)**	(2,223)	(891)
Net cash used by investing activities	**(122,119)**	(107,235)	(128,380)
Cash flows from financing activities:			
Net change in:			
Deposits	**82,767**	54,867	89,133
Short-term borrowings	**(1,198)**	34,010	8,035
Long-term debt:			
Proceeds from issuance	**90,111**	43,030	42,154
Repayment	**(34,462)**	(27,333)	(15,829)
Preferred stock:			
Proceeds from issuance	**2,101**	2,972	2,775
Cash dividends paid	**(1,566)**	(1,426)	(1,235)
Common stock:			
Proceeds from issuance	**1,415**	1,726	1,840
Repurchased	**(8,116)**	(8,697)	(9,414)
Cash dividends paid	**(7,472)**	(7,400)	(6,908)
Excess tax benefits related to stock incentive compensation	**283**	453	453
Net change in noncontrolling interests	**(188)**	(232)	(552)
Other, net	**(107)**	33	51
Net cash provided by financing activities	**123,568**	92,003	110,503
Net change in cash and due from banks	**1,618**	(460)	(348)
Cash and due from banks at beginning of year	**19,111**	19,571	19,919
Cash and due from banks at end of year	**$ 20,729**	19,111	19,571
Supplemental cash flow disclosures:			
Cash paid for interest	**$ 5,573**	3,816	3,906
Cash paid for income taxes	**8,446**	13,688	8,808

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

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

Notes to Financial Statements

See the Glossary of Acronyms at the end of this Report for terms used throughout the Financial Statements and related Notes.

Note 1: Summary of Significant Accounting Policies

Wells Fargo & Company is a diversified financial services company. We provide banking, insurance, trust and investments, mortgage banking, investment banking, retail banking, brokerage, and consumer and commercial finance through 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. 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 and purchased credit-impaired (PCI) loans (Note 6 (Loans and Allowance for Credit Losses)), valuations of residential mortgage servicing rights (MSRs) (Note 8 (Securitizations and Variable Interest Entities) and Note 9 (Mortgage Banking Activities)) and financial instruments (Note 17 (Fair Values of Assets and Liabilities)) and income taxes (Note 21 (Income Taxes)). Actual results could differ from those estimates.

Accounting Standards Adopted in 2016

In 2016, we adopted the following new accounting guidance:

- Accounting Standards Update (ASU or Update) 2015-16 – *Business Combinations* (*Topic 805*): *Simplifying the Accounting for Measurement-Period Adjustments;*
- ASU 2015-07 – *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities that Calculate Net Asset Value per Share (or Its Equivalent);*
- ASU 2015-03 – *Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs;*
- ASU 2015-02 – *Consolidation (Topic 810): Amendments to the Consolidation Analysis;*
- ASU 2015-01 – *Income Statement – Extraordinary and Unusual Items (Subtopic 225-20): Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items;*
- ASU 2014-16 – *Derivatives and Hedging (Topic 815): Determining Whether the Host Contract in a Hybrid Financial Instrument Issued in the Form of a Share is More Akin to Debt or to Equity;*
- ASU 2014-13 – *Consolidation (Topic 810): Measuring the Financial Assets and the Financial Liabilities of a Consolidated Collateralized Financing Entity;* and
- ASU 2014-12 – *Compensation – Stock Compensation (Topic 718): Accounting for Share-Based Payments When the Terms of an Award Provide That a Performance Target Could Be Achieved after the Requisite Service Period.*

ASU 2015-16 eliminates the requirement for companies to retrospectively adjust initial amounts recognized in business combinations when the accounting is incomplete at the acquisition date. Under the new guidance, companies should record adjustments in the same reporting period in which the amounts are determined. We adopted this accounting change in first quarter 2016 with prospective application. The Update did not have a material impact on our consolidated financial statements.

ASU 2015-07 eliminates the disclosure requirement to categorize investments within the fair value hierarchy that are measured at fair value using net asset value as a practical expedient. We adopted this change in first quarter 2016 with retrospective application. The Update did not affect our consolidated financial statements as it impacts only the fair value disclosure requirements for certain investments. For additional information, see Note 17 (Fair Values of Assets and Liabilities) and Note 20 (Employee Benefits and Other Expenses).

ASU 2015-03 changes the balance sheet presentation for debt issuance costs. Under the new guidance, debt issuance costs should be reported as a deduction from debt liabilities rather than as a deferred charge classified as an asset. We adopted this change in first quarter 2016, which resulted in a $180 million reclassification from Other assets to Long-term debt on January 1, 2016. Because the impact on prior periods was not material, we applied the guidance prospectively.

ASU 2015-02 requires companies to reevaluate all legal entities under new consolidation guidance. The new guidance amends the criteria companies use to evaluate whether they should consolidate certain variable interest entities that have fee arrangements and the criteria used to determine whether partnerships and similar entities are variable interest entities. The new guidance also amends the consolidation analysis for certain investment funds and excludes certain money market funds. We adopted the accounting changes on January 1, 2016, which resulted in a net increase in assets and a corresponding cumulative-effect adjustment to noncontrolling interests of $121 million. There was no impact to consolidated retained earnings. For additional information, see Note 8 (Securitizations and Variable Interest Entities).

ASU 2015-01 removes the concept of extraordinary items from GAAP and eliminates the requirement for extraordinary items to be separately presented in the statement of income. We adopted this change in first quarter 2016 with prospective application. This Update did not have a material impact on our consolidated financial statements.

ASU 2014-16 clarifies that the nature of host contracts in hybrid financial instruments that are issued in share form should be determined based on the entire instrument, including the embedded derivative. We adopted this new requirement in first quarter 2016. This Update did not have a material impact on our consolidated financial statements.

ASU 2014-13 provides a measurement alternative to companies that consolidate collateralized financing entities (CFEs), such as collateralized debt obligation and collateralized loan obligation structures. Under the new guidance, companies can measure both the financial assets and financial liabilities of a CFE using the more observable fair value of the financial assets or of the financial liabilities. We adopted this accounting change in first quarter 2016. The Update did not have a material impact on our consolidated financial statements.

ASU 2014-12 provides accounting guidance for employee share-based payment awards with specific performance targets. The Update clarifies that performance targets should be treated as performance conditions if the targets affect vesting and could be achieved after the requisite service period. We adopted this change in first quarter 2016 with prospective application. The Update did not have a material effect on our consolidated financial statements, as our historical practice complies with the new requirements.

Accounting Standards with Retrospective Application

The following accounting pronouncements have been issued by the FASB but are not yet effective:

- ASU 2016-09 – *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*

ASU 2016-09 simplifies the accounting for share-based payment awards issued to employees. We have income tax effects based on changes in our stock price from the grant date to the vesting date of the employee stock compensation. The Update will require these income tax effects to be recognized in the statement of income within income tax expense instead of within additional paid-in capital. In addition, the Update requires changes to the Statement of Cash Flows. We will adopt the guidance in first quarter 2017. If we had adopted the guidance for the year ended December 31, 2016, we would have had a reduction to our income tax expense of $277 million. This amount is included in additional paid-in capital in the Statement of Changes in Equity for the year ended December 31, 2016. We will begin recording these income tax effects on a prospective basis in 2017. The presentation and classification changes to our Statement of Cash Flows will be implemented retrospectively.

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

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

Consolidation

Our consolidated financial statements include the accounts of the Parent and our subsidiaries in which we have a controlling interest.

We are also a variable interest holder in certain entities in which equity investors do not have the characteristics of a controlling financial interest or where the entity does not have enough equity at risk to finance its activities without additional subordinated financial support from other parties (referred to as variable interest entities (VIEs)). Our variable interest arises from contractual, ownership or other monetary interests in the entity, which change with fluctuations in the fair value of the entity's net assets. We consolidate a VIE if we are the primary beneficiary. We are the primary beneficiary if we have a controlling financial interest, which includes both the power to direct the activities that most significantly impact the VIE and a variable interest that potentially could be significant to the VIE. To determine whether or not a variable interest we hold could potentially be significant to the VIE, we consider both qualitative and quantitative factors regarding the nature, size and form of our involvement with the VIE. We assess whether or not we are the primary beneficiary of a VIE on an ongoing basis.

Significant intercompany accounts and transactions are eliminated in consolidation. When we have significant influence over operating and financing decisions for a company but do not own a majority of the voting equity interests, we account for the investment using the equity method of accounting, which requires us to recognize our proportionate share of the company's earnings. If we do not have significant influence, we recognize the equity investment at cost except for (1) marketable equity securities, which we recognize at fair value with changes in fair value included in other comprehensive income (OCI), and (2) nonmarketable equity investments for which we have elected the fair value option. Investments accounted for under the equity or cost method are included in other assets.

Cash and Due From Banks

Cash and cash equivalents include cash on hand, cash items in transit, and amounts due from the Federal Reserve Bank and other depository institutions.

Trading Assets

Trading assets are predominantly securities, including corporate debt, U.S. government agency obligations and other securities and certain loans held for market-making purposes to support the buying and selling demands of our customers. Interest-only strips and other retained interests in securitizations that can be contractually prepaid or otherwise settled in a way that the holder would not recover substantially all of its recorded investment are classified as trading assets. Trading assets are carried at fair value, with changes in fair value recorded in net gains from trading activities. For securities and loans in trading assets, interest and dividend income are recorded in interest income.

Investments

Our investments include various debt and marketable equity securities and nonmarketable equity investments. We classify debt and marketable equity securities as available-for-sale or held-to-maturity securities based on our intent to hold to maturity. Our nonmarketable equity investments are reported in other assets.

AVAILABLE-FOR-SALE SECURITIES Debt securities that we might not hold until maturity and marketable equity securities are classified as available-for-sale securities and reported at fair value. Unrealized gains and losses, after applicable income taxes, are reported in cumulative OCI.

We conduct other-than-temporary impairment (OTTI) analysis on a quarterly basis or more often if a potential loss-triggering event occurs. The initial indicator of OTTI for both debt and equity securities is a decline in fair value below the amount recorded for an investment and the severity and duration of the decline.

For a debt security for which there has been a decline in the fair value below amortized cost basis, we recognize OTTI if we (1) have the intent to sell the security, (2) it is more likely than not that we will be required to sell the security before recovery of its amortized cost basis, or (3) we do not expect to recover the entire amortized cost basis of the security.

Estimating recovery of the amortized cost basis of a debt security is based upon an assessment of the cash flows expected to be collected. If the present value of cash flows expected to be collected, discounted at the security's effective yield, is less than amortized cost, OTTI is considered to have occurred. In performing an assessment of the cash flows expected to be collected, we consider all relevant information including:

- the length of time and the extent to which the fair value has been less than the amortized cost basis;
- the historical and implied volatility of the fair value of the security;
- the cause of the price decline, such as the general level of interest rates or adverse conditions specifically related to the security, an industry or a geographic area;
- the issuer's financial condition, near-term prospects and ability to service the debt;
- the payment structure of the debt security and the likelihood of the issuer being able to make payments that increase in the future;
- for asset-backed securities, the credit performance of the underlying collateral, including delinquency rates, level of non-performing assets, cumulative losses to date, collateral value and the remaining credit enhancement compared with expected credit losses;
- any change in rating agencies' credit ratings at evaluation date from acquisition date and any likely imminent action;
- independent analyst reports and forecasts, sector credit ratings and other independent market data; and
- recoveries or additional declines in fair value subsequent to the balance sheet date.

If we intend to sell the security, or if it is more likely than not we will be required to sell the security before recovery of amortized cost basis, an OTTI write-down is recognized in earnings equal to the entire difference between the amortized cost basis and fair value of the security. For debt securities that are considered other-than-temporarily impaired that we do not intend to sell or it is more likely than not that we will not be required to sell before recovery, the OTTI write-down is separated into an amount representing the credit loss, which is recognized in earnings, and the amount related to all other factors, which is recognized in OCI. The measurement of the credit loss component is equal to the difference between the debt security's amortized cost basis and the present value of its expected future cash flows discounted at the security's effective yield. The remaining difference between the security's fair value and the present value of expected future cash flows is due to factors that are not credit-related and, therefore, is recognized in OCI. We believe that we will fully collect the carrying value of securities on which we have recorded a non-credit-related impairment in OCI.

We hold investments in perpetual preferred securities (PPS) that are structured in equity form but have many of the characteristics of debt instruments, including periodic cash flows in the form of dividends, call features, ratings that are similar to debt securities and pricing like long-term callable bonds.

Because of the hybrid nature of these securities, we evaluate PPS for OTTI using a model similar to the model we use for debt securities as described above. Among the factors we consider in our evaluation of PPS are whether there is any evidence of deterioration in the credit of the issuer as indicated by a decline in cash flows or a rating agency downgrade to below investment grade and the estimated recovery period. OTTI write-downs of PPS are recognized in earnings equal to the difference between the cost basis and fair value of the security. Based upon the factors considered in our OTTI evaluation, we believe our investments in PPS currently rated investment grade will be fully realized and, accordingly, have not recognized OTTI on such securities.

For marketable equity securities other than PPS, OTTI evaluations focus on whether evidence exists that supports recovery of the unrealized loss within a timeframe consistent with temporary impairment. This evaluation considers the severity of and length of time fair value is below cost, our intent and ability to hold the security until forecasted recovery of the fair value of the security, and the investee's financial condition, capital strength, and near-term prospects.

We recognize realized gains and losses on the sale of investment securities in noninterest income using the specific identification method.

Unamortized premiums and discounts are recognized in interest income over the contractual life of the security using the interest method. As principal repayments are received on securities (i.e., primarily mortgage-backed securities (MBS)) a proportionate amount of the related premium or discount is recognized in income so that the effective interest rate on the remaining portion of the security continues unchanged.

HELD-TO-MATURITY SECURITIES Debt securities for which the Company has the positive intent and ability to hold to maturity are reported at historical cost adjusted for amortization of premiums and accretion of discounts. We recognize OTTI when there is a decline in fair value and we do not expect to recover the entire amortized cost basis of the debt security. The amortized cost is written-down to fair value with the credit loss component recorded to earnings and the remaining component recognized in OCI. The OTTI assessment related to whether we expect recovery of the amortized cost basis and determination of any credit loss component recognized in earnings for held-to-maturity securities is the same as described for available-for-sale securities. Security transfers to the held-to-maturity classification are recorded at fair value. Unrealized gains or losses from the transfer of available-for-sale securities continue to be reported in cumulative OCI and are amortized into earnings over the remaining life of the security using the effective interest method.

NONMARKETABLE EQUITY INVESTMENTS Nonmarketable equity investments include low income housing tax credit investments, equity securities that are not publicly traded and securities acquired for various purposes, such as to meet regulatory requirements (for example, Federal Reserve Bank and Federal Home Loan Bank (FHLB) stock). We have elected the fair value option for some of these investments with the remainder of these investments accounted for under the cost or equity method, which we review at least quarterly for possible OTTI. Our review typically includes an analysis of the facts and circumstances of each investment, the expectations for the investment's cash flows and capital needs, the viability of its business model and our exit strategy. We reduce the asset value when we consider declines in value to be other than temporary.

We recognize the estimated loss as a loss from equity investments in noninterest income.

Securities Purchased and Sold Agreements

Securities purchased under resale agreements and securities sold under repurchase agreements are accounted for as collateralized financing transactions and are recorded at the acquisition or sale price plus accrued interest. We monitor the fair value of securities purchased and sold and obtain collateral from or return it to counterparties when appropriate. These financing transactions do not create material credit risk given the collateral provided and the related monitoring process.

Mortgages and Loans Held for Sale

Mortgages held for sale (MHFS) include commercial and residential mortgages originated for sale and securitization in the secondary market, which is our principal market, or for sale as whole loans. We have elected the fair value option for substantially all residential MHFS (see Note 17 (Fair Values of Assets and Liabilities)). The remaining residential MHFS are held at the lower of cost or fair value (LOCOM) and are valued on an aggregate portfolio basis. Commercial MHFS are held at LOCOM and are valued on an individual loan basis.

Loans held for sale (LHFS) are carried at LOCOM. Generally, consumer loans are valued on an aggregate portfolio basis, and commercial loans are valued on an individual loan basis.

Gains and losses on MHFS are recorded in mortgage banking noninterest income. Gains and losses on LHFS are recorded in other noninterest income. Direct loan origination costs and fees for MHFS and LHFS under the fair value option are recognized in income at origination. For MHFS and LHFS recorded at LOCOM, loan costs and fees are deferred at origination and are recognized in income at time of sale. Interest income on MHFS and LHFS is calculated based upon the note rate of the loan and is recorded in interest income.

Our lines of business are authorized to originate held-for-investment loans that meet or exceed established loan product profitability criteria, including minimum positive net interest margin spreads in excess of funding costs. When a determination is made at the time of commitment to originate loans as held for investment, it is our intent to hold these loans to maturity or for the "foreseeable future," subject to periodic review under our management evaluation processes, including corporate asset/liability management. In determining the "foreseeable future" for loans, management considers (1) the current economic environment and market conditions, (2) our business strategy and current business plans, (3) the nature and type of the loan receivable, including its expected life, and (4) our current financial condition and liquidity demands. If subsequent changes, including changes in interest rates, significantly impact the ongoing profitability of certain loan products, we may subsequently change our intent to hold these loans, and we would take actions to sell such loans. Upon such management determination, we immediately transfer these loans to the MHFS or LHFS portfolio at LOCOM.

Loans

Loans are reported at their outstanding principal balances net of any unearned income, cumulative charge-offs, unamortized deferred fees and costs on originated loans and unamortized premiums or discounts on purchased loans. PCI loans are reported net of any remaining purchase accounting adjustments. See the "Purchased Credit-Impaired Loans" section in this Note for our accounting policy for PCI loans.

Unearned income, deferred fees and costs, and discounts and premiums are amortized to interest income over the contractual life of the loan using the interest method. Loan commitment fees are generally deferred and amortized into noninterest income on a straight-line basis over the commitment period.

We have certain private label and co-brand credit card loans through a program agreement that involves our active participation in the operating activity of the program with a third party. We share in the economic results of the loans subject to this agreement. We consider the program to be a collaborative arrangement and therefore report our share of revenue and losses on a net basis in interest income for loans, other noninterest income and provision for credit losses as applicable. Our net share of revenue from this activity represented less than 1% of our total revenues for 2016.

Loans also include direct financing leases that are recorded at the aggregate of minimum lease payments receivable plus the estimated residual value of the leased property, less unearned income. Leveraged leases, which are a form of direct financing leases, are recorded net of related non-recourse debt. Leasing income is recognized as a constant percentage of outstanding lease financing balances over the lease terms in interest income.

NONACCRUAL AND PAST DUE LOANS We generally place loans on nonaccrual status when:

- the full and timely collection of interest or principal becomes uncertain (generally based on an assessment of the borrower's financial condition and the adequacy of collateral, if any);
- they are 90 days (120 days with respect to real estate 1-4 family first and junior lien mortgages) past due for interest or principal, unless both well-secured and in the process of collection;
- part of the principal balance has been charged off, except for credit card loans, which remain on accrual status until fully charged off;
- for junior lien mortgages, we have evidence that the related first lien mortgage may be 120 days past due or in the process of foreclosure regardless of the junior lien delinquency status; or
- consumer real estate and automobile loans are discharged in bankruptcy, regardless of their delinquency status.

PCI loans are written down at acquisition to fair value using an estimate of cash flows deemed to be collectible and an accretable yield is established. Accordingly, such loans are not classified as nonaccrual because they continue to earn interest from accretable yield, independent of performance in accordance of their contractual terms, and we expect to fully collect the new carrying values of such loans (that is, the new cost basis arising out of purchase accounting).

When we place a loan on nonaccrual status, we reverse the accrued unpaid interest receivable against interest income and suspend amortization of any net deferred fees. If the ultimate collectability of the recorded loan balance is in doubt on a nonaccrual loan, the cost recovery method is used and cash collected is applied to first reduce the carrying value of the loan. Otherwise, interest income may be recognized to the extent cash is received. Generally, we return a loan to accrual status when all delinquent interest and principal become current under the terms of the loan agreement and collectability of remaining principal and interest is no longer doubtful.

We typically re-underwrite modified loans at the time of a restructuring to determine if there is sufficient evidence of sustained repayment capacity based on the borrower's financial strength, including documented income, debt to income ratios and other factors. If the borrower has demonstrated performance under the previous terms and the underwriting process shows the capacity to continue to perform under the restructured terms, the loan will generally remain in accruing status. When a loan classified as a troubled debt restructuring (TDR) performs in accordance with its modified terms, the loan either continues to accrue interest (for performing loans) or will return to accrual status after the borrower demonstrates a sustained period of performance (generally six consecutive months of payments, or equivalent, inclusive of consecutive payments made prior to the modification). Loans will be placed on nonaccrual status and a corresponding charge-off is recorded if we believe it is probable that principal and interest contractually due under the modified terms of the agreement will not be collectible.

Our loans are considered past due when contractually required principal or interest payments have not been made on the due dates.

LOAN CHARGE-OFF POLICIES For commercial loans, we generally fully charge off or charge down to net realizable value (fair value of collateral, less estimated costs to sell) for loans secured by collateral when:

- management judges the loan to be uncollectible;
- repayment is deemed to be protracted beyond reasonable time frames;
- the loan has been classified as a loss by either our internal loan review process or our banking regulatory agencies;
- the customer has filed bankruptcy and the loss becomes evident owing to a lack of assets; or
- the loan is 180 days past due unless both well-secured and in the process of collection.

For consumer loans, we fully charge off or charge down to net realizable value when deemed uncollectible due to bankruptcy discharge or other factors, or no later than reaching a defined number of days past due, as follows:

- 1-4 family first and junior lien mortgages – We generally charge down to net realizable value when the loan is 180 days past due.
- Automobile loans – We generally fully charge off when the loan is 120 days past due.
- Credit card loans – We generally fully charge off when the loan is 180 days past due.
- Unsecured loans (closed end) – We generally fully charge off when the loan is 120 days past due.
- Unsecured loans (open end) – We generally fully charge off when the loan is 180 days past due.
- Other secured loans – We generally fully or partially charge down to net realizable value when the loan is 120 days past due.

IMPAIRED LOANS We consider a loan to be impaired when, based on current information and events, we determine that we will not be able to collect all amounts due according to the loan contract, including scheduled interest payments. This evaluation is generally based on delinquency information, an assessment of the borrower's financial condition and the adequacy of collateral, if any. 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.

When we identify a loan as impaired, we generally measure the impairment, if any, based on the difference between the recorded investment in the loan (net of previous charge-offs, deferred loan fees or costs and unamortized premium or discount) and the present value of expected future cash flows, discounted at the loan's effective interest rate. When the value of an impaired loan is calculated by discounting expected cash flows, interest income is recognized using the loan's effective interest rate over the remaining life of the loan. When collateral is the sole source of repayment for the impaired loan, rather than the borrower's income or other sources of repayment, we charge down to net realizable value.

TROUBLED DEBT RESTRUCTURINGS In situations where, 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 the borrower that we would not otherwise consider, the related loan is classified as a TDR. These modified terms may include rate reductions, principal forgiveness, term extensions, payment forbearance and other actions intended to minimize our economic loss and to avoid foreclosure or repossession of the collateral, if applicable. For modifications where we forgive principal, the entire amount of such principal forgiveness is immediately charged off. Loans classified as TDRs, including loans in trial payment periods (trial modifications), are considered impaired loans. Other than resolutions such as foreclosures, sales and transfers to held-for-sale, we may remove loans held for investment from TDR classification, but only if they have been refinanced or restructured at market terms and qualify as a new loan.

PURCHASED CREDIT-IMPAIRED 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. PCI loans are recorded at fair value at the date of acquisition, and the historical allowance for credit losses related to these loans is not carried over. Some loans that otherwise meet the definition as credit-impaired are specifically excluded from the PCI loan portfolios, such as revolving loans where the borrower still has revolving privileges.

Evidence of credit quality deterioration as of the purchase date may include statistics such as past due and nonaccrual status, commercial risk ratings, recent borrower credit scores and recent loan-to-value percentages. Acquired loans that meet our definition for nonaccrual status are generally considered to be credit-impaired.

PCI loans may be aggregated into pools based on common risk characteristics. Each pool is accounted for as a single asset with a single composite interest rate and an aggregate expectation of cash flows. Generally, commercial PCI loans are accounted for as individual loans and consumer PCI loans are included in pools.

Accounting for PCI loans involves estimating fair value at acquisition using the principal and interest cash flows expected to be collected discounted at the prevailing market rate of interest. The excess of cash flows expected to be collected over the carrying value (estimated fair value at acquisition date) is referred to as the accretable yield and is recognized in interest income using an effective yield method over the remaining life of the loan, or pool of loans, in situations where there is a reasonable expectation about the timing and amount of cash flows to be collected. The difference between contractually required payments and the cash flows expected to be collected at acquisition, considering the impact of prepayments, is referred to as the nonaccretable difference.

Subsequent to acquisition, we evaluate our estimates of cash flows expected to be collected on a quarterly basis. If we have probable decreases in cash flows expected to be collected (other than due to decreases in interest rate indices and changes in prepayment assumptions), we charge the provision for credit losses, resulting in an increase to the allowance for loan losses. If we have probable and significant increases in cash flows expected to be collected, we first reverse any previously established allowance for loan losses and then increase interest income as a prospective yield adjustment over the remaining life of the loan, or pool of loans. Estimates of cash flows are impacted by changes in interest rate indices for variable rate loans and prepayment assumptions, both of which are treated as prospective yield adjustments included in interest income.

Resolutions of loans may include sales of loans to third parties, receipt of payments in settlement with the borrower, or foreclosure of the collateral. For individual PCI loans, gains or losses on sales to third parties are included in other noninterest income, and gains or losses as a result of a settlement with the borrower are included in interest income. Our policy is to remove an individual loan from a pool based on comparing the amount received from its resolution with its contractual amount. Any difference between these amounts is absorbed by the nonaccretable difference for the entire pool. This removal method assumes that the amount received from resolution approximates pool performance expectations. The remaining accretable yield balance is unaffected and any material change in remaining effective yield caused by this removal method is addressed by our quarterly cash flow evaluation process for each pool. For loans that are resolved by payment in full, there is no release of the nonaccretable difference for the pool because there is no difference between the amount received at resolution and the contractual amount of the loan. Modified PCI loans are not removed from a pool even if those loans would otherwise be deemed TDRs. Modified PCI loans that are accounted for individually are considered TDRs and removed from PCI accounting if there has been a concession granted in excess of the original nonaccretable difference. We include these TDRs in our impaired loans.

FORECLOSED ASSETS Foreclosed assets obtained through our lending activities primarily include real estate. Generally, loans have been written down to their net realizable value prior to foreclosure. Any further reduction to their net realizable value is recorded with a charge to the allowance for credit losses at foreclosure. We allow up to 90 days after foreclosure to finalize determination of net realizable value. Thereafter, changes in net realizable value are recorded to noninterest expense. The net realizable value of these assets is reviewed and updated periodically depending on the type of property. Certain government-guaranteed mortgage loans upon foreclosure are included in accounts receivable, not foreclosed assets. These receivables were loans predominantly insured by the FHA or guaranteed by the VA and are measured based on the balance expected to be recovered from the FHA or VA.

ALLOWANCE FOR CREDIT LOSSES (ACL) The allowance for credit losses is management's estimate of credit losses inherent in the loan portfolio, including unfunded credit commitments, at the balance sheet date. We have an established process to determine the appropriateness of the allowance for credit losses that assesses the losses inherent in our portfolio and related unfunded credit commitments. We develop and document our allowance methodology at the portfolio segment level – commercial loan portfolio and consumer loan portfolio. While we attribute portions of the allowance to our respective commercial and consumer portfolio segments, the entire allowance is available to absorb credit losses inherent in the total loan portfolio and unfunded credit commitments.

Our process involves procedures to appropriately consider the unique risk characteristics of our commercial and consumer loan portfolio segments. For each portfolio segment, losses are estimated collectively for groups of loans with similar characteristics, individually or pooled for impaired loans or, for PCI loans, based on the changes in cash flows expected to be collected.

Our allowance levels are influenced by loan volumes, loan grade migration or delinquency status, historic loss experience and other conditions influencing loss expectations, such as economic conditions.

COMMERCIAL PORTFOLIO SEGMENT ACL METHODOLOGY
Generally, commercial loans are assessed for estimated losses by grading each loan using various risk factors as identified through periodic reviews. 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 default and losses after default within each credit risk rating. These estimates are adjusted as appropriate based on additional analysis of long-term average loss experience compared to previously forecasted losses, external loss data or other risks identified from current economic conditions and credit quality trends. The estimated probability of default and severity at the time of default are applied to loan equivalent exposures to estimate losses for unfunded credit commitments.

The allowance also includes an amount for the estimated impairment on nonaccrual commercial loans and commercial loans modified in a TDR, whether on accrual or nonaccrual status.

CONSUMER PORTFOLIO SEGMENT ACL METHODOLOGY
For consumer loans that are not identified as a TDR, we generally determine the allowance on a collective basis utilizing forecasted losses to represent our best estimate of inherent loss. We pool loans, generally by product types with similar risk characteristics, such as residential real estate mortgages and credit cards. As appropriate and to achieve greater accuracy, we may further stratify selected portfolios by sub-product, origination channel, vintage, loss type, geographic location and other predictive characteristics. Models designed for each pool are utilized to develop the loss estimates. We use assumptions for these pools in our forecast models, such as historic delinquency and default, loss severity, home price trends, unemployment trends, and other key economic variables that may influence the frequency and severity of losses in the pool.

In determining the appropriate allowance attributable to our residential mortgage portfolio, we take into consideration portfolios determined to be at elevated risk, such as junior lien mortgages behind delinquent first lien mortgages and junior lien lines of credit subject to near term significant payment increases. We incorporate the default rates and high severity of loss for these higher risk portfolios, including the impact of our established loan modification programs. Accordingly, the loss content associated with the effects of loan modifications and higher risk portfolios has been captured in our ACL methodology.

We separately estimate impairment for consumer loans that have been modified in a TDR (including trial modifications), whether on accrual or nonaccrual status.

OTHER ACL MATTERS The allowance for credit losses for both portfolio segments includes an amount for imprecision or uncertainty that may change from period to period. This amount represents management's judgment of risks inherent in the processes and assumptions used in establishing the allowance. This imprecision considers economic environmental factors, modeling assumptions and performance, process risk, and other subjective factors, including industry trends and emerging risk assessments.

Securitizations and Beneficial Interests

In certain asset securitization transactions that meet the applicable criteria to be accounted for as a sale, assets are sold to an entity referred to as a Special Purpose Entity (SPE), which then issues beneficial interests in the form of senior and subordinated interests collateralized by the assets. In some cases, we may retain beneficial interests issued by the entity. Additionally, from time to time, we may also re-securitize certain assets in a new securitization transaction.

The assets and liabilities transferred to an SPE are excluded from our consolidated balance sheet if the transfer qualifies as a sale and we are not required to consolidate the SPE.

For transfers of financial assets recorded as sales, we recognize and initially measure at fair value all assets obtained (including beneficial interests) and liabilities incurred. We record a gain or loss in noninterest income for the difference between the carrying amount and the fair value of the assets sold. Fair values are based on quoted market prices, quoted market prices for similar assets, or if market prices are not available, then the fair value is estimated using discounted cash flow analyses with assumptions for credit losses, prepayments and discount rates that are corroborated by and verified against market observable data, where possible. Retained interests and liabilities incurred from securitizations with off-balance sheet entities, including SPEs and VIEs, where we are not the primary beneficiary, are classified as investment securities, trading account assets, loans, MSRs, derivative assets and liabilities, other assets, other liabilities (including liabilities for mortgage repurchase losses), or long-term debt and are accounted for as described herein.

Mortgage Servicing Rights (MSRs)

We recognize the rights to service mortgage loans for others, or MSRs, as assets whether we purchase the MSRs or the MSRs result from a sale or securitization of loans we originate (asset transfers). We initially record all of our MSRs at fair value. Subsequently, residential loan MSRs are carried at fair value. All of our MSRs related to our commercial mortgage loans are subsequently measured at LOCOM. The valuation and sensitivity of MSRs is discussed further in Note 8 (Securitizations and Variable Interest Entities), Note 9 (Mortgage Banking Activities) and Note 17 (Fair Values of Assets and Liabilities).

For MSRs carried at fair value, changes in fair value are reported in mortgage banking noninterest income in the period in which the change occurs. MSRs subsequently measured at LOCOM are amortized in proportion to, and over the period of, estimated net servicing income. The amortization of MSRs is reported in mortgage banking noninterest income, analyzed monthly and adjusted to reflect changes in prepayment speeds, as well as other factors.

MSRs accounted for at LOCOM are periodically evaluated for impairment based on the fair value of those assets. For purposes of impairment evaluation and measurement, we stratify MSRs based on the predominant risk characteristics of the underlying loans, including investor and product type. If, by individual stratum, the carrying amount of these MSRs exceeds fair value, a valuation allowance is established. The valuation allowance is adjusted as the fair value changes.

Premises and Equipment

Premises and equipment are carried at cost less accumulated depreciation and amortization. Capital leases, where we are the lessee, are included in premises and equipment at the capitalized amount less accumulated amortization.

We primarily use the straight-line method of depreciation and amortization. Estimated useful lives range up to 40 years for buildings, up to 10 years for furniture and equipment, and the shorter of the estimated useful life (up to 8 years) or the lease term for leasehold improvements. We amortize capitalized leased assets on a straight-line basis over the lives of the respective leases.

Goodwill and Identifiable Intangible Assets

Goodwill is recorded in business combinations under the purchase method of accounting when the purchase price is higher than the fair value of net assets, including identifiable intangible assets.

We assess goodwill for impairment at a reporting unit level on an annual basis or more frequently in certain circumstances. We have determined that our reporting units are one level below the operating segments and distinguish these reporting units based on how the segments and reporting units are managed, taking into consideration the economic characteristics, nature of the products, and customers of the segments and reporting units. At the time we acquire a business, we allocate goodwill to applicable reporting units based on their relative fair value, and if we have a significant business reorganization, we may reallocate the goodwill. If we sell a business, a portion of goodwill is included with the carrying amount of the divested business.

We have the option of performing a qualitative assessment of goodwill. We may also elect to bypass the qualitative test and proceed directly to a quantitative test. If we perform a qualitative assessment of goodwill to test for impairment and conclude it is more likely than not that a reporting unit's fair value is greater than its carrying amount, quantitative tests are not required. However, if we determine it is more likely than not that a reporting unit's fair value is less than its carrying amount, then we complete a quantitative assessment to determine if there is goodwill impairment. We apply various quantitative valuation methodologies, including discounted cash flow and earnings multiple approaches, to determine the estimated fair value, which is compared to the carrying value of each reporting unit. If the fair value is less than the carrying amount, an additional test is required to measure the amount of impairment. We recognize impairment losses as a charge to other noninterest expense (unless related to discontinued operations) and an adjustment to the carrying value of the goodwill asset. Subsequent reversals of goodwill impairment are prohibited.

We amortize core deposit and other customer relationship intangibles on an accelerated basis over useful lives not exceeding 10 years. We review such intangibles for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. Impairment is indicated if the sum of undiscounted estimated future net cash flows is less than the carrying value of the asset. Impairment is permanently recognized by writing down the asset to the extent that the carrying value exceeds the estimated fair value.

Derivatives and Hedging Activities

Commencing December 31, 2016, we reported derivative assets and derivative liabilities separately on the balance sheet, consistent with the presentation in our derivatives footnote. We formerly reported derivative asset amounts in “Trading assets” and “Other assets” according to the purpose of the underlying derivative contracts and reported derivative liability amounts in “Accrued expenses and other liabilities.” Prior periods have been revised to conform with the December 31, 2016, presentation.

We recognize all derivatives on the balance sheet at fair value. On the date we enter into a derivative contract, we designate the derivative as (1) a hedge of the fair value of a recognized asset or liability, including hedges of foreign currency exposure (“fair value hedge”), (2) a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability (“cash flow hedge”), or (3) held for trading, customer accommodation or asset/liability risk management purposes, including economic hedges not qualifying for hedge accounting. For a fair value hedge, we record changes in the fair value of the derivative and, to the extent that it is effective, changes in the fair value of the hedged asset or liability attributable to the hedged risk, in current period earnings in the same financial statement category as the hedged item. Any ineffectiveness related to a fair value hedge is recorded in other noninterest income. The entire derivative gain or loss is included in the assessment of hedge effectiveness for all fair value hedge relationships, except for those involving foreign-currency denominated available-for-sale securities and long-term debt hedged with foreign currency forward derivatives for which the time value component of the derivative gain or loss related to the changes in the difference between the spot and forward price is excluded from the assessment of hedge effectiveness. For a cash flow hedge, we record changes in the fair value of the derivative to the extent that it is effective in OCI, with any ineffectiveness recorded in other noninterest income. We subsequently reclassify these changes in fair value to net income in the same period(s) that the hedged transaction affects net income in the same financial statement category as the hedged item. Gains and losses on derivatives that are reclassified from OCI to interest income (for loans) and interest expense (for debt) in the current period are included in the line item in which the hedged item’s effect on earnings is recorded. All gain or loss on these derivatives is included in the assessment of hedge effectiveness. For derivatives not designated as a fair value or cash flow hedge, we report changes in the fair values in current period noninterest income.

For fair value and cash flow hedges qualifying for hedge accounting, we formally document at inception the relationship between hedging instruments and hedged items, our risk management objective, strategy and our evaluation of effectiveness for our hedge transactions. This process includes linking all derivatives designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific forecasted transactions. We assess hedge effectiveness using regression analysis, both at inception of the hedging relationship and on an ongoing basis. For fair value hedges, the regression analysis involves regressing the periodic change in fair value of the hedging instrument against the periodic changes in fair value of the asset or liability being hedged due to changes in the hedged risk(s). For cash flow hedges, the regression analysis involves regressing the periodic changes in fair value of the hedging instrument against the periodic changes in fair value of the hypothetical derivative. The hypothetical derivative has terms that identically match and offset the cash flows of the forecasted transaction being hedged due to changes in the hedged risk(s). The assessment for fair value and cash flow hedges includes an evaluation of the quantitative measures of the regression results used to validate the conclusion of high effectiveness. Periodically, as required, we also formally assess whether the derivative we designated in each hedging relationship is expected to be and has been highly effective in offsetting changes in fair values or cash flows of the hedged item using the regression analysis method.

We discontinue hedge accounting prospectively when (1) a derivative is no longer highly effective in offsetting changes in the fair value or cash flows of a hedged item, (2) a derivative expires or is sold, terminated or exercised, (3) we elect to discontinue the designation of a derivative as a hedge, or (4) in a cash flow hedge, a derivative is de-designated because it is no longer probable that a forecasted transaction will occur.

When we discontinue fair value hedge accounting, we no longer adjust the previously hedged asset or liability for changes in fair value, and cumulative adjustments to the hedged item are accounted for in the same manner as other components of the carrying amount of the asset or liability. If the derivative continues to be held after fair value hedge accounting ceases, we carry the derivative on the balance sheet at its fair value with changes in fair value included in noninterest income.

When we discontinue cash flow hedge accounting and it is probable that the forecasted transaction will occur, the accumulated amount reported in OCI at the de-designation date continues to be reported in OCI until the forecasted transaction affects earnings. If cash flow hedge accounting is discontinued and it is probable the forecasted transaction will no longer occur, the accumulated gains and losses reported in OCI at the de-designation date is immediately reclassified to net income in the same financial statement category as the hedged item. If the derivative continues to be held after cash flow hedge accounting ceases, we carry the derivative on the balance sheet at its fair value with future changes in fair value included in noninterest income.

We may purchase or originate financial instruments that contain an embedded derivative. At inception of the financial instrument, we assess (1) if the economic characteristics of the embedded derivative are not clearly and closely related to the economic characteristics of the financial instrument (host contract), (2) if the financial instrument that embodies both the embedded derivative and the host contract is not measured at fair value with changes in fair value reported in noninterest income, and (3) if a separate instrument with the same terms as the embedded instrument would meet the definition of a derivative. If the embedded derivative meets all of these conditions, we separate it from the host contract by recording the bifurcated derivative at fair value and the remaining host contract at the difference between the basis of the hybrid instrument and the fair value of the bifurcated derivative. The bifurcated derivative is carried at fair value with changes recorded in current period noninterest income.

By using derivatives, we are exposed to counterparty credit risk, which is the risk that 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 derivatives subject to master netting arrangements 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. Counterparty credit risk related to derivatives is considered in determining fair value and our assessment of hedge effectiveness.

Operating Lease Assets

Operating lease rental income for leased assets is recognized in other income on a straight-line basis over the lease term. Related depreciation expense is recorded on a straight-line basis over the estimated useful life, considering the estimated residual value of the leased asset. The useful life may be adjusted to the term of the lease depending on our plans for the asset after the lease term. On a periodic basis, leased assets are reviewed for impairment. Impairment loss is recognized if the carrying amount of leased assets exceeds fair value and is not recoverable. The carrying amount of leased assets is 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.

Liability for Mortgage Loan Repurchase Losses

In connection with our sales and securitization of residential mortgage loans to various parties, we establish a mortgage repurchase liability, initially at fair value, related to various representations and warranties that reflect management's estimate of losses for loans for which we could have a repurchase obligation, whether or not we currently service those loans, based on a combination of factors. Such factors include default expectations, expected investor repurchase demands (influenced by current and expected mortgage loan file requests and mortgage insurance rescission notices, as well as estimated levels of origination defects) and appeals success rates (where the investor rescinds the demand based on a cure of the defect or acknowledges that the loan satisfies the investor's applicable representations and warranties), reimbursement by correspondent and other third-party originators, and projected loss severity. We continually update our mortgage repurchase liability estimate during the life of the loans.

The liability for mortgage loan repurchase losses is included in other liabilities. For additional information on our repurchase liability, see Note 9 (Mortgage Banking Activities).

Pension Accounting

We account for our defined benefit pension plans using an actuarial model. Two principal assumptions in determining net periodic pension cost are the discount rate and the expected long-term rate of return on plan assets.

A discount rate is used to estimate the present value of our future pension benefit obligations. We use a consistent methodology to determine the discount rate based upon the yields on multiple portfolios of bonds with maturity dates that closely match the estimated timing of the expected benefit payments for our plans. Such portfolios are derived from a broad-based universe of high quality corporate bonds as of the measurement date.

Our determination of the reasonableness of our expected long-term rate of return on plan assets is highly quantitative by nature. We evaluate the current asset allocations and expected returns under two sets of conditions: (1) projected returns using several forward-looking capital market assumptions, and (2) historical returns for the main asset classes dating back to 1970 or the earliest period for which historical data was readily available for the asset classes included. Using long-term historical data allows us to capture multiple economic environments, which we believe is relevant when using historical returns. We place greater emphasis on the forward-looking return and risk assumptions than on historical results. We use the resulting projections to derive a base line expected rate of return and risk level for the Cash Balance Plan's prescribed asset mix. We evaluate the portfolio based on: (1) the established target asset allocations over short term (one-year) and longer term (ten-year) investment horizons, and (2) the range of potential outcomes over these horizons within specific standard deviations. We perform the above analyses to assess the reasonableness of our expected long-term rate of return on plan assets. We consider the expected rate of return to be a long-term average view of expected returns. The use of an expected long-term rate of return on plan assets may cause us to recognize pension income returns that are greater or less than the actual returns of plan assets in any given year. Differences between expected and actual returns in each year, if any, are included in our net actuarial gain or loss amount, which is recognized in OCI. We generally amortize net actuarial gain or loss in excess of a 5% corridor from accumulated OCI into net periodic pension cost over the estimated average remaining participation period, which at December 31, 2016, is 19 years. See Note 20 (Employee Benefits and Other Expenses) for additional information on our pension accounting.

Income Taxes

We file consolidated and separate company federal income tax returns, foreign tax returns and various combined and separate company state tax returns.

We evaluate two components of income tax expense: current and deferred. Current income tax expense represents our estimated taxes to be paid or refunded for the current period and includes income tax expense related to our uncertain tax positions. We determine deferred income taxes using the balance sheet method. Under this method, the net deferred tax asset or liability is based on the tax effects of the differences between the book and tax bases of assets and liabilities and recognizes enacted changes in tax rates and laws in the period in which they occur. Deferred income tax expense results from changes in deferred tax assets and liabilities between periods. Deferred tax assets are recognized subject to management's judgment that realization is "more likely than not." Uncertain tax positions that meet the more likely than not recognition threshold are measured to determine the amount of benefit to recognize. An uncertain tax position is measured at the largest amount of benefit that management believes has a greater than 50% likelihood of realization upon settlement. Tax benefits not meeting our realization criteria represent unrecognized tax benefits. We account for interest and penalties as a component of income tax expense. We do not record U.S. tax on undistributed earnings of certain non-U.S. subsidiaries to the extent the earnings are indefinitely reinvested outside of the U.S. Foreign taxes paid are generally applied as credits to reduce U.S. income taxes payable.

Stock-Based Compensation

We have stock-based employee compensation plans as more fully discussed in Note 19 (Common Stock and Stock Plans). Our Long-Term Incentive Compensation Plan provides for awards of incentive and nonqualified stock options, stock appreciation rights, restricted shares, restricted share rights (RSRs), performance share awards (PSAs) and stock awards without restrictions. For most awards, we measure the cost of employee services received in exchange for an award of equity instruments, such as stock options, RSRs or PSAs, based on the fair value of the award on the grant date. The cost is normally recognized in our income statement over the vesting period of the award; awards with graded vesting are expensed on a straight-line method. Awards that continue to vest after retirement are expensed over the shorter of the period of time between the grant date and the final vesting period or between the grant date and when a team member becomes retirement eligible; awards to team members who are retirement eligible at the grant date are subject to immediate expensing upon grant.

Beginning in 2013, certain RSRs and all PSAs granted include discretionary conditions that can result in forfeiture and are subject to variable accounting. For these awards, the associated compensation expense fluctuates with changes in our stock price. For PSAs, compensation expense also fluctuates based on the estimated outcome of meeting the performance conditions.

Earnings Per Common Share

We compute earnings per common share by dividing net income (after deducting dividends on preferred stock) by the average number of common shares outstanding during the year. We compute diluted earnings per common share by dividing net income (after deducting dividends on preferred stock) by the average number of common shares outstanding during the year plus the effect of common stock equivalents (for example, stock options, restricted share rights, convertible debentures and warrants) that are dilutive.

Fair Value of Financial Instruments

We use fair value measurements in our fair value disclosures and to record certain assets and liabilities at fair value on a recurring basis, such as trading assets, or on a nonrecurring basis, such as measuring impairment on assets carried at amortized cost.

DETERMINATION OF FAIR VALUE We base our fair values on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. These fair value measurements are based on exit prices and determined by maximizing the use of observable inputs. However, for certain instruments we must utilize unobservable inputs in determining fair value due to the lack of observable inputs in the market, which requires greater judgment in measuring fair value.

In instances where there is limited or no observable market data, fair value measurements for assets and liabilities are based primarily upon our own estimates or combination of our own estimates and third-party vendor or broker pricing, and the measurements are often calculated based on current pricing for products we offer or issue, the economic and competitive environment, the characteristics of the asset or liability and other such factors. As with any valuation technique used to estimate fair value, changes in underlying assumptions used, including discount rates and estimates of future cash flows, could significantly affect the results of current or future values. Accordingly, these fair value estimates may not be realized in an actual sale or immediate settlement of the asset or liability.

We incorporate lack of liquidity into our fair value measurement based on the type of asset or liability measured and the valuation methodology used. For example, for certain residential MHFS and certain securities where the significant inputs have become unobservable due to illiquid markets and vendor or broker pricing is not used, we use a discounted cash flow technique to measure fair value. This technique incorporates forecasting of expected cash flows (adjusted for credit loss assumptions and estimated prepayment speeds) discounted at an appropriate market discount rate to reflect the lack of liquidity in the market that a market participant would consider. For other securities where vendor or broker pricing is used, we use either unadjusted broker quotes or vendor prices or vendor or broker prices adjusted by weighting them with internal discounted cash flow techniques to measure fair value. These unadjusted vendor or broker prices inherently reflect any lack of liquidity in the market, as the fair value measurement represents an exit price from a market participant viewpoint.

Where markets are inactive and transactions are not orderly, transaction or quoted prices for assets or liabilities in inactive markets may require adjustment due to the uncertainty of whether the underlying transactions are orderly. For items that use price quotes in inactive markets, we analyze the degree of market inactivity and distressed transactions to determine the appropriate adjustment to the price quotes.

We continually assess the level and volume of market activity in our investment security classes in determining adjustments, if any, to price quotes. Given market conditions can change over time, our determination of which securities markets are considered active or inactive can change. If we determine a market to be inactive, the degree to which price quotes require adjustment, can also change. See Note 17 (Fair Values of Assets and Liabilities) for discussion of the fair value hierarchy and valuation methodologies applied to financial instruments to determine fair value.

Private Share Repurchases

During 2016 and 2015, we repurchased approximately 56 million shares and 64 million shares of our common stock, respectively, under private forward repurchase contracts. We enter into these transactions with unrelated third parties to complement our open-market common stock repurchase strategies, to allow us to manage our share repurchases in a manner consistent with our capital plans, currently submitted under the Comprehensive Capital Analysis and Review (CCAR), and to provide an economic benefit to the Company.

Our payments to the counterparties for these private share 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 contemplated a fixed dollar amount available per quarter for share repurchases pursuant to Federal Reserve Board (FRB) supervisory guidance. In return, the counterparty agrees to deliver a variable number of shares based on a per share discount to the volume-weighted average stock price over the contract period. There are no scenarios where the contracts would not either physically settle in shares or allow us to choose the settlement method.

In fourth quarter 2016, we entered into a private forward repurchase contract and paid $750 million to an unrelated third party. This contract settled in first quarter 2017 for 14.7 million shares of common stock. At December 31, 2015, we had a $500 million private forward repurchase contract outstanding that settled in first quarter 2016 for 9.2 million shares of common stock. Our total number of outstanding shares of common stock is not reduced until settlement of the private share repurchase contract.

SUPPLEMENTAL CASH FLOW INFORMATION Noncash activities are presented in Table 1.1, including information on transfers affecting MHFS, LHFS, and MSRs.

Table 1.1: Supplemental Cash Flow Information

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Trading assets retained from securitizations of MHFS	$ **72,399**	46,291	28,604
Transfers from loans to MHFS	**6,894**	9,205	11,021
Transfers from loans to LHFS	**306**	90	9,849
Transfers from loans to foreclosed and other assets	**3,092**	3,274	4,094
Transfers from available-for-sale to held-to-maturity securities	**4,161**	4,972	1,810
Deconsolidation of reverse mortgages previously sold:			
Loans	**3,807**	—	—
Long-term debt	**3,769**	—	—

SUBSEQUENT EVENTS We have evaluated the effects of events that have occurred subsequent to December 31, 2016, and there have been no material events that would require recognition in our 2016 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 also periodically review existing businesses to ensure they remain strategically aligned with our operating business model and risk profile.

Business combinations completed in 2016, 2015 and 2014 are presented in Table 2.1. As of December 31, 2016, we had no pending acquisitions.

Table 2.1: Business Combinations Activity

Name of acquisition	Location	Type of business	Date	Total assets (in millions)
2016:				
GE Railcar Services	**Chicago, IL**	**Railcar and locomotive leasing**	**January 1**	**$ 4,339**
GE Capital's Commercial Distribution Finance and Vendor Finance Businesses	**North America, Asia, Australia / New Zealand and EMEA**	**Specialty Lending**	**March 1, July 1, August 1 & October 1**	**32,531**
Analytic Investors, LLC	**Los Angeles, CA**	**Asset Management**	**October 1**	**106**
				$ 36,976
2015:				
hs.Financial Products GmbH	Germany	Asset Management	November 30	$ 3
2014:				
Helm Financial Corporation	San Francisco, CA	Railcar and locomotive leasing	April 15	$ 422

We also completed two significant and a few small divestitures during 2016. On March 31, 2016, we completed the divestiture of Rural Community Insurance, our crop insurance business. The transaction resulted in a pre-tax gain for 2016 of $374 million. On May 31, 2016, we sold our health benefit services business, which resulted in a pre-tax gain of $290 million.

Note 3: Cash, Loan and Dividend Restrictions

Federal Reserve Board (FRB) regulations require that each of our subsidiary banks maintain reserve balances on deposit with the Federal Reserve Banks. The total daily average required reserve balance for all our subsidiary banks was $10.7 billion in 2016 and $10.6 billion in 2015.

Federal law restricts the amount and the terms of both credit and non-credit transactions between a bank and its nonbank affiliates. These covered transactions may not exceed 10% of the bank's capital and surplus (which for this purpose represents Tier 1 and Tier 2 capital, as calculated under the risk-based capital (RBC) guidelines, plus the balance of the allowance for credit losses excluded from Tier 2 capital) with any single nonbank affiliate and 20% of the bank's capital and surplus with all its nonbank affiliates. Transactions that are extensions of credit may require collateral to be held to provide added security to the bank. For further discussion of RBC, see Note 26 (Regulatory and Agency Capital Requirements) in this Report.

Dividends paid by our subsidiary banks are subject to various federal and state regulatory limitations. Dividends that may be paid by a national bank without the express approval of the Office of the Comptroller of the Currency (OCC) are limited to that bank's retained net profits for the preceding two calendar years plus retained net profits up to the date of any dividend declaration in the current calendar year. Retained net profits, as defined by the OCC, consist of net income less dividends declared during the period.

We also 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 $17.8 billion at December 31, 2016. We have elected to retain higher capital at our national and state-chartered subsidiary banks in order to meet internal capital policy minimums and regulatory requirements. 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. Based on retained earnings at December 31, 2016, our nonbank subsidiaries could have declared additional dividends of $10.7 billion at December 31, 2016, without obtaining prior approval.

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 $0.38 per share as declared by the Company's Board of Directors on January 24, 2017, payable on March 1, 2017.

Note 4: Federal Funds Sold, Securities Purchased under Resale Agreements and Other Short-Term Investments

Table 4.1 provides the detail of federal funds sold, securities purchased under short-term resale agreements (generally less than one year) and other short-term investments. Substantially all of the interest-earning deposits at December 31, 2016 and 2015 were held at the Federal Reserve.

Table 4.1: Fed Funds Sold and Other Short-Term Investments

(in millions)		Dec 31, 2016	Dec 31, 2015
Federal funds sold and securities purchased under resale agreements	$	**58,215**	45,828
Interest-earning deposits		**200,671**	220,409
Other short-term investments		**7,152**	3,893
Total	$	**266,038**	270,130

As part of maintaining our memberships in certain clearing organizations, we are required to stand ready to provide liquidity meant to sustain market clearing activity in the event unforeseen events occur or are deemed likely to occur. This includes commitments we have entered into to purchase securities under resale agreements from a central clearing organization that, at its option, require us to provide funding under such agreements. We do not have any outstanding amounts funded, and the amount of our unfunded contractual commitment was $2.9 billion and $2.2 billion as of December 31, 2016 and 2015, respectively.

We have classified securities purchased under long-term resale agreements (generally one year or more), which totaled $21.3 billion and $20.1 billion at December 31, 2016 and 2015, respectively, in loans. For additional information on the collateral we receive from other entities under resale agreements and securities borrowings, see the "Offsetting of Resale and Repurchase Agreements and Securities Borrowing and Lending Agreements" section in Note 14 (Guarantees, Pledged Assets and Collateral).

Note 5: Investment Securities

Table 5.1 provides the amortized cost and fair value by major categories of available-for-sale securities, which are carried at fair value, and held-to-maturity debt securities, which are carried at amortized cost. The net unrealized gains (losses) for available-for-sale securities are reported on an after-tax basis as a component of cumulative OCI.

Table 5.1: Amortized Cost and Fair Value

(in millions)	Amortized Cost	Gross unrealized gains	Gross unrealized losses	Fair value
December 31, 2016				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	**$ 25,874**	**54**	**(109)**	**25,819**
Securities of U.S. states and political subdivisions	**52,121**	**551**	**(1,571)**	**51,101**
Mortgage-backed securities:				
Federal agencies	**163,513**	**1,175**	**(3,458)**	**161,230**
Residential	**7,375**	**449**	**(8)**	**7,816**
Commercial	**8,475**	**101**	**(74)**	**8,502**
Total mortgage-backed securities	**179,363**	**1,725**	**(3,540)**	**177,548**
Corporate debt securities	**11,186**	**381**	**(110)**	**11,457**
Collateralized loan and other debt obligations (1)	**34,764**	**287**	**(31)**	**35,020**
Other (2)	**6,139**	**104**	**(35)**	**6,208**
Total debt securities	**309,447**	**3,102**	**(5,396)**	**307,153**
Marketable equity securities:				
Perpetual preferred securities	**445**	**35**	**(11)**	**469**
Other marketable equity securities	**261**	**481**	**—**	**742**
Total marketable equity securities	**706**	**516**	**(11)**	**1,211**
Total available-for-sale securities	**310,153**	**3,618**	**(5,407)**	**308,364**
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	**44,690**	**466**	**(77)**	**45,079**
Securities of U.S. states and political subdivisions	**6,336**	**17**	**(144)**	**6,209**
Federal agency and other mortgage-backed securities (3)	**45,161**	**100**	**(804)**	**44,457**
Collateralized loan obligations	**1,065**	**6**	**(1)**	**1,070**
Other (2)	**2,331**	**10**	**(1)**	**2,340**
Total held-to-maturity securities	**99,583**	**599**	**(1,027)**	**99,155**
Total (4)	**$ 409,736**	**4,217**	**(6,434)**	**407,519**
December 31, 2015				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	$ 36,374	24	(148)	36,250
Securities of U.S. states and political subdivisions	49,167	1,325	(502)	49,990
Mortgage-backed securities:				
Federal agencies	103,391	1,983	(828)	104,546
Residential	7,843	740	(25)	8,558
Commercial	13,943	230	(85)	14,088
Total mortgage-backed securities	125,177	2,953	(938)	127,192
Corporate debt securities	15,548	312	(449)	15,411
Collateralized loan and other debt obligations (1)	31,210	125	(368)	30,967
Other (2)	5,842	115	(46)	5,911
Total debt securities	263,318	4,854	(2,451)	265,721
Marketable equity securities:				
Perpetual preferred securities	819	112	(13)	918
Other marketable equity securities	239	482	(2)	719
Total marketable equity securities	1,058	594	(15)	1,637
Total available-for-sale-securities	264,376	5,448	(2,466)	267,358
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	44,660	580	(73)	45,167
Securities of U.S. states and political subdivisions	2,185	65	—	2,250
Federal agency and other mortgage-backed securities (3)	28,604	131	(314)	28,421
Collateralized loan obligations	1,405	—	(24)	1,381
Other (2)	3,343	8	(3)	3,348
Total held-to-maturity securities	80,197	784	(414)	80,567
Total (4)	$ 344,573	6,232	(2,880)	347,925

(1) The available-for-sale portfolio includes collateralized debt obligations (CDOs) with a cost basis and fair value of $819 million and $847 million, respectively, at December 31, 2016, and $247 million and $257 million, respectively, at December 31, 2015.
(2) The "Other" category of available-for-sale securities primarily includes asset-backed securities collateralized by student loans. Included in the "Other" category of held-to-maturity securities are asset-backed securities collateralized by automobile leases or loans and cash with a cost basis and fair value of $1.3 billion each at December 31, 2016, and $1.9 billion each at December 31, 2015. Also included in the "Other" category of held-to-maturity securities are asset-backed securities collateralized by dealer floorplan loans with a cost basis and fair value of $1.1 billion each at December 31, 2016, and $1.4 billion each at December 31, 2015.
(3) Predominantly consists of federal agency mortgage-backed securities at December 31, 2016. The entire balance consists of federal agency mortgage-backed securities at December 31, 2015.
(4) At December 31, 2016 and 2015, we held no securities of any single issuer (excluding the U.S. Treasury and federal agencies and government-sponsored entities (GSEs)) with a book value that exceeded 10% of stockholder's equity.

Gross Unrealized Losses and Fair Value

Table 5.2 shows the gross unrealized losses and fair value of securities in the investment securities portfolio by length of time that individual securities in each category have been in a continuous loss position. Debt securities on which we have taken credit-related OTTI write-downs are categorized as being "less than 12 months" or "12 months or more" in a continuous loss position based on the point in time that the fair value declined to below the cost basis and not the period of time since the credit-related OTTI write-down.

Table 5.2: Gross Unrealized Losses and Fair Value

	Less than 12 months		12 months or more		Total	
(in millions)	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
December 31, 2016						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	**$ (109)**	**10,816**	**—**	**—**	**(109)**	**10,816**
Securities of U.S. states and political subdivisions	**(341)**	**17,412**	**(1,230)**	**16,213**	**(1,571)**	**33,625**
Mortgage-backed securities:						
Federal agencies	**(3,338)**	**120,735**	**(120)**	**3,481**	**(3,458)**	**124,216**
Residential	**(4)**	**527**	**(4)**	**245**	**(8)**	**772**
Commercial	**(43)**	**1,459**	**(31)**	**1,690**	**(74)**	**3,149**
Total mortgage-backed securities	**(3,385)**	**122,721**	**(155)**	**5,416**	**(3,540)**	**128,137**
Corporate debt securities	**(11)**	**946**	**(99)**	**1,229**	**(110)**	**2,175**
Collateralized loan and other debt obligations	**(2)**	**1,899**	**(29)**	**3,197**	**(31)**	**5,096**
Other	**(9)**	**971**	**(26)**	**1,262**	**(35)**	**2,233**
Total debt securities	**(3,857)**	**154,765**	**(1,539)**	**27,317**	**(5,396)**	**182,082**
Marketable equity securities:						
Perpetual preferred securities	**(3)**	**41**	**(8)**	**45**	**(11)**	**86**
Other marketable equity securities	**—**	**—**	**—**	**—**	**—**	**—**
Total marketable equity securities	**(3)**	**41**	**(8)**	**45**	**(11)**	**86**
Total available-for-sale securities	**(3,860)**	**154,806**	**(1,547)**	**27,362**	**(5,407)**	**182,168**
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	**(77)**	**6,351**	**—**	**—**	**(77)**	**6,351**
Securities of U.S. states and political subdivisions	**(144)**	**4,871**	**—**	**—**	**(144)**	**4,871**
Federal agency and other mortgage-backed securities	**(804)**	**40,095**	**—**	**—**	**(804)**	**40,095**
Collateralized loan obligations	**—**	**—**	**(1)**	**266**	**(1)**	**266**
Other	**—**	**—**	**(1)**	**633**	**(1)**	**633**
Total held-to-maturity securities	**(1,025)**	**51,317**	**(2)**	**899**	**(1,027)**	**52,216**
Total	**$ (4,885)**	**206,123**	**(1,549)**	**28,261**	**(6,434)**	**234,384**
December 31, 2015						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	$ (148)	24,795	—	—	(148)	24,795
Securities of U.S. states and political subdivisions	(26)	3,453	(476)	12,377	(502)	15,830
Mortgage-backed securities:						
Federal agencies	(522)	36,329	(306)	9,888	(828)	46,217
Residential	(20)	1,276	(5)	285	(25)	1,561
Commercial	(32)	4,476	(53)	2,363	(85)	6,839
Total mortgage-backed securities	(574)	42,081	(364)	12,536	(938)	54,617
Corporate debt securities	(244)	4,941	(205)	1,057	(449)	5,998
Collateralized loan and other debt obligations	(276)	22,214	(92)	4,844	(368)	27,058
Other	(33)	2,768	(13)	425	(46)	3,193
Total debt securities	(1,301)	100,252	(1,150)	31,239	(2,451)	131,491
Marketable equity securities:						
Perpetual preferred securities	(1)	24	(12)	109	(13)	133
Other marketable equity securities	(2)	40	—	—	(2)	40
Total marketable equity securities	(3)	64	(12)	109	(15)	173
Total available-for-sale securities	(1,304)	100,316	(1,162)	31,348	(2,466)	131,664
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	(73)	5,264	—	—	(73)	5,264
Securities of U.S. states and political subdivisions	—	—	—	—	—	—
Federal agency and other mortgage-backed securities	(314)	23,115	—	—	(314)	23,115
Collateralized loan obligations	(20)	1,148	(4)	233	(24)	1,381
Other	(3)	1,096	—	—	(3)	1,096
Total held-to-maturity securities	(410)	30,623	(4)	233	(414)	30,856
Total	$ (1,714)	130,939	(1,166)	31,581	(2,880)	162,520

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

For descriptions of the factors we consider when analyzing securities for impairment, see Note 1 (Summary of Significant Accounting Policies) and below.

SECURITIES OF U.S. TREASURY AND FEDERAL AGENCIES AND FEDERAL AGENCY MORTGAGE-BACKED SECURITIES (MBS) The unrealized losses associated with U.S. Treasury and federal agency securities and federal agency MBS are primarily driven by changes in interest rates and not due to credit losses given the explicit or implicit guarantees provided by the U.S. government.

SECURITIES OF U.S. STATES AND POLITICAL SUBDIVISIONS The unrealized losses associated with securities of U.S. states and political subdivisions are primarily driven by changes in the relationship between municipal and term funding credit curves rather than by changes to the credit quality of the underlying securities. Substantially all of these investments are investment grade. The securities were generally underwritten in accordance with our own investment standards prior to the decision to purchase. Some of these securities are guaranteed by a bond insurer, but we did not rely on this guarantee when making our investment decision. These investments will continue to be monitored as part of our ongoing impairment analysis but are expected to perform, even if the rating agencies reduce the credit rating of the bond insurers. As a result, we expect to recover the entire amortized cost basis of these securities.

RESIDENTIAL AND COMMERCIAL MBS The unrealized losses associated with private residential MBS and commercial MBS are primarily driven by changes in projected collateral losses, credit spreads and interest rates. We assess for credit impairment by estimating the present value of expected cash flows. The key assumptions for determining expected cash flows include default rates, loss severities and/or prepayment rates. We estimate security losses by forecasting the underlying mortgage loans in each transaction. We use forecasted loan performance to project cash flows to the various tranches in the structure. We also consider cash flow forecasts and, as applicable, independent industry analyst reports and forecasts, sector credit ratings, and other independent market data. Based upon our assessment of the expected credit losses and the credit enhancement level of the securities, we expect to recover the entire amortized cost basis of these securities.

CORPORATE DEBT SECURITIES The unrealized losses associated with corporate debt securities are primarily related to unsecured debt obligations issued by various corporations. We evaluate the financial performance of each issuer on a quarterly basis to determine if the issuer can make all contractual principal and interest payments. Based upon this assessment, we expect to recover the entire amortized cost basis of these securities.

COLLATERALIZED LOAN AND OTHER DEBT OBLIGATIONS The unrealized losses associated with collateralized loan and other debt obligations relate to securities primarily backed by commercial, residential or other consumer collateral. The unrealized losses are primarily driven by changes in projected collateral losses, credit spreads and interest rates. We assess for credit impairment by estimating the present value of expected cash flows. The key assumptions for determining expected cash flows include default rates, loss severities and prepayment rates. We also consider cash flow forecasts and, as applicable, independent industry analyst reports and forecasts, sector credit ratings, and other independent market data. Based upon our assessment of the expected credit losses and the credit enhancement level of the securities, we expect to recover the entire amortized cost basis of these securities.

OTHER DEBT SECURITIES The unrealized losses associated with other debt securities predominantly relate to other asset-backed securities. The losses are primarily driven by changes in projected collateral losses, credit spreads and interest rates. We assess for credit impairment by estimating the present value of expected cash flows. The key assumptions for determining expected cash flows include default rates, loss severities and prepayment rates. Based upon our assessment of the expected credit losses and the credit enhancement level of the securities, we expect to recover the entire amortized cost basis of these securities.

MARKETABLE EQUITY SECURITIES Our marketable equity securities include investments in perpetual preferred securities, which provide attractive tax-equivalent yields. We evaluate these hybrid financial instruments with investment-grade ratings for impairment using an evaluation methodology similar to the approach used for debt securities. Perpetual preferred securities are not considered to be other-than-temporarily impaired if there is no evidence of credit deterioration or investment rating downgrades of any issuers to below investment grade, and we expect to continue to receive full contractual payments. We will continue to evaluate the prospects for these securities for recovery in their market value in accordance with our policy for estimating OTTI. We have recorded impairment write-downs on perpetual preferred securities where there was evidence of credit deterioration.

OTHER INVESTMENT SECURITIES MATTERS The fair values of our investment securities could decline in the future if the underlying performance of the collateral for the residential and commercial MBS or other securities deteriorate, and our credit enhancement levels do not provide sufficient protection to our contractual principal and interest. As a result, there is a risk that significant OTTI may occur in the future.

Table 5.3 shows the gross unrealized losses and fair value of debt and perpetual preferred investment securities by those rated investment grade and those rated less than investment grade, according to their lowest credit rating by Standard & Poor's Rating Services (S&P) or Moody's Investors Service (Moody's). Credit ratings express opinions about the credit quality of a security. Securities rated investment grade, that is those rated BBB- or higher by S&P or Baa3 or higher by Moody's, are generally considered by the rating agencies and market participants to be low credit risk. Conversely, securities rated below investment grade, labeled as "speculative grade" by the rating agencies, are considered to be distinctively higher credit risk than investment grade securities. We have also included securities not rated by S&P or Moody's in the table below based on our internal credit grade of the securities (used for credit risk management purposes) equivalent to the credit rating assigned by major credit agencies. The unrealized losses and fair value of unrated securities categorized as investment grade based on internal credit grades were $54 million and $7.0 billion, respectively, at December 31, 2016, and $17 million and $3.7 billion, respectively, at December 31, 2015. If an internal credit grade was not assigned, we categorized the security as non-investment grade.

Table 5.3: Gross Unrealized Losses and Fair Value by Investment Grade

	Investment grade		Non-investment grade	
(in millions)	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value
December 31, 2016				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	**$ (109)**	**10,816**	**—**	**—**
Securities of U.S. states and political subdivisions	**(1,517)**	**33,271**	**(54)**	**354**
Mortgage-backed securities:				
Federal agencies	**(3,458)**	**124,216**	**—**	**—**
Residential	**(1)**	**176**	**(7)**	**596**
Commercial	**(15)**	**2,585**	**(59)**	**564**
Total mortgage-backed securities	**(3,474)**	**126,977**	**(66)**	**1,160**
Corporate debt securities	**(31)**	**1,238**	**(79)**	**937**
Collateralized loan and other debt obligations	**(31)**	**5,096**	**—**	**—**
Other	**(30)**	**1,842**	**(5)**	**391**
Total debt securities	**(5,192)**	**179,240**	**(204)**	**2,842**
Perpetual preferred securities	**(10)**	**68**	**(1)**	**18**
Total available-for-sale securities	**(5,202)**	**179,308**	**(205)**	**2,860**
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	**(77)**	**6,351**	**—**	**—**
Securities of U.S. states and political subdivisions	**(144)**	**4,871**	**—**	**—**
Federal agency and other mortgage-backed securities	**(803)**	**40,078**	**(1)**	**17**
Collateralized loan obligations	**(1)**	**266**	**—**	**—**
Other	**(1)**	**633**	**—**	**—**
Total held-to-maturity securities	**(1,026)**	**52,199**	**(1)**	**17**
Total	**$ (6,228)**	**231,507**	**(206)**	**2,877**
December 31, 2015				
Available-for-sale securities:				
Securities of U.S. Treasury and federal agencies	$ (148)	24,795	—	—
Securities of U.S. states and political subdivisions	(464)	15,470	(38)	360
Mortgage-backed securities:				
Federal agencies	(828)	46,217	—	—
Residential	(12)	795	(13)	766
Commercial	(59)	6,361	(26)	478
Total mortgage-backed securities	(899)	53,373	(39)	1,244
Corporate debt securities	(140)	4,167	(309)	1,831
Collateralized loan and other debt obligations	(368)	27,058	—	—
Other	(43)	2,915	(3)	278
Total debt securities	(2,062)	127,778	(389)	3,713
Perpetual preferred securities	(13)	133	—	—
Total available-for-sale securities	(2,075)	127,911	(389)	3,713
Held-to-maturity securities:				
Securities of U.S. Treasury and federal agencies	(73)	5,264	—	—
Securities of U.S. states and political subdivisions	—	—	—	—
Federal agency and other mortgage-backed securities	(314)	23,115	—	—
Collateralized loan obligations	(24)	1,381	—	—
Other	(3)	1,096	—	—
Total held-to-maturity securities	(414)	30,856	—	—
Total	$ (2,489)	158,767	(389)	3,713

Contractual Maturities

Table 5.4 shows the remaining contractual maturities and contractual weighted-average yields (taxable-equivalent basis) of available-for-sale debt securities. The remaining contractual principal maturities for MBS do not consider prepayments. Remaining expected maturities will differ from contractual maturities because borrowers may have the right to prepay obligations before the underlying mortgages mature.

Table 5.4: Contractual Maturities

			Remaining contractual maturity							
	Total		Within one year		After one year through five years		After five years through ten years		After ten years	
(in millions)	amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
December 31, 2016										
Available-for-sale debt securities (1):										
Fair value:										
Securities of U.S. Treasury and federal agencies	**$ 25,819**	**1.44 %**	**$ 1,328**	**0.92 %**	**$ 23,477**	**1.45 %**	**$ 1,014**	**1.80 %**	**$ —**	**— %**
Securities of U.S. states and political subdivisions	**51,101**	**5.65**	**2,990**	**1.69**	**9,299**	**2.74**	**2,391**	**4.71**	**36,421**	**6.78**
Mortgage-backed securities:										
Federal agencies	**161,230**	**3.09**	**—**	**—**	**128**	**2.98**	**5,363**	**3.16**	**155,739**	**3.09**
Residential	**7,816**	**3.84**	**—**	**—**	**25**	**5.21**	**35**	**4.34**	**7,756**	**3.83**
Commercial	**8,502**	**4.58**	**—**	**—**	**—**	**—**	**30**	**3.13**	**8,472**	**4.59**
Total mortgage-backed securities	**177,548**	**3.19**	**—**	**—**	**153**	**3.34**	**5,428**	**3.16**	**171,967**	**3.19**
Corporate debt securities	**11,457**	**4.81**	**2,043**	**2.90**	**3,374**	**5.89**	**4,741**	**4.71**	**1,299**	**5.38**
Collateralized loan and other debt obligations	**35,020**	**2.70**	**—**	**—**	**168**	**1.34**	**16,482**	**2.66**	**18,370**	**2.74**
Other	**6,208**	**2.18**	**57**	**3.06**	**971**	**2.35**	**1,146**	**2.04**	**4,034**	**2.17**
Total available-for-sale debt securities at fair value	**$ 307,153**	**3.44 %**	**$ 6,418**	**1.93 %**	**$ 37,442**	**2.20 %**	**$ 31,202**	**3.17 %**	**$232,091**	**3.72 %**
December 31, 2015										
Available-for-sale debt securities (1):										
Fair value:										
Securities of U.S. Treasury and federal agencies	$ 36,250	1.49 %	$ 216	0.77 %	$ 31,602	1.44 %	$ 4,432	1.86 %	$ —	— %
Securities of U.S. states and political subdivisions	49,990	5.82	1,969	2.09	7,709	2.02	3,010	5.25	37,302	6.85
Mortgage-backed securities:										
Federal agencies	104,546	3.29	3	6.55	373	1.58	1,735	3.84	102,435	3.29
Residential	8,558	4.17	—	—	34	5.11	34	6.03	8,490	4.16
Commercial	14,088	5.06	—	—	61	2.79	—	—	14,027	5.07
Total mortgage-backed securities	127,192	3.54	3	6.55	468	1.99	1,769	3.88	124,952	3.55
Corporate debt securities	15,411	4.57	1,960	3.84	6,731	4.47	5,459	4.76	1,261	5.47
Collateralized loan and other debt obligations	30,967	2.08	2	0.33	804	0.90	12,707	2.01	17,454	2.19
Other	5,911	2.05	68	2.47	1,228	2.57	953	1.94	3,662	1.89
Total available-for-sale debt securities at fair value	$ 265,721	3.55 %	$ 4,218	2.84 %	$ 48,542	1.98 %	$ 28,330	2.98 %	$ 184,631	4.07 %

(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: Amortized Cost by Contractual Maturity

			Remaining contractual maturity							
	Total		Within one year		After one year through five years		After five years through ten years		After ten years	
(in millions)	amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield	Amount	Yield
December 31, 2016										
Held-to-maturity securities (1):										
Amortized cost:										
Securities of U.S. Treasury and federal agencies	**$ 44,690**	**2.12 %**	**$ —**	**— %**	**$ 31,956**	**2.05 %**	**$ 12,734**	**2.30 %**	**$ —**	**— %**
Securities of U.S. states and political subdivisions	**6,336**	**6.04**	**—**	**—**	**24**	**8.20**	**436**	**6.76**	**5,876**	**5.98**
Federal agency and other mortgage-backed securities	**45,161**	**3.23**	**—**	**—**	**—**	**—**	**—**	**—**	**45,161**	**3.23**
Collateralized loan obligations	**1,065**	**2.58**	**—**	**—**	**—**	**—**	**1,065**	**2.58**	**—**	**—**
Other	**2,331**	**1.83**	**—**	**—**	**1,683**	**1.81**	**648**	**1.89**	**—**	**—**
Total held-to-maturity debt securities at amortized cost	**$ 99,583**	**2.87 %**	**$ —**	**— %**	**$ 33,663**	**2.04 %**	**$ 14,883**	**2.43 %**	**$ 51,037**	**3.55 %**
December 31, 2015										
Held-to-maturity securities (1):										
Amortized cost:										
Securities of U.S. Treasury and federal agencies	$ 44,660	2.12 %	$ —	— %	$ 1,276	1.75 %	$ 43,384	2.13 %	$ —	— %
Securities of U.S. states and political subdivisions	2,185	5.97	—	—	—	—	104	7.49	2,081	5.89
Federal agency and other mortgage-backed securities	28,604	3.47	—	—	—	—	—	—	28,604	3.47
Collateralized loan obligations	1,405	2.03	—	—	—	—	—	—	1,405	2.03
Other	3,343	1.68	—	—	2,351	1.74	992	1.53	—	—
Total held-to-maturity debt securities at amortized cost	$ 80,197	2.69 %	$ —	— %	$ 3,627	1.74 %	$ 44,480	2.13 %	$ 32,090	3.57 %

(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: Fair Value by Contractual Maturity

		Remaining contractual maturity			
	Total	Within one year	After one year through five years	After five years through ten years	After ten years
(in millions)	amount	Amount	Amount	Amount	Amount
December 31, 2016					
Held-to-maturity securities:					
Fair value:					
Securities of U.S. Treasury and federal agencies	**$ 45,079**	**—**	**32,313**	**12,766**	**—**
Securities of U.S. states and political subdivisions	**6,209**	**—**	**24**	**430**	**5,755**
Federal agency and other mortgage-backed securities	**44,457**	**—**	**—**	**—**	**44,457**
Collateralized loan obligations	**1,070**	**—**	**—**	**1,070**	**—**
Other	**2,340**	**—**	**1,688**	**652**	**—**
Total held-to-maturity debt securities at fair value	**$ 99,155**	**—**	**34,025**	**14,918**	**50,212**
December 31, 2015					
Held-to-maturity securities:					
Fair value:					
Securities of U.S. Treasury and federal agencies	$ 45,167	—	1,298	43,869	—
Securities of U.S. states and political subdivisions	2,250	—	—	105	2,145
Federal agency and other mortgage-backed securities	28,421	—	—	—	28,421
Collateralized loan obligations	1,381	—	—	—	1,381
Other	3,348	—	2,353	995	—
Total held-to-maturity debt securities at fair value	$ 80,567	—	3,651	44,969	31,947

Realized Gains and Losses

Table 5.7 shows the gross realized gains and losses on sales and OTTI write-downs related to the available-for-sale securities portfolio, which includes marketable equity securities, as well as net realized gains and losses on nonmarketable equity investments (see Note 7 (Premises, Equipment, Lease Commitments and Other Assets)).

Table 5.7: Realized Gains and Losses

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Gross realized gains	**$ 1,542**	1,775	1,560
Gross realized losses	**(106)**	(67)	(14)
OTTI write-downs	**(194)**	(185)	(52)
Net realized gains from available-for-sale securities	**1,242**	1,523	1,494
Net realized gains from nonmarketable equity investments	**579**	1,659	1,479
Net realized gains from debt securities and equity investments	**$ 1,821**	3,182	2,973

Other-Than-Temporary Impairment

Table 5.8 shows the detail of total OTTI write-downs included in earnings for available-for-sale debt securities, marketable equity securities and nonmarketable equity investments. There were no OTTI write-downs on held-to-maturity securities during the years ended December 31, 2016, 2015 or 2014.

Table 5.8: OTTI Write-downs

	Year ended December 31,		
(in millions)	**2016**	2015	2014
OTTI write-downs included in earnings			
Debt securities:			
Securities of U.S. states and political subdivisions	**$ 63**	18	11
Mortgage-backed securities:			
Residential	**34**	54	26
Commercial	**14**	4	9
Corporate debt securities	**72**	105	1
Collateralized loan and other debt obligations	**—**	—	2
Other debt securities	**6**	2	—
Total debt securities	**189**	183	49
Equity securities:			
Marketable equity securities:			
Other marketable equity securities	**5**	2	3
Total marketable equity securities	**5**	2	3
Total investment securities (1)	**194**	185	52
Nonmarketable equity investments (1)	**448**	374	270
Total OTTI write-downs included in earnings (1)	**$ 642**	559	322

(1) The years ended December 31, 2016 and December 31, 2015, include $258 million and $287 million, respectively, in OTTI write-downs of oil and gas investments, of which $88 million and $104 million, respectively, related to investment securities and $170 million and $183 million, respectively, related to nonmarketable equity investments.

Other-Than-Temporarily Impaired Debt Securities

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

	Year ended December 31,		
(in millions)	**2016**	2015	2014
OTTI on debt securities			
Recorded as part of gross realized losses:			
Credit-related OTTI	**$ 143**	169	40
Intent-to-sell OTTI	**46**	14	9
Total recorded as part of gross realized losses	**189**	183	49
Changes to OCI for losses (reversal of losses) in non-credit-related OTTI (1):			
Securities of U.S. states and political subdivisions	**8**	(1)	—
Residential mortgage-backed securities	**(3)**	(42)	(10)
Commercial mortgage-backed securities	**24**	(16)	(21)
Corporate debt securities	**(13)**	12	—
Other debt securities	**2**	—	—
Total changes to OCI for non-credit-related OTTI	**18**	(47)	(31)
Total OTTI losses recorded on debt securities	**$ 207**	136	18

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

Table 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

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Credit loss recognized, beginning of year	**$ 1,092**	1,025	1,171
Additions:			
For securities with initial credit impairments	**85**	102	5
For securities with previous credit impairments	**58**	67	35
Total additions	**143**	169	40
Reductions:			
For securities sold, matured, or intended/required to be sold	**(184)**	(93)	(169)
For recoveries of previous credit impairments (1)	**(8)**	(9)	(17)
Total reductions	**(192)**	(102)	(186)
Credit loss recognized, end of year	**$ 1,043**	1,092	1,025

(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 $4.4 billion and $3.8 billion at December 31, 2016 and 2015, respectively, for unearned income, net deferred loan fees, and unamortized discounts and premiums. Outstanding balances at December 31, 2016 also reflect the acquisition of various loans and capital leases from GE Capital as described in Note 2 (Business Combinations).

Table 6.1: Loans Outstanding

					December 31,
(in millions)	**2016**	2015	2014	2013	2012
Commercial:					
Commercial and industrial	**$ 330,840**	299,892	271,795	235,358	223,703
Real estate mortgage	**132,491**	122,160	111,996	112,427	106,392
Real estate construction	**23,916**	22,164	18,728	16,934	16,983
Lease financing	**19,289**	12,367	12,307	12,371	12,736
Total commercial	**506,536**	456,583	414,826	377,090	359,814
Consumer:					
Real estate 1-4 family first mortgage	**275,579**	273,869	265,386	258,507	249,912
Real estate 1-4 family junior lien mortgage	**46,237**	53,004	59,717	65,950	75,503
Credit card	**36,700**	34,039	31,119	26,882	24,651
Automobile	**62,286**	59,966	55,740	50,808	45,998
Other revolving credit and installment	**40,266**	39,098	35,763	43,049	42,473
Total consumer	**461,068**	459,976	447,725	445,196	438,537
Total loans	**$ 967,604**	916,559	862,551	822,286	798,351

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

					December 31,
(in millions)	**2016**	2015	2014	2013	2012
Commercial foreign loans:					
Commercial and industrial	**$ 55,396**	49,049	44,707	41,547	37,148
Real estate mortgage	**8,541**	8,350	4,776	5,328	52
Real estate construction	**375**	444	218	187	79
Lease financing	**972**	274	336	338	312
Total commercial foreign loans	**$ 65,284**	58,117	50,037	47,400	37,591

Loan Concentrations

Loan concentrations may exist when there are amounts loaned to borrowers engaged in similar activities or similar types of loans extended to a diverse group of borrowers that would cause them to be similarly impacted by economic or other conditions. At December 31, 2016 and 2015, we did not have concentrations representing 10% or more of our total loan portfolio in domestic commercial and industrial loans and lease financing by industry or CRE loans (real estate mortgage and real estate construction) by state or property type. Real estate 1-4 family mortgage loans to borrowers in the state of California represented approximately 12% of total loans at December 31, 2016, compared with 13% at December 31, 2015, of which 1% and 2% were PCI loans, respectively. These California loans are generally diversified among the larger metropolitan areas in California, with no single area consisting of more than 5% of total loans. We continuously monitor changes in real estate values and underlying economic or market conditions for all geographic areas of our real estate 1-4 family mortgage portfolio as part of our credit risk management process.

Some of our real estate 1-4 family first and junior lien mortgage loans include an interest-only feature as part of the loan terms. These interest-only loans were approximately 7% of total loans at December 31, 2016, and 9% at December 31, 2015. Substantially all of these interest-only loans at origination were considered to be prime or near prime. We do not offer option adjustable-rate mortgage (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. We acquired an option payment loan portfolio (Pick-a-Pay) from Wachovia at December 31, 2008. A majority of the portfolio was identified as PCI loans. Since the acquisition, we have reduced our exposure to the option payment portion of the portfolio through our modification efforts and loss mitigation actions. At December 31, 2016, approximately 1% of total loans remained with the payment option feature compared with 10% at December 31, 2008.

Our first and junior lien lines of credit products 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 total outstanding 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. At December 31, 2016, our lines of credit portfolio had an outstanding balance of $57.1 billion, of which $11.6 billion, or 20%, is in its amortization period, another $7.3 billion, or 13%, of our total outstanding balance, will reach their end of draw period during 2017 through 2018, $4.4 billion, or 8%, during 2019 through 2021, and $33.8 billion, or 59%, will convert in subsequent years. This portfolio had unfunded credit commitments of $65.9 billion at December 31, 2016. The lines that enter their amortization period may experience higher delinquencies and higher loss rates than the lines in their draw period. At December 31, 2016, $515 million, or 4%, of outstanding lines of credit that are in their amortization period were 30 or more days past due, compared with $718 million, or 2%, for lines in their draw 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.

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 primarily includes loans purchased and sales of whole loan or participating interests, whereby we receive or transfer a portion of a loan after origination. The table excludes PCI loans and loans recorded at fair value, 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

						Year ended December 31,
			2016			2015
(in millions)	**Commercial (1)**	**Consumer (2)**	**Total**	Commercial	Consumer (2)	Total
Purchases	**$ 32,710**	**5**	**32,715**	13,674	340	14,014
Sales	**(1,334)**	**(1,486)**	**(2,820)**	(1,214)	(160)	(1,374)
Transfers to MHFS/LHFS	**(306)**	**(6)**	**(312)**	(91)	(16)	(107)

(1) Purchases include loans and capital leases from the GE Capital business acquisitions as described in Note 2 (Business Combinations).
(2) 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. These temporary advance arrangements totaled approximately $77 billion at December 31, 2016 and $75 billion at December 31, 2015.

We issue commercial letters of credit to assist customers in purchasing goods or services, typically for international trade. At both December 31, 2016 and 2015, we had $1.1 billion 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 14 (Guarantees, Pledged Assets and Collateral) for additional information on standby letters of credit.

When we make commitments, we are exposed to credit risk. The maximum credit risk for these commitments will generally be lower than the contractual amount because a significant portion of these commitments are 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)	**Dec 31, 2016**	Dec 31, 2015
Commercial:		
Commercial and industrial	**$319,662**	296,710
Real estate mortgage	**7,833**	7,378
Real estate construction	**18,840**	18,047
Lease financing	**16**	—
Total commercial	**346,351**	322,135
Consumer:		
Real estate 1-4 family first mortgage	**33,498**	34,621
Real estate 1-4 family junior lien mortgage	**41,431**	43,309
Credit card	**101,895**	98,904
Other revolving credit and installment	**28,349**	27,899
Total consumer	**205,173**	204,733
Total unfunded credit commitments	**$551,524**	526,868

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

				Year ended December 31,	
(in millions)	**2016**	2015	2014	2013	2012
Balance, beginning of year	**$ 12,512**	13,169	14,971	17,477	19,668
Provision for credit losses	**3,770**	2,442	1,395	2,309	7,217
Interest income on certain impaired loans (1)	**(205)**	(198)	(211)	(264)	(315)
Loan charge-offs:					
Commercial:					
Commercial and industrial	**(1,419)**	(734)	(627)	(739)	(1,404)
Real estate mortgage	**(27)**	(59)	(66)	(190)	(382)
Real estate construction	**(1)**	(4)	(9)	(28)	(191)
Lease financing	**(41)**	(14)	(15)	(34)	(24)
Total commercial	**(1,488)**	(811)	(717)	(991)	(2,001)
Consumer:					
Real estate 1-4 family first mortgage	**(452)**	(507)	(721)	(1,439)	(3,020)
Real estate 1-4 family junior lien mortgage	**(495)**	(635)	(864)	(1,579)	(3,437)
Credit card	**(1,259)**	(1,116)	(1,025)	(1,022)	(1,105)
Automobile	**(845)**	(742)	(729)	(625)	(651)
Other revolving credit and installment	**(708)**	(643)	(668)	(754)	(759)
Total consumer	**(3,759)**	(3,643)	(4,007)	(5,419)	(8,972)
Total loan charge-offs	**(5,247)**	(4,454)	(4,724)	(6,410)	(10,973)
Loan recoveries:					
Commercial:					
Commercial and industrial	**263**	252	369	396	472
Real estate mortgage	**116**	127	160	226	163
Real estate construction	**38**	37	136	137	124
Lease financing	**11**	8	8	17	20
Total commercial	**428**	424	673	776	779
Consumer:					
Real estate 1-4 family first mortgage	**373**	245	212	246	157
Real estate 1-4 family junior lien mortgage	**266**	259	238	269	260
Credit card	**207**	175	161	127	188
Automobile	**325**	325	349	322	364
Other revolving credit and installment	**128**	134	146	161	191
Total consumer	**1,299**	1,138	1,106	1,125	1,160
Total loan recoveries	**1,727**	1,562	1,779	1,901	1,939
Net loan charge-offs	**(3,520)**	(2,892)	(2,945)	(4,509)	(9,034)
Other	**(17)**	(9)	(41)	(42)	(59)
Balance, end of year	**$ 12,540**	12,512	13,169	14,971	17,477
Components:					
Allowance for loan losses	**$ 11,419**	11,545	12,319	14,502	17,060
Allowance for unfunded credit commitments	**1,121**	967	850	469	417
Allowance for credit losses	**$ 12,540**	12,512	13,169	14,971	17,477
Net loan charge-offs as a percentage of average total loans	**0.37%**	0.33	0.35	0.56	1.17
Allowance for loan losses as a percentage of total loans	**1.18**	1.26	1.43	1.76	2.13
Allowance for credit losses as a percentage of total loans	**1.30**	1.37	1.53	1.82	2.19

(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

	Year ended December 31,					
			2016			2015
(in millions)	**Commercial**	**Consumer**	**Total**	Commercial	Consumer	Total
Balance, beginning of year	**$ 6,872**	**5,640**	**12,512**	6,377	6,792	13,169
Provision for credit losses	**1,644**	**2,126**	**3,770**	908	1,534	2,442
Interest income on certain impaired loans	**(45)**	**(160)**	**(205)**	(17)	(181)	(198)
Loan charge-offs	**(1,488)**	**(3,759)**	**(5,247)**	(811)	(3,643)	(4,454)
Loan recoveries	**428**	**1,299**	**1,727**	424	1,138	1,562
Net loan charge-offs	**(1,060)**	**(2,460)**	**(3,520)**	(387)	(2,505)	(2,892)
Other	**(17)**	**—**	**(17)**	(9)	—	(9)
Balance, end of year	**$ 7,394**	**5,146**	**12,540**	6,872	5,640	12,512

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

Table 6.7: Allowance by Impairment Methodology

	Allowance for credit losses			Recorded investment in loans		
(in millions)	Commercial	Consumer	Total	Commercial	Consumer	Total
December 31, 2016						
Collectively evaluated (1)	**$ 6,392**	**3,553**	**9,945**	**500,487**	**428,009**	**928,496**
Individually evaluated (2)	**1,000**	**1,593**	**2,593**	**5,372**	**17,005**	**22,377**
PCI (3)	**2**	**—**	**2**	**677**	**16,054**	**16,731**
Total	**$ 7,394**	**5,146**	**12,540**	**506,536**	**461,068**	**967,604**
December 31, 2015						
Collectively evaluated (1)	$ 5,999	3,436	9,435	452,063	420,705	872,768
Individually evaluated (2)	872	2,204	3,076	3,808	20,012	23,820
PCI (3)	1	—	1	712	19,259	19,971
Total	$ 6,872	5,640	12,512	456,583	459,976	916,559

(1) Represents loans collectively evaluated for impairment in accordance with Accounting Standards Codification (ASC) 450-20, *Loss Contingencies* (formerly FAS 5), and pursuant to amendments by ASU 2010-20 regarding allowance for non-impaired loans.
(2) Represents loans individually evaluated for impairment in accordance with ASC 310-10, *Receivables* (formerly FAS 114), and pursuant to amendments by ASU 2010-20 regarding allowance for impaired loans.
(3) Represents the allowance and related loan carrying value determined in accordance with ASC 310-30, *Receivables – Loans and Debt Securities Acquired with Deteriorated Credit Quality* (formerly SOP 3-3) 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 September 30, 2016. See the "Purchased Credit-Impaired Loans" section in this Note for credit quality information on our PCI portfolio.

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 $22.4 billion in criticized commercial and industrial loans and $5.8 billion in criticized commercial real estate (CRE) loans at December 31, 2016, $3.2 billion and $728 million, respectively, have been placed on nonaccrual status and written down to net realizable collateral value.

Table 6.8: Commercial Loans by Risk Category

(in millions)		Commercial and industrial	Real estate mortgage	Real estate construction	Lease financing	Total
December 31, 2016						
By risk category:						
Pass	**$**	**308,166**	**126,793**	**23,408**	**17,899**	**476,266**
Criticized		**22,437**	**5,315**	**451**	**1,390**	**29,593**
Total commercial loans (excluding PCI)		**330,603**	**132,108**	**23,859**	**19,289**	**505,859**
Total commercial PCI loans (carrying value)		**237**	**383**	**57**	**—**	**677**
Total commercial loans	**$**	**330,840**	**132,491**	**23,916**	**19,289**	**506,536**
December 31, 2015						
By risk category:						
Pass	$	281,356	115,025	21,546	11,772	429,699
Criticized		18,458	6,593	526	595	26,172
Total commercial loans (excluding PCI)		299,814	121,618	22,072	12,367	455,871
Total commercial PCI loans (carrying value)		78	542	92	—	712
Total commercial loans	$	299,892	122,160	22,164	12,367	456,583

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
December 31, 2016						
By delinquency status:						
Current-29 days past due (DPD) and still accruing	**$**	**326,765**	**131,165**	**23,776**	**19,042**	**500,748**
30-89 DPD and still accruing		**594**	**222**	**40**	**132**	**988**
90+ DPD and still accruing		**28**	**36**	**—**	**—**	**64**
Nonaccrual loans		**3,216**	**685**	**43**	**115**	**4,059**
Total commercial loans (excluding PCI)		**330,603**	**132,108**	**23,859**	**19,289**	**505,859**
Total commercial PCI loans (carrying value)		**237**	**383**	**57**	**—**	**677**
Total commercial loans	**$**	**330,840**	**132,491**	**23,916**	**19,289**	**506,536**
December 31, 2015						
By delinquency status:						
Current-29 DPD and still accruing	$	297,847	120,415	21,920	12,313	452,495
30-89 DPD and still accruing		507	221	82	28	838
90+ DPD and still accruing		97	13	4	—	114
Nonaccrual loans		1,363	969	66	26	2,424
Total commercial loans (excluding PCI)		299,814	121,618	22,072	12,367	455,871
Total commercial PCI loans (carrying value)		78	542	92	—	712
Total commercial loans	$	299,892	122,160	22,164	12,367	456,583

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
December 31, 2016						
By delinquency status:						
Current-29 DPD	**$ 239,061**	**45,238**	**35,773**	**60,572**	**39,833**	**420,477**
30-59 DPD	**1,904**	**296**	**275**	**1,262**	**177**	**3,914**
60-89 DPD	**700**	**160**	**200**	**330**	**111**	**1,501**
90-119 DPD	**307**	**102**	**169**	**116**	**93**	**787**
120-179 DPD	**323**	**108**	**279**	**5**	**30**	**745**
180+ DPD	**1,661**	**297**	**4**	**1**	**22**	**1,985**
Government insured/guaranteed loans (1)	**15,605**	**—**	**—**	**—**	**—**	**15,605**
Total consumer loans (excluding PCI)	**259,561**	**46,201**	**36,700**	**62,286**	**40,266**	**445,014**
Total consumer PCI loans (carrying value)	**16,018**	**36**	**—**	**—**	**—**	**16,054**
Total consumer loans	**$ 275,579**	**46,237**	**36,700**	**62,286**	**40,266**	**461,068**
December 31, 2015						
By delinquency status:						
Current-29 DPD	$ 225,195	51,778	33,208	58,503	38,690	407,374
30-59 DPD	2,072	325	257	1,121	175	3,950
60-89 DPD	821	184	177	253	107	1,542
90-119 DPD	402	110	150	84	86	832
120-179 DPD	460	145	246	4	21	876
180+ DPD	3,376	393	1	1	19	3,790
Government insured/guaranteed loans (1)	22,353	—	—	—	—	22,353
Total consumer loans (excluding PCI)	254,679	52,935	34,039	59,966	39,098	440,717
Total consumer PCI loans (carrying value)	19,190	69	—	—	—	19,259
Total consumer loans	$ 273,869	53,004	34,039	59,966	39,098	459,976

(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 $10.1 billion at December 31, 2016, compared with $12.4 billion at December 31, 2015.

Of the $3.5 billion of consumer loans not government insured/guaranteed that are 90 days or more past due at December 31, 2016, $908 million was accruing, compared with $5.5 billion past due and $867 million accruing at December 31, 2015.

Real estate 1-4 family first mortgage loans 180 days or more past due totaled $1.7 billion, or 0.6% of total first mortgages (excluding PCI), at December 31, 2016, compared with $3.4 billion, or 1.3%, at December 31, 2015.

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 security-based loans originated through retail brokerage, and totaled $8.0 billion at December 31, 2016, and $7.0 billion at December 31, 2015.

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
December 31, 2016						
By FICO:						
< 600	**$ 6,720**	**2,591**	**3,475**	**9,934**	**976**	**23,696**
600-639	**5,400**	**1,917**	**3,109**	**6,705**	**1,056**	**18,187**
640-679	**10,975**	**3,747**	**5,678**	**10,204**	**2,333**	**32,937**
680-719	**23,300**	**6,432**	**7,382**	**11,233**	**4,302**	**52,649**
720-759	**38,832**	**9,413**	**7,632**	**8,769**	**5,869**	**70,515**
760-799	**103,608**	**14,929**	**6,191**	**8,164**	**8,348**	**141,240**
800+	**49,508**	**6,391**	**2,868**	**6,856**	**6,434**	**72,057**
No FICO available	**5,613**	**781**	**365**	**421**	**2,906**	**10,086**
FICO not required	**—**	**—**	**—**	**—**	**8,042**	**8,042**
Government insured/guaranteed loans (1)	**15,605**	**—**	**—**	**—**	**—**	**15,605**
Total consumer loans (excluding PCI)	**259,561**	**46,201**	**36,700**	**62,286**	**40,266**	**445,014**
Total consumer PCI loans (carrying value)	**16,018**	**36**	**—**	**—**	**—**	**16,054**
Total consumer loans	**$ 275,579**	**46,237**	**36,700**	**62,286**	**40,266**	**461,068**
December 31, 2015						
By FICO:						
< 600	$ 8,716	3,025	2,927	9,260	965	24,893
600-639	6,961	2,367	2,875	6,619	1,086	19,908
640-679	13,006	4,613	5,354	10,014	2,416	35,403
680-719	24,460	7,863	6,857	10,947	4,388	54,515
720-759	38,309	10,966	7,017	8,279	6,010	70,581
760-799	92,975	16,369	5,693	7,761	8,351	131,149
800+	44,452	6,895	3,090	6,654	6,510	67,601
No FICO available	3,447	837	226	432	2,395	7,337
FICO not required	—	—	—	—	6,977	6,977
Government insured/guaranteed loans (1)	22,353	—	—	—	—	22,353
Total consumer loans (excluding PCI)	254,679	52,935	34,039	59,966	39,098	440,717
Total consumer PCI loans (carrying value)	19,190	69	—	—	—	19,259
Total consumer loans	$ 273,869	53,004	34,039	59,966	39,098	459,976

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

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

Table 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

	December 31, 2016			December 31, 2015		
(in millions)	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%	$ 121,430	16,464	137,894	109,558	15,805	125,363
60.01-80%	101,726	15,262	116,988	92,005	16,579	108,584
80.01-100%	15,795	8,765	24,560	22,765	11,385	34,150
100.01-120% (1)	2,644	3,589	6,233	4,480	5,545	10,025
> 120% (1)	1,066	1,613	2,679	2,065	3,051	5,116
No LTV/CLTV available	1,295	508	1,803	1,453	570	2,023
Government insured/guaranteed loans (2)	15,605	—	15,605	22,353	—	22,353
Total consumer loans (excluding PCI)	259,561	46,201	305,762	254,679	52,935	307,614
Total consumer PCI loans (carrying value)	16,018	36	16,054	19,190	69	19,259
Total consumer loans	$ 275,579	46,237	321,816	273,869	53,004	326,873

(1) Reflects total loan balances with LTV/CLTV amounts in excess of 100%. In the event of default, the loss content would generally be limited to only the amount in excess of 100% LTV/CLTV.
(2) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.

NONACCRUAL LOANS Table 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

	December 31,	
(in millions)	2016	2015
Commercial:		
Commercial and industrial	$ 3,216	1,363
Real estate mortgage	685	969
Real estate construction	43	66
Lease financing	115	26
Total commercial	4,059	2,424
Consumer:		
Real estate 1-4 family first mortgage (1)	4,962	7,293
Real estate 1-4 family junior lien mortgage	1,206	1,495
Automobile	106	121
Other revolving credit and installment	51	49
Total consumer	6,325	8,958
Total nonaccrual loans (excluding PCI)	$ 10,384	11,382

(1) Includes MHFS of $149 million and $177 million at December 31, 2016 and 2015, respectively.

LOANS IN PROCESS OF FORECLOSURE Our recorded investment in consumer mortgage loans collateralized by residential real estate property that are in process of foreclosure was $8.1 billion and $11.0 billion at December 31, 2016 and 2015, respectively, which included $4.8 billion and $6.2 billion, respectively, of loans that are government insured/guaranteed. We commence the foreclosure process on consumer real estate loans when a borrower becomes 120 days delinquent in accordance with Consumer Finance Protection Bureau Guidelines. Foreclosure procedures and timelines vary depending on whether the property address resides in a judicial or non-judicial state. Judicial states require the foreclosure to be processed through the state's courts while non-judicial states are processed without court intervention. Foreclosure timelines vary according to state law.

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 $2.0 billion at December 31, 2016, and $2.9 billion at December 31, 2015, are not included in these past due and still accruing loans even though they are 90 days or more contractually past due. These PCI loans are considered to be accruing because they continue to earn interest from accretable yield, independent of performance in accordance with their contractual terms.

Table 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

(in millions)	**Dec 31, 2016**	Dec 31, 2015
Total (excluding PCI):	**$ 11,858**	14,380
Less: FHA insured/guaranteed by the VA (1)(2)	**10,883**	13,373
Less: Student loans guaranteed under the FFELP (3)	**3**	26
Total, not government insured/guaranteed	**$ 972**	981
By segment and class, not government insured/guaranteed:		
Commercial:		
Commercial and industrial	**$ 28**	97
Real estate mortgage	**36**	13
Real estate construction	**—**	4
Total commercial	**64**	114
Consumer:		
Real estate 1-4 family first mortgage (2)	**175**	224
Real estate 1-4 family junior lien mortgage (2)	**56**	65
Credit card	**452**	397
Automobile	**112**	79
Other revolving credit and installment	**113**	102
Total consumer	**908**	867
Total, not government insured/guaranteed	**$ 972**	981

(1) Represents loans whose repayments are predominantly insured by the FHA or guaranteed by the VA.
(2) Includes mortgage loans held for sale 90 days or more past due and still accruing.
(3) Represents loans whose repayments are largely guaranteed by agencies on behalf of the U.S. Department of Education under the FFELP.

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 $299 million at December 31, 2016, and $402 million at December 31, 2015.

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

Table 6.15: Impaired Loans Summary

		Recorded investment		
(in millions)	Unpaid principal balance (1)	Impaired loans	Impaired loans with related allowance for credit losses	Related allowance for credit losses
December 31, 2016				
Commercial:				
Commercial and industrial	**$ 5,058**	**3,742**	**3,418**	**675**
Real estate mortgage	**1,777**	**1,418**	**1,396**	**280**
Real estate construction	**167**	**93**	**93**	**22**
Lease financing	**146**	**119**	**119**	**23**
Total commercial	**7,148**	**5,372**	**5,026**	**1,000**
Consumer:				
Real estate 1-4 family first mortgage	**16,438**	**14,362**	**9,475**	**1,117**
Real estate 1-4 family junior lien mortgage	**2,399**	**2,156**	**1,681**	**350**
Credit card	**300**	**300**	**300**	**104**
Automobile	**153**	**85**	**31**	**5**
Other revolving credit and installment	**109**	**102**	**91**	**17**
Total consumer (2)	**19,399**	**17,005**	**11,578**	**1,593**
Total impaired loans (excluding PCI)	**$ 26,547**	**22,377**	**16,604**	**2,593**
December 31, 2015				
Commercial:				
Commercial and industrial	$ 2,746	1,835	1,648	435
Real estate mortgage	2,369	1,815	1,773	405
Real estate construction	262	131	112	23
Lease financing	38	27	27	9
Total commercial	5,415	3,808	3,560	872
Consumer:				
Real estate 1-4 family first mortgage	19,626	17,121	11,057	1,643
Real estate 1-4 family junior lien mortgage	2,704	2,408	1,859	447
Credit card	299	299	299	94
Automobile	173	105	41	5
Other revolving credit and installment	86	79	71	15
Total consumer (2)	22,888	20,012	13,327	2,204
Total impaired loans (excluding PCI)	$ 28,303	23,820	16,887	3,076

(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 $1.5 billion and $1.8 billion at December 31, 2016 and 2015, respectively, of government insured/guaranteed loans that are predominantly insured by the FHA or guaranteed by the VA and generally do not have an allowance. Impaired loans may also have limited, if any, allowance when the recorded investment of the loan approximates estimated net realizable value as a result of charge-offs prior to a TDR modification.

Commitments to lend additional funds on loans whose terms have been modified in a TDR amounted to $403 million and $363 million at December 31, 2016 and 2015, 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

						Year ended December 31,
		2016		2015		2014
(in millions)	**Average recorded investment**	**Recognized interest income**	Average recorded investment	Recognized interest income	Average recorded investment	Recognized interest income
Commercial:						
Commercial and industrial	**$ 3,408**	**101**	1,240	80	1,089	77
Real estate mortgage	**1,636**	**128**	2,128	140	2,924	150
Real estate construction	**115**	**11**	246	25	457	39
Lease financing	**88**	**—**	26	—	28	—
Total commercial	**5,247**	**240**	3,640	245	4,498	266
Consumer:						
Real estate 1-4 family first mortgage	**15,857**	**828**	17,924	921	19,086	934
Real estate 1-4 family junior lien mortgage	**2,294**	**132**	2,480	137	2,547	142
Credit card	**295**	**34**	317	39	381	46
Automobile	**93**	**11**	115	13	154	18
Other revolving credit and installment	**89**	**6**	61	5	39	4
Total consumer	**18,628**	**1,011**	20,897	1,115	22,207	1,144
Total impaired loans (excluding PCI)	**$ 23,875**	**1,251**	24,537	1,360	26,705	1,410
Interest income:						
Cash basis of accounting		**$ 353**		412		435
Other (1)		**898**		948		975
Total interest income		**$ 1,251**		1,360		1,410

(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 $20.8 billion and $22.7 billion at December 31, 2016 and 2015, 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)	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)
	Primary modification type (1)				Financial effects of modifications		
Year ended December 31, 2016							
Commercial:							
Commercial and industrial	**$ 42**	**130**	**3,154**	**3,326**	**360**	**1.91**	**$ 130**
Real estate mortgage	**2**	**105**	**560**	**667**	**1**	**1.15**	**105**
Real estate construction	**—**	**27**	**72**	**99**	**—**	**1.02**	**27**
Lease financing	**—**	**—**	**8**	**8**	**—**	**—**	**—**
Total commercial	**44**	**262**	**3,794**	**4,100**	**361**	**1.51**	**262**
Consumer:							
Real estate 1-4 family first mortgage	**338**	**288**	**1,411**	**2,037**	**49**	**2.69**	**507**
Real estate 1-4 family junior lien mortgage	**23**	**109**	**106**	**238**	**37**	**3.07**	**130**
Credit card	**—**	**180**	**—**	**180**	**—**	**12.09**	**180**
Automobile	**2**	**16**	**57**	**75**	**36**	**6.07**	**16**
Other revolving credit and installment	**1**	**33**	**10**	**44**	**2**	**6.83**	**33**
Trial modifications (6)	**—**	**—**	**44**	**44**	**—**	**—**	**—**
Total consumer	**364**	**626**	**1,628**	**2,618**	**124**	**4.92**	**866**
Total	**$ 408**	**888**	**5,422**	**6,718**	**485**	**4.13 %**	**$ 1,128**
Year ended December 31, 2015							
Commercial:							
Commercial and industrial	$ 10	33	1,806	1,849	62	1.11 %	$ 33
Real estate mortgage	14	133	904	1,051	1	1.47	133
Real estate construction	11	15	72	98	—	0.95	15
Lease financing	—	—	—	—	—	—	—
Total commercial	35	181	2,782	2,998	63	1.36	181
Consumer:							
Real estate 1-4 family first mortgage	400	339	1,892	2,631	53	2.50	656
Real estate 1-4 family junior lien mortgage	34	99	172	305	43	3.09	127
Credit card	—	166	—	166	—	11.44	166
Automobile	1	5	87	93	38	8.28	5
Other revolving credit and installment	—	27	8	35	1	5.94	27
Trial modifications (6)	—	—	44	44	—	—	—
Total consumer	435	636	2,203	3,274	135	4.21	981
Total	$ 470	817	4,985	6,272	198	3.77 %	$ 1,162
Year ended December 31, 2014							
Commercial:							
Commercial and industrial	$ 4	51	914	969	36	1.53 %	$ 51
Real estate mortgage	7	182	929	1,118	—	1.21	182
Real estate construction	—	10	270	280	—	2.12	10
Lease financing	—	—	—	—	—	—	—
Total commercial	11	243	2,113	2,367	36	1.32	243
Consumer:							
Real estate 1-4 family first mortgage	571	401	2,690	3,662	92	2.50	833
Real estate 1-4 family junior lien mortgage	50	114	246	410	64	3.27	157
Credit card	—	155	—	155	—	11.40	155
Automobile	2	5	85	92	36	8.56	5
Other revolving credit and installment	—	12	16	28	—	5.26	12
Trial modifications (6)	—	—	(74)	(74)	—	—	—
Total consumer	623	687	2,963	4,273	192	3.84	1,162
Total	$ 634	930	5,076	6,640	228	3.41 %	$ 1,405

(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 $1.6 billion, $2.1 billion and $2.1 billion, for the years ended December 31, 2016, 2015, and 2014, 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 $67 million, $100 million and $149 million for the years ended December 31, 2016, 2015, and 2014, respectively.

(5) Reflects the effect of reduced interest rates on loans with an interest rate concession as one of their concession types, which includes loans reported as a principal 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.

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

	Recorded investment of defaults		
	Year ended December 31,		
(in millions)	**2016**	2015	2014
Commercial:			
Commercial and industrial	**$ 124**	66	62
Real estate mortgage	**66**	104	117
Real estate construction	**3**	4	4
Total commercial	**193**	174	183
Consumer:			
Real estate 1-4 family first mortgage	**138**	187	334
Real estate 1-4 family junior lien mortgage	**20**	17	29
Credit card	**56**	52	51
Automobile	**13**	13	14
Other revolving credit and installment	**4**	3	2
Total consumer	**231**	272	430
Total	**$ 424**	446	613

Purchased Credit-Impaired Loans

Substantially all of our PCI loans were acquired from Wachovia on December 31, 2008, at which time we acquired commercial and consumer loans with a carrying value of $18.7 billion and $40.1 billion, respectively. The unpaid principal balance on December 31, 2008 was $98.2 billion for the total of commercial and consumer PCI loans. Table 6.19 presents PCI loans net of any remaining purchase accounting adjustments. Commercial and industrial PCI loans at December 31, 2016, included $172 million from the GE Capital business acquisitions. Real estate 1-4 family first mortgage PCI loans are predominantly Pick-a-Pay loans.

Table 6.19: PCI Loans

(in millions)	**Dec 31, 2016**	Dec 31, 2015
Commercial:		
Commercial and industrial	**$ 237**	78
Real estate mortgage	**383**	542
Real estate construction	**57**	92
Total commercial	**677**	712
Consumer:		
Real estate 1-4 family first mortgage	**16,018**	19,190
Real estate 1-4 family junior lien mortgage	**36**	69
Total consumer	**16,054**	19,259
Total PCI loans (carrying value)	**$ 16,731**	19,971
Total PCI loans (unpaid principal balance)	**$ 24,136**	28,278

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

- changes in interest rate indices for variable rate PCI loans – expected future cash flows are based on the variable rates in effect at the time of the regular evaluations of cash flows expected to be collected;
- changes in prepayment assumptions – prepayments affect the estimated life of PCI loans which may change the amount of interest income, and possibly principal, expected to be collected; and
- changes in the expected principal and interest payments over the estimated life – updates to expected cash flows are driven by the credit outlook and actions taken with borrowers. Changes in expected future cash flows from loan modifications are included in the regular evaluations of cash flows expected to be collected.

The change in the accretable yield related to PCI loans since the merger with Wachovia is presented in Table 6.20. Changes during third quarter 2016 reflected an expectation, as a result of our quarterly evaluation of PCI cash flows, that prepayment of modified Pick-a-Pay loans will significantly increase over their estimated weighted-average life and that expected loss has decreased as a result of reduced loan to value ratios and sustained higher housing prices.

Table 6.20: Change in Accretable Yield

(in millions)	2016	2015	2014	2009-2013
Total, beginning of period	$ 16,301	17,790	17,392	10,447
Addition of accretable yield due to acquisitions	27	—	—	132
Accretion into interest income (1)	(1,365)	(1,429)	(1,599)	(11,184)
Accretion into noninterest income due to sales (2)	(9)	(28)	(37)	(393)
Reclassification from nonaccretable difference for loans with improving credit-related cash flows	1,221	1,166	2,243	6,325
Changes in expected cash flows that do not affect nonaccretable difference (3)	(4,959)	(1,198)	(209)	12,065
Total, end of period	$ 11,216	16,301	17,790	17,392

(1) Includes accretable yield released as a result of settlements with borrowers, which is included in interest income.
(2) Includes accretable yield released as a result of sales to third parties, which is included in noninterest income.
(3) Represents changes in cash flows expected to be collected due to the impact of modifications, changes in prepayment assumptions, changes in interest rates on variable rate PCI loans and sales to third parties.

COMMERCIAL PCI CREDIT QUALITY INDICATORS
Table 6.21 provides a breakdown of commercial PCI loans by risk category.

Table 6.21: Commercial PCI Loans by Risk Category

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Total
December 31, 2016				
By risk category:				
Pass	**$ 92**	**263**	**47**	**402**
Criticized	**145**	**120**	**10**	**275**
Total commercial PCI loans	**$ 237**	**383**	**57**	**677**
December 31, 2015				
By risk category:				
Pass	$ 35	298	68	401
Criticized	43	244	24	311
Total commercial PCI loans	$ 78	542	92	712

Table 6.22 provides past due information for commercial PCI loans.

Table 6.22: Commercial PCI Loans by Delinquency Status

(in millions)	Commercial and industrial	Real estate mortgage	Real estate construction	Total
December 31, 2016				
By delinquency status:				
Current-29 DPD and still accruing	**$ 235**	**353**	**48**	**636**
30-89 DPD and still accruing	**2**	**10**	**—**	**12**
90+ DPD and still accruing	**—**	**20**	**9**	**29**
Total commercial PCI loans	**$ 237**	**383**	**57**	**677**
December 31, 2015				
By delinquency status:				
Current-29 DPD and still accruing	$ 78	510	90	678
30-89 DPD and still accruing	—	2	—	2
90+ DPD and still accruing	—	30	2	32
Total commercial PCI loans	$ 78	542	92	712

CONSUMER PCI CREDIT QUALITY INDICATORS Our consumer PCI loans were aggregated into several pools of loans at acquisition. Below, we have provided credit quality indicators based on the unpaid principal balance (adjusted for write-downs) of the individual loans included in the pool, but we have not allocated the remaining purchase accounting adjustments, which were established at a pool level. Table 6.23 provides the delinquency status of consumer PCI loans.

Table 6.23: Consumer PCI Loans by Delinquency Status

	December 31, 2016			December 31, 2015		
(in millions)	**Real estate 1-4 family first mortgage**	**Real estate 1-4 family junior lien mortgage**	**Total**	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total
By delinquency status:						
Current-29 DPD and still accruing	**$ 16,095**	**171**	**16,266**	18,086	202	18,288
30-59 DPD and still accruing	**1,488**	**7**	**1,495**	1,686	7	1,693
60-89 DPD and still accruing	**668**	**2**	**670**	716	3	719
90-119 DPD and still accruing	**233**	**2**	**235**	293	2	295
120-179 DPD and still accruing	**238**	**2**	**240**	319	3	322
180+ DPD and still accruing	**2,081**	**8**	**2,089**	3,035	12	3,047
Total consumer PCI loans (adjusted unpaid principal balance)	**$ 20,803**	**192**	**20,995**	24,135	229	24,364
Total consumer PCI loans (carrying value)	**$ 16,018**	**36**	**16,054**	19,190	69	19,259

Table 6.24 provides FICO scores for consumer PCI loans.

Table 6.24: Consumer PCI Loans by FICO

	December 31, 2016			December 31, 2015		
(in millions)	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total	Real estate 1-4 family first mortgage	Real estate 1-4 family junior lien mortgage	Total
By FICO:						
< 600	$ 4,292	46	4,338	5,737	52	5,789
600-639	3,001	26	3,027	4,754	38	4,792
640-679	3,972	35	4,007	6,208	48	6,256
680-719	3,170	37	3,207	4,283	43	4,326
720-759	1,767	24	1,791	1,914	24	1,938
760-799	962	15	977	910	13	923
800+	254	4	258	241	3	244
No FICO available	3,385	5	3,390	88	8	96
Total consumer PCI loans (adjusted unpaid principal balance)	$ 20,803	192	20,995	24,135	229	24,364
Total consumer PCI loans (carrying value)	$ 16,018	36	16,054	19,190	69	19,259

Table 6.25 shows the distribution of consumer PCI loans by LTV for real estate 1-4 family first mortgages and by CLTV for real estate 1-4 family junior lien mortgages.

Table 6.25: Consumer PCI Loans by LTV/CLTV

	December 31, 2016			December 31, 2015		
(in millions)	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total	Real estate 1-4 family first mortgage by LTV	Real estate 1-4 family junior lien mortgage by CLTV	Total
By LTV/CLTV:						
0-60%	$ 7,513	38	7,551	5,437	32	5,469
60.01-80%	9,000	76	9,076	10,036	65	10,101
80.01-100%	3,458	54	3,512	6,299	80	6,379
100.01-120% (1)	669	18	687	1,779	36	1,815
> 120% (1)	161	5	166	579	15	594
No LTV/CLTV available	2	1	3	5	1	6
Total consumer PCI loans (adjusted unpaid principal balance)	$ 20,803	192	20,995	24,135	229	24,364
Total consumer PCI loans (carrying value)	$ 16,018	36	16,054	19,190	69	19,259

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

Note 7: Premises, Equipment, Lease Commitments and Other Assets

Table 7.1: Premises and Equipment

(in millions)		Dec 31, 2016	Dec 31, 2015
Land	$	1,726	1,743
Buildings		8,584	8,479
Furniture and equipment		6,606	7,289
Leasehold improvements		2,199	2,131
Premises and equipment leased under capital leases		70	79
Total premises and equipment		19,185	19,721
Less: Accumulated depreciation and amortization		10,852	11,017
Net book value, premises and equipment	$	8,333	8,704

Depreciation and amortization expense for premises and equipment was $1.2 billion for the years 2016, 2015 and 2014.

Dispositions of premises and equipment resulted in net gains of $44 million, $75 million and $28 million in 2016, 2015 and 2014, respectively, included in other noninterest expense.

We have obligations under a number of noncancelable operating leases for premises and equipment. The leases predominantly expire over the next fifteen years, with the longest expiring in 2105, and many provide for periodic adjustment of rentals based on changes in various economic indicators. Some leases also include a renewal option. Table 7.2 provides the future minimum payments under capital leases and noncancelable operating leases, net of sublease income, with terms greater than one year as of December 31, 2016.

Table 7.2: Minimum Lease Payments

(in millions)		Operating leases		Capital leases
Year ended December 31,				
2017	$	1,195		3
2018		1,095		3
2019		968		3
2020		813		3
2021		624		2
Thereafter		2,174		3
Total minimum lease payments	$	6,869		17
Executory costs			$	(7)
Amounts representing interest				(3)
Present value of net minimum lease payments			$	7

Total minimum lease payments for operating leases above are net of $495 million of noncancelable sublease income. Operating lease rental expense (predominantly for premises) was $1.3 billion for the years 2016, 2015 and 2014, net of sublease income of $86 million, $103 million and $137 million for the same years, respectively.

Table 7.3 presents the components of other assets.

Table 7.3: Other Assets

(in millions)		Dec 31, 2016	Dec 31, 2015
Nonmarketable equity investments:			
Cost method:			
Federal bank stock	$	6,407	4,814
Private equity		1,465	1,626
Auction rate securities		525	595
Total cost method		8,397	7,035
Equity method:			
LIHTC (1)		9,714	8,314
Private equity		3,635	3,300
Tax-advantaged renewable energy		2,054	1,625
New market tax credit and other		305	408
Total equity method		15,708	13,647
Fair value (2)		3,275	3,065
Total nonmarketable equity investments		27,380	23,747
Corporate/bank-owned life insurance		19,325	19,199
Accounts receivable (3)		31,056	26,251
Interest receivable		5,339	5,065
Core deposit intangibles		1,620	2,539
Customer relationship and other amortized intangibles		1,089	614
Foreclosed assets:			
Residential real estate:			
Government insured/guaranteed (3)		197	446
Non-government insured/guaranteed		378	414
Non-residential real estate		403	565
Operating lease assets		10,089	3,782
Due from customers on acceptances		196	273
Other (4)		17,469	12,618
Total other assets	$	114,541	95,513

(1) Represents low income housing tax credit investments.
(2) Represents nonmarketable equity investments for which we have elected the fair value option. See Note 17 (Fair Values of Assets and Liabilities) for additional information.
(3) Certain government-guaranteed residential real estate mortgage loans upon foreclosure are included in Accounts receivable. Both principal and interest related to these foreclosed real estate assets are collectible because the loans were predominantly insured by the FHA or guaranteed by the VA. For more information on the classification of certain government-guaranteed mortgage loans upon foreclosure, see Note 1 (Summary of Significant Accounting Policies).
(4) Prior period has been revised to conform to the current period presentation of reporting derivative assets separate from other assets. See Note 1 (Summary of Significant Accounting Policies) for additional information.

Table 7.4 presents income (expense) related to nonmarketable equity investments.

Table 7.4: Nonmarketable Equity Investments

		Year ended December 31,	
(in millions)	**2016**	2015	2014
Net realized gains from nonmarketable equity investments	**$ 579**	1,659	1,479
All other	**(508)**	(743)	(741)
Total	**$ 71**	916	738

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

Total LIHTC investments were $9.7 billion and $8.3 billion at December 31, 2016 and 2015, respectively. In 2016, we recognized pre-tax losses of $816 million related to our LIHTC investments, compared with $708 million in 2015. We also recognized total tax benefits of $1.2 billion in 2016, which included tax credits recorded in income taxes of $939 million. In 2015, total tax benefits were $1.1 billion, which included tax credits of $829 million. We are periodically required to provide financial support during the investment period. Our liability for these unfunded commitments was $3.6 billion and $3.0 billion at December 31, 2016 and 2015, respectively. Predominantly all of this liability is expected to be paid over the next three years. This liability is included in long-term debt.

Note 8: Securitizations and Variable Interest Entities

Involvement with SPEs

In the normal course of business, we enter into various types of on- and off-balance sheet transactions with SPEs, which are corporations, trusts, limited liability companies or partnerships that are established for a limited purpose. Generally, SPEs are formed in connection with securitization transactions. In a securitization transaction, assets are transferred to an SPE, which then issues to investors various forms of interests in those assets and may also enter into derivative transactions. In a securitization transaction where we transferred assets from our balance sheet, we typically receive cash and/or other interests in an SPE as proceeds for the assets we transfer. Also, in certain transactions, we may retain the right to service the transferred receivables and to repurchase those receivables from the SPE if the outstanding balance of the receivables falls to a level where the cost exceeds the benefits of servicing such receivables. In addition, we may purchase the right to service loans in an SPE that were transferred to the SPE by a third party.

In connection with our securitization activities, we have various forms of ongoing involvement with SPEs, which may include:

- underwriting securities issued by SPEs and subsequently making markets in those securities;
- providing liquidity facilities to support short-term obligations of SPEs issued to third party investors;
- providing credit enhancement on securities issued by SPEs or market value guarantees of assets held by SPEs through the use of letters of credit, financial guarantees, credit default swaps and total return swaps;
- entering into other derivative contracts with SPEs;
- holding senior or subordinated interests in SPEs;
- acting as servicer or investment manager for SPEs; and
- providing administrative or trustee services to SPEs.

SPEs formed in connection with securitization transactions are generally considered variable interest entities (VIEs). SPEs formed for other corporate purposes may be VIEs as well. A VIE is an entity that has either a total equity investment that is insufficient to finance its activities without additional subordinated financial support or whose equity investors lack the ability to control the entity's activities or lack the ability to receive expected benefits or absorb obligations in a manner that's consistent with their investment in the entity. A VIE is consolidated by its primary beneficiary, the party that has both the power to direct the activities that most significantly impact the VIE and a variable interest that could potentially be significant to the VIE. A variable interest is a contractual, ownership or other interest whose value changes with changes in the fair value of the VIE's net assets. To determine whether or not a variable interest we hold could potentially be significant to the VIE, we consider both qualitative and quantitative factors regarding the nature, size and form of our involvement with the VIE. We assess whether or not we are the primary beneficiary of a VIE on an on-going basis.

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

Table 8.1: 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
December 31, 2016				
Cash	$ —	168	—	168
Federal funds sold, securities purchased under resale agreements and other short-term investments	—	74	—	74
Trading assets	2,034	130	201	2,365
Investment securities (1)	8,530	—	786	9,316
Loans	6,698	12,589	138	19,425
Mortgage servicing rights	13,386	—	—	13,386
Derivative assets	91	1	—	92
Other assets	10,281	452	11	10,744
Total assets	41,020	13,414	1,136	55,570
Short-term borrowings	—	—	905	905
Derivative liabilities	59	33 (2)	—	92
Accrued expenses and other liabilities	306	107 (2)	2	415
Long-term debt	3,598	3,694 (2)	136	7,428
Total liabilities	3,963	3,834	1,043	8,840
Noncontrolling interests	—	138	—	138
Net assets	$ 37,057	9,442	93	46,592
December 31, 2015				
Cash	$ —	157	—	157
Federal funds sold, securities purchased under resale agreements and other short-term investments	—	—	—	—
Trading assets	1,050	—	203	1,253
Investment securities (1)	12,388	425	2,171	14,984
Loans	9,661	4,811	4,887	19,359
Mortgage servicing rights	12,518	—	—	12,518
Derivative assets	290	1	—	291
Other assets	8,938	242	26	9,206
Total assets	44,845	5,636	7,287	57,768
Short-term borrowings	—	—	1,799	1,799
Derivative liabilities	133	47 (2)	—	180
Accrued expenses and other liabilities	496	10 (2)	1	507
Long-term debt	3,021	1,301 (2)	4,844	9,166
Total liabilities	3,650	1,358	6,644	11,652
Noncontrolling interests	—	93	—	93
Net assets	$ 41,195	4,185	643	46,023

(1) Excludes certain debt securities related to loans serviced for the Federal National Mortgage Association (FNMA), Federal Home Loan Mortgage Corporation (FHLMC) and GNMA.
(2) There were no VIE liabilities with recourse to the general credit of Wells Fargo for the periods presented.

Transactions with Unconsolidated VIEs

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

Table 8.2 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 8.2: Unconsolidated VIEs

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

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(in millions)	Total VIE assets	Carrying value - asset (liability): Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Net assets
December 31, 2015						
Residential mortgage loan securitizations:						
Conforming (2)	$ 1,199,225	2,458	11,665	—	(386)	13,737
Other/nonconforming	24,809	1,228	141	—	(1)	1,368
Commercial mortgage securitizations	184,959	6,323	712	203	(26)	7,212
Collateralized debt obligations:						
Debt securities	3,247	—	—	64	(57)	7
Loans (3)	3,314	3,207	—	—	—	3,207
Asset-based finance structures	13,063	8,956	—	(66)	—	8,890
Tax credit structures	26,099	9,094	—	—	(3,047)	6,047
Collateralized loan obligations	898	213	—	—	—	213
Investment funds	1,131	47	—	—	—	47
Other (4)	12,690	511	—	(44)	—	467
Total	$ 1,469,435	32,037	12,518	157	(3,517)	41,195

	Maximum exposure to loss: Debt and equity interests (1)	Servicing assets	Derivatives	Other commitments and guarantees	Total exposure
Residential mortgage loan securitizations:					
Conforming	$ 2,458	11,665	—	1,452	15,575
Other/nonconforming	1,228	141	—	1	1,370
Commercial mortgage securitizations	6,323	712	203	7,152	14,390
Collateralized debt obligations:					
Debt securities	—	—	64	57	121
Loans (3)	3,207	—	—	—	3,207
Asset-based finance structures	8,956	—	76	444	9,476
Tax credit structures	9,094	—	—	866	9,960
Collateralized loan obligations	213	—	—	—	213
Investment funds	47	—	—	—	47
Other (4)	511	—	117	150	778
Total	$ 32,037	12,518	460	10,122	55,137

(1) Includes total equity interests of $10.3 billion and $8.9 billion at December 31, 2016 and 2015, respectively. Also includes debt interests in the form of both loans and securities. Excludes certain debt securities held related to loans serviced for FNMA, FHLMC and GNMA.
(2) Excludes assets and related liabilities with a recorded carrying value on our balance sheet of $1.2 billion and $1.3 billion at December 31, 2016 and 2015, 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) Represents senior loans to trusts that are collateralized by asset-backed securities. The trusts invest predominantly in senior tranches from a diversified pool of U.S. asset securitizations, of which all are current and 100% and 70% were rated as investment grade by the primary rating agencies at December 31, 2016 and 2015, respectively. These senior loans are accounted for at amortized cost and are subject to the Company's allowance and credit charge-off policies.
(4) Includes structured financing and credit-linked note structures. Also contains investments in auction rate securities (ARS) issued by VIEs that we do not sponsor and, accordingly, are unable to obtain the total assets of the entity.

In Table 8.2, "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.

RESIDENTIAL MORTGAGE LOANS Residential mortgage loan securitizations are financed through the issuance of fixed-rate or floating-rate asset-backed securities, which are collateralized by the loans transferred to a VIE. We typically transfer loans we originated to these VIEs, account for the transfers as sales, retain the right to service the loans and may hold other beneficial interests issued by the VIEs. We also may be exposed to limited liability related to recourse agreements and repurchase agreements we make to our issuers and purchasers, which are included in other commitments and guarantees. In certain instances, we may service residential mortgage loan securitizations structured by third parties whose loans we did not originate or transfer. Our residential mortgage loan securitizations consist of conforming and nonconforming securitizations.

Conforming residential mortgage loan securitizations are those that are guaranteed by the GSEs, including GNMA. Because of the power of the GSEs over the VIEs that hold the assets from these conforming residential mortgage loan securitizations, we do not consolidate them.

The loans sold to the VIEs in nonconforming residential mortgage loan securitizations are those that do not qualify for a GSE guarantee. We may hold variable interests issued by the VIEs, including senior securities. We do not consolidate the nonconforming residential mortgage loan securitizations included in the table because we either do not hold any variable interests, hold variable interests that we do not consider potentially significant or are not the primary servicer for a majority of the VIE assets.

Other commitments and guarantees include amounts related to loans sold that we may be required to repurchase, or otherwise indemnify or reimburse the investor or insurer for losses incurred, due to material breach of contractual representations and warranties as well as other retained recourse arrangements. The maximum exposure to loss for material breach of contractual representations and warranties represents a stressed case estimate we utilize for determining stressed case regulatory capital needs and is considered to be a remote scenario.

COMMERCIAL MORTGAGE LOAN SECURITIZATIONS Commercial mortgage loan securitizations are financed through the issuance of fixed or floating-rate asset-backed securities, which are collateralized by the loans transferred to the VIE. In a typical securitization, we may transfer loans we originate to these VIEs, account for the transfers as sales, retain the right to service the loans and may hold other beneficial interests issued by the VIEs. In certain instances, we may service commercial mortgage loan securitizations structured by third parties whose loans we did not originate or transfer. We typically serve as primary or master servicer of these VIEs. The primary or master servicer in a commercial mortgage loan securitization typically cannot make the most significant decisions impacting the performance of the VIE and therefore does not have power over the VIE. We do not consolidate the commercial mortgage loan securitizations included in the disclosure because we either do not have power or do not have a variable interest that could potentially be significant to the VIE.

COLLATERALIZED DEBT OBLIGATIONS (CDOs) A CDO is a securitization where a VIE purchases a pool of assets consisting of asset-backed securities and issues multiple tranches of equity or notes to investors. In some CDOs, a portion of the assets are obtained synthetically through the use of derivatives such as credit default swaps or total return swaps.

In addition to our role as arranger we may have other forms of involvement with these CDOs. Such involvement may include acting as liquidity provider, derivative counterparty, secondary market maker or investor. For certain CDOs, we may also act as the collateral manager or servicer. We receive fees in connection with our role as collateral manager or servicer.

We assess whether we are the primary beneficiary of CDOs based on our role in them in combination with the variable interests we hold. Subsequently, we monitor our ongoing involvement to determine if the nature of our involvement has changed. We are not the primary beneficiary of these CDOs in most cases because we do not act as the collateral manager or servicer, which generally denotes power. In cases where we are the collateral manager or servicer, we are not the primary beneficiary because we do not hold interests that could potentially be significant to the VIE.

COLLATERALIZED LOAN OBLIGATIONS (CLOs) A CLO is a securitization where an SPE purchases a pool of assets consisting of loans and issues multiple tranches of equity or notes to investors. Generally, CLOs are structured on behalf of a third party asset manager that typically selects and manages the assets for the term of the CLO. Typically, the asset manager has the power over the significant decisions of the VIE through its discretion to manage the assets of the CLO. We assess whether we are the primary beneficiary of CLOs based on our role in them and the variable interests we hold. In most cases, we are not the primary beneficiary because we do not have the power to manage the collateral in the VIE.

In addition to our role as arranger, we may have other forms of involvement with these CLOs. Such involvement may include acting as underwriter, derivative counterparty, secondary market maker or investor. For certain CLOs, we may also act as the servicer, for which we receive fees in connection with that role. We also earn fees for arranging these CLOs and distributing the securities.

ASSET-BASED FINANCE STRUCTURES We engage in various forms of structured finance arrangements with VIEs that are collateralized by various asset classes including energy contracts, automobile and other transportation loans and leases, intellectual property, equipment and general corporate credit. We typically provide senior financing, and may act as an interest rate swap or commodity derivative counterparty when necessary. In most cases, we are not the primary beneficiary of these structures because we do not have power over the significant activities of the VIEs involved in them.

In fourth quarter 2014, we sold $8.3 billion of government guaranteed student loans, including the rights to service the loans, to a third party, resulting in a $217 million gain. In connection with the sale, we provided $6.5 billion in floating-rate loan financing to an asset backed financing entity (VIE) formed by the third party purchaser. Our financing, which is fully collateralized by government guaranteed student loans, is measured at amortized cost and classified in loans on the balance sheet. The collateral supporting our loan includes a portion of the student loans we sold. We are not the primary beneficiary of the VIE and, therefore, are not required to consolidate the entity as we do not have power over the significant activities of the entity. For information on the estimated fair value of the loan and related sensitivity analysis, see the Retained Interests from Unconsolidated VIEs section in this Note.

In addition, we also have investments in asset-backed securities that are collateralized by automobile leases or loans and cash. These fixed-rate and variable-rate securities have been structured as single-tranche, fully amortizing, unrated bonds that are equivalent to investment-grade securities due to their significant overcollateralization. The securities are issued by VIEs that have been formed by third party automobile financing institutions primarily because they require a source of liquidity to fund ongoing vehicle sales operations. The third party automobile financing institutions manage the collateral in the

VIEs, which is indicative of power in them and we therefore do not consolidate these VIEs.

TAX CREDIT STRUCTURES We co-sponsor and make investments in affordable housing and sustainable energy projects that are designed to generate a return primarily through the realization of federal tax credits. In some instances, our investments in these structures may require that we fund future capital commitments at the discretion of the project sponsors. While the size of our investment in a single entity may at times exceed 50% of the outstanding equity interests, we do not consolidate these structures due to the project sponsor's ability to manage the projects, which is indicative of power in them.

INVESTMENT FUNDS In first quarter 2016, we adopted ASU 2015-02 (*Amendments to the Consolidation Analysis*) which changed the consolidation analysis for certain investment funds. We do not consolidate these investment funds because we do not hold variable interests that are considered significant to the funds.

We voluntarily waived a portion of our management fees for certain money market funds that are exempt from the consolidation analysis to ensure the funds maintained a minimum level of daily net investment income. The amount of fees waived in 2016 and 2015 was $109 million and $209 million, respectively.

OTHER TRANSACTIONS WITH VIEs Other VIEs include certain entities that issue auction rate securities (ARS) which are debt instruments with long-term maturities, that re-price more frequently, and preferred equities with no maturity. At December 31, 2016, we held $453 million of ARS issued by VIEs compared with $502 million at December 31, 2015. We acquired the ARS pursuant to agreements entered into in 2008 and 2009.

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

TRUST PREFERRED SECURITIES VIEs that we wholly own issue debt securities or preferred equity to third party investors. All of the proceeds of the issuance are invested in debt securities or preferred equity that we issue to the VIEs. The VIEs' operations and cash flows relate only to the issuance, administration and repayment of the securities held by third parties. We do not consolidate these VIEs because the sole assets of the VIEs are receivables from us, even though we own all of the voting equity shares of the VIEs, have fully guaranteed the obligations of the VIEs and may have the right to redeem the third party securities under certain circumstances. In our consolidated balance sheet at December 31, 2016 and 2015, we reported the debt securities issued to the VIEs as long-term junior subordinated debt with a carrying value of $2.1 billion and $2.2 billion, respectively, and the preferred equity securities issued to the VIEs as preferred stock with a carrying value of $2.5 billion at both dates. These amounts are in addition to the involvements in these VIEs included in the preceding table.

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 8.3 presents the cash flows for our transfers accounted for as sales.

Table 8.3: Cash Flows From Sales and Securitization Activity

					Year ended December 31,	
		2016		2015		2014
(in millions)	**Mortgage loans**	**Other financial assets**	Mortgage loans	Other financial assets	Mortgage loans	Other financial assets
Proceeds from securitizations and whole loan sales	**$ 252,723**	**347**	202,335	531	164,331	—
Fees from servicing rights retained	**3,492**	**—**	3,675	5	4,062	8
Cash flows from other interests held (1)	**2,898**	**1**	1,297	38	1,417	75
Repurchases of assets/loss reimbursements (2):						
Non-agency securitizations and whole loan transactions	**26**	**—**	14	—	6	—
Agency securitizations (3)	**133**	**—**	300	—	316	—
Servicing advances, net of repayments	**(218)**	**—**	(764)	—	(170)	—

(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. In addition, during 2016, we paid $11 million to third-party investors to settle repurchase liabilities on pools of loans, compared with $19 million and $78 million in 2015 and 2014, respectively.
(3) Represent loans repurchased from GNMA, FNMA, and FHLMC under representation and warranty provisions included in our loan sales contracts. Excludes $9.9 billion in delinquent insured/guaranteed loans that we service and have exercised our option to purchase out of GNMA pools in 2016, compared with $11.3 billion and $13.8 billion in 2015 and 2014, respectively. These loans are predominantly insured by the FHA or guaranteed by the VA.

In 2016, 2015, and 2014, we recognized net gains of $524 million, $506 million and $288 million, respectively, from transfers accounted for as sales of financial assets. These net gains largely relate to commercial mortgage securitizations and residential mortgage securitizations where the loans were not already carried at fair value.

Sales with continuing involvement during 2016, 2015 and 2014 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 2016, 2015 and 2014 we transferred $236.6 billion, $186.6 billion and $155.8 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 2016 we recorded a $2.1 billion servicing asset, measured at fair value using a Level 3 measurement technique, securities of $4.4 billion, classified as Level 2, and a $36 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 2015, we recorded a $1.6 billion servicing asset, securities of $1.9 billion and a $43 million liability. In 2014, we recorded a $1.2 billion servicing asset, securities of $751 million and a $44 million liability.

Table 8.4 presents the key weighted-average assumptions we used to measure residential mortgage servicing rights at the date of securitization.

Table 8.4: Residential Mortgage Servicing Rights

	Residential mortgage servicing rights		
	2016	2015	2014
Year ended December 31,			
Prepayment speed (1)	**11.7%**	12.1	12.4
Discount rate	**6.5**	7.3	7.6
Cost to service ($ per loan) (2)	**$ 132**	223	259

(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 2016, 2015 and 2014, we transferred $18.3 billion, $17.3 billion and $10.3 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 $429 million in 2016, $338 million in 2015 and $198 million in 2014, respectively, because the loans were carried at lower of cost or market value (LOCOM). In connection with these transfers, in 2016 we recorded a servicing asset of $270 million, initially measured at fair value using a Level 3 measurement technique, and securities of $258 million, classified as Level 2. In 2015, we recorded a servicing asset of $180 million and securities of $241 million. In 2014, we recorded a servicing asset of $99 million and securities of $100 million.

Retained Interests from Unconsolidated VIEs

Table 8.5 provides key economic assumptions and the sensitivity of the current fair value of residential mortgage servicing rights and other interests held to immediate adverse changes in those assumptions. "Other interests held" relate to residential and commercial mortgage loan securitizations. Residential mortgage-backed securities retained in securitizations issued through GSEs, such as FNMA, FHLMC and GNMA, are excluded from the table because these securities have a remote risk of credit loss due to the GSE guarantee. These securities also have economic characteristics similar to GSE mortgage-backed securities that we purchase, which are not included in the table. Subordinated interests include only those bonds whose credit rating was below AAA by a major rating agency at issuance. Senior interests include only those bonds whose credit rating was AAA by a major rating agency at issuance. The information presented excludes trading positions held in inventory.

Table 8.5: Retained Interests from Unconsolidated VIEs

			Other interests held		
			Consumer	Commercial (2)	
($ in millions, except cost to service amounts)	Residential mortgage servicing rights (1)	Interest-only strips	Subordinated bonds	Subordinated bonds	Senior bonds
Fair value of interests held at December 31, 2016	**$ 12,959**	**28**	**1**	**249**	**552**
Expected weighted-average life (in years)	**6.3**	**3.9**	**8.3**	**3.1**	**5.1**
Key economic assumptions:					
Prepayment speed assumption (3)	**10.3%**	**17.4**	**13.5**		
Decrease in fair value from:					
10% adverse change	**$ 583**	**1**	**—**		
25% adverse change	**1,385**	**2**	**—**		
Discount rate assumption	**6.8%**	**13.3**	**10.7**	**5.2**	**2.7**
Decrease in fair value from:					
100 basis point increase	**$ 649**	**1**	**—**	**7**	**23**
200 basis point increase	**1,239**	**1**	**—**	**12**	**45**
Cost to service assumption ($ per loan)	**155**				
Decrease in fair value from:					
10% adverse change	**515**				
25% adverse change	**1,282**				
Credit loss assumption			**3.0%**	**4.7**	**—**
Decrease in fair value from:					
10% higher losses			**$ —**	**—**	**—**
25% higher losses			**—**	**—**	**—**
Fair value of interests held at December 31, 2015	$ 12,415	34	1	342	673
Expected weighted-average life (in years)	6.0	3.6	11.6	1.9	5.8
Key economic assumptions:					
Prepayment speed assumption (3)	11.4%	19.0	15.1		
Decrease in fair value from:					
10% adverse change	$ 616	1	—		
25% adverse change	1,463	3	—		
Discount rate assumption	7.3%	13.8	10.5	5.3	3.0
Decrease in fair value from:					
100 basis point increase	$ 605	1	—	6	33
200 basis point increase	1,154	1	—	11	63
Cost to service assumption ($ per loan)	168				
Decrease in fair value from:					
10% adverse change	567				
25% adverse change	1,417				
Credit loss assumption			1.1%	2.8	—
Decrease in fair value from:					
10% higher losses			$ —	—	—
25% higher losses			—	2	—

(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 mortgage servicing rights (MSRs) included in the previous table, we have a small portfolio of commercial MSRs with a fair value of $2.0 billion and $1.7 billion at December 31, 2016 and 2015, 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 December 31, 2016, and 2015, results in a decrease in fair value of $259 million and $150 million, respectively. See Note 9 (Mortgage Banking Activities) for further information on our commercial MSRs.

We also have a loan to an unconsolidated third party VIE that we extended in fourth quarter 2014 in conjunction with our sale of government guaranteed student loans. The loan is carried at amortized cost and approximates fair value at December 31, 2016 and 2015. The carrying amount of the loan at December 31, 2016 and 2015, was $3.2 billion and $4.9 billion, respectively. The estimated fair value of the loan is considered a Level 3 measurement that is determined using discounted cash flows that are based on changes in the discount rate due to changes in the risk premium component (credit spreads). The primary economic assumption impacting the fair value of our loan is the discount rate. Changes in the credit loss assumption are not expected to affect the estimated fair value of the loan due to the government guarantee of the underlying collateral. The sensitivity of the current fair value to an immediate adverse increase of 200 basis points in the risk premium component of the discount rate assumption is a decrease in fair value of $154 million and $82 million at December 31, 2016 and 2015, respectively. For more information on the student loan sale, see the discussion on Asset-Based Finance Structures earlier in this Note.

The sensitivities in the preceding paragraphs and table are hypothetical and caution should be exercised when relying on this data. Changes in value based on variations in assumptions generally cannot be extrapolated because the relationship of the change in the assumption to the change in value may not be linear. Also, the effect of a variation in a particular assumption on the value of the other interests held is calculated independently without changing any other assumptions. In reality, changes in one factor may result in changes in others (for example, changes in prepayment speed estimates could result in changes in the credit losses), which might magnify or counteract the sensitivities.

Off-Balance Sheet Loans

Table 8.6 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 8.6: Off-Balance Sheet Loans Sold or Securitized

					Net charge-offs	
	Total loans		Delinquent loans and foreclosed assets (1)		Year ended	
	December 31,		December 31,		December 31,	
(in millions)	**2016**	2015	**2016**	2015	**2016**	2015
Commercial:						
Real estate mortgage	**$ 106,745**	110,815	**3,325**	6,670	**279**	383
Total commercial	**106,745**	110,815	**3,325**	6,670	**279**	383
Consumer:						
Real estate 1-4 family first mortgage	**1,160,191**	1,235,662	**16,453**	20,904	**1,011**	814
Total consumer	**1,160,191**	1,235,662	**16,453**	20,904	**1,011**	814
Total off-balance sheet sold or securitized loans (2)	**$ 1,266,936**	1,346,477	**19,778**	27,574	**1,290**	1,197

(1) Includes $1.7 billion and $5.0 billion of commercial foreclosed assets and $1.8 billion and $2.2 billion of consumer foreclosed assets at December 31, 2016 and 2015, respectively.
(2) At December 31, 2016 and 2015, the table includes total loans of $1.2 trillion at both dates, delinquent loans of $9.8 billion and $12.1 billion, and foreclosed assets of $1.3 billion and $1.7 billion, respectively, for FNMA, FHLMC and GNMA. Net charge-offs exclude loans sold to FNMA, FHLMC and GNMA as we do not service or manage the underlying real estate upon foreclosure and, as such, do not have access to net charge-off information.

Transactions with Consolidated VIEs and Secured Borrowings

Table 8.7 presents a summary of financial assets and liabilities for asset transfers accounted for as secured borrowings and involvements with consolidated VIEs. "Assets" are presented using GAAP measurement methods, which may include fair value, credit impairment or other adjustments, and therefore in some instances will differ from "Total VIE assets." For VIEs that obtain exposure synthetically through derivative instruments, the remaining notional amount of the derivative is included in "Total VIE assets." On the consolidated balance sheet, we separately disclose the consolidated assets of certain VIEs that can only be used to settle the liabilities of those VIEs.

Table 8.7: Transactions with Consolidated VIEs and Secured Borrowings

			Carrying value			
(in millions)		Total VIE assets	Assets	Liabilities	Noncontrolling interests	Net assets
December 31, 2016						
Secured borrowings:						
Municipal tender option bond securitizations	**$**	**1,473**	**998**	**(907)**	**—**	**91**
Residential mortgage securitizations (1)		**139**	**138**	**(136)**	**—**	**2**
Total secured borrowings		**1,612**	**1,136**	**(1,043)**	**—**	**93**
Consolidated VIEs:						
Commercial and industrial loans and leases		**8,821**	**8,623**	**(2,819)**	**(14)**	**5,790**
Nonconforming residential mortgage loan securitizations		**3,349**	**2,974**	**(1,003)**	**—**	**1,971**
Commercial real estate loans		**1,516**	**1,516**	**—**	**—**	**1,516**
Structured asset finance		**23**	**13**	**(9)**	**—**	**4**
Investment funds		**142**	**142**	**(2)**	**(67)**	**73**
Other		**166**	**146**	**(1)**	**(57)**	**88**
Total consolidated VIEs		**14,017**	**13,414**	**(3,834)**	**(138)**	**9,442**
Total secured borrowings and consolidated VIEs	**$**	**15,629**	**14,550**	**(4,877)**	**(138)**	**9,535**
December 31, 2015						
Secured borrowings:						
Municipal tender option bond securitizations	$	2,818	2,400	(1,800)	—	600
Residential mortgage securitizations		4,738	4,887	(4,844)	—	43
Total secured borrowings		7,556	7,287	(6,644)	—	643
Consolidated VIEs:						
Nonconforming residential mortgage loan securitizations		4,134	3,654	(1,239)	—	2,415
Commercial real estate loans		1,185	1,185	—	—	1,185
Structured asset finance		54	20	(18)	—	2
Investment funds		482	482	—	—	482
Other		305	295	(101)	(93)	101
Total consolidated VIEs		6,160	5,636	(1,358)	(93)	4,185
Total secured borrowings and consolidated VIEs	$	13,716	12,923	(8,002)	(93)	4,828

(1) In fourth quarter 2016, we sold the servicing rights to our GNMA reverse mortgage securitizations. As a result, we derecognized $3.8 billion of residential mortgage loans and related secured borrowing liabilities.

In addition to the structure types included in the previous table, at both December 31, 2016 and 2015, we had approximately $6.0 billion of private placement debt financing issued through a consolidated VIE. The issuance is classified as long-term debt in our consolidated financial statements. At December 31, 2016, we pledged approximately $434 million in loans (principal and interest eligible to be capitalized), and $6.1 billion in available-for-sale securities to collateralize the VIE's borrowings, compared with $529 million and $5.9 billion, respectively, at December 31, 2015. These assets were not transferred to the VIE, and accordingly we have excluded the VIE from the previous table.

We have raised financing through the securitization of certain financial assets in transactions with VIEs accounted for as secured borrowings. We also consolidate VIEs where we are the primary beneficiary. In certain transactions we provide contractual support in the form of limited recourse and liquidity to facilitate the remarketing of short-term securities issued to third party investors. Other than this limited contractual support, the assets of the VIEs are the sole source of repayment of the securities held by third parties.

MUNICIPAL TENDER OPTION BOND SECURITIZATIONS As part of our normal investment portfolio activities, we consolidate municipal bond trusts that hold highly rated, long-term, fixed-rate municipal bonds, the majority of which are rated AA or better. Our residual interests in these trusts generally allow us to capture the economics of owning the securities outright, and constructively make decisions that significantly impact the economic performance of the municipal bond vehicle, primarily by directing the sale of the municipal bonds owned by the vehicle. In addition, the residual interest owners have the right to receive benefits and bear losses that are proportional to owning the underlying municipal bonds in the trusts. The trusts obtain financing by issuing floating-rate trust certificates that reprice on a weekly or other basis to third-party investors. Under certain conditions, if we elect to terminate the trusts and withdraw the underlying assets, the third party investors are entitled to a small portion of any unrealized gain on the underlying assets. We may serve as remarketing agent and/or liquidity provider for the trusts. The floating-rate investors have the right to tender the certificates at specified dates, often with as little as seven days' notice. Should we be unable to remarket the tendered certificates, we are generally obligated to purchase them at par under standby liquidity facilities unless the bond's credit rating has declined below investment grade or there has been an event of default or bankruptcy of the issuer and insurer.

COMMERCIAL AND INDUSTRIAL LOANS AND LEASES In conjunction with the GE Capital business acquisitions, on March 1, 2016, we acquired certain consolidated SPE entities. The most significant of these SPEs is a revolving master trust entity that purchases dealer floorplan loans and issues senior and subordinated notes. The senior notes are held by third parties and the subordinated notes and residual equity interests are held by us. At December 31, 2016, total assets held by the master trust were $7.5 billion and the outstanding senior notes were $2.7 billion. The other SPEs acquired include securitization term trust entities, which purchase vendor finance lease and loan assets and issue notes to investors, and an SPE that engages in leasing activities to specific vendors. As of December 31, 2016, all outstanding third party debt of the securitization term trust entities was repaid in accordance with the agreements, and the remaining assets were repurchased by Wells Fargo. The trusts will be dissolved during the first quarter of 2017. The remaining other SPE held $1.2 billion in total assets at December 31, 2016. We are the primary beneficiary of these acquired SPEs due to our ability to direct the significant activities of the SPEs, such as our role as servicer, and because we hold variable interests that are considered significant.

NONCONFORMING RESIDENTIAL MORTGAGE LOAN SECURITIZATIONS We have consolidated certain of our nonconforming residential mortgage loan securitizations in accordance with consolidation accounting guidance. We have determined we are the primary beneficiary of these securitizations because we have the power to direct the most significant activities of the entity through our role as primary servicer and also hold variable interests that we have determined to be significant. The nature of our variable interests in these entities may include beneficial interests issued by the VIE, mortgage servicing rights and recourse or repurchase reserve liabilities. The beneficial interests issued by the VIE that we hold include either subordinate or senior securities held in an amount that we consider potentially significant.

INVESTMENT FUNDS Our adoption of ASU 2015-02 (*Amendments to the Consolidation Analysis*) changed the consolidation analysis for certain investment funds. We consolidate certain investment funds because we have both the power to manage fund assets and hold variable interests that are considered significant.

Note 9: Mortgage Banking Activities

Mortgage banking activities, included in the Community Banking and Wholesale Banking operating segments, consist of residential and commercial mortgage originations, sale activity and servicing.

We apply the amortization method to commercial MSRs and apply the fair value method to residential MSRs. Table 9.1 presents the changes in MSRs measured using the fair value method.

Table 9.1: Analysis of Changes in Fair Value MSRs

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Fair value, beginning of year	$ **12,415**	12,738	15,580
Servicing from securitizations or asset transfers (1)	**2,204**	1,556	1,196
Sales and other (2)	**(65)**	(9)	(7)
Net additions	**2,139**	1,547	1,189
Changes in fair value:			
Due to changes in valuation model inputs or assumptions:			
Mortgage interest rates (3)	**543**	247	(2,150)
Servicing and foreclosure costs (4)	**106**	(83)	(20)
Discount rates (5)	**—**	—	(55)
Prepayment estimates and other (6)	**(84)**	50	103
Net changes in valuation model inputs or assumptions	**565**	214	(2,122)
Changes due to collection/realization of expected cash flows over time	**(2,160)**	(2,084)	(1,909)
Total changes in fair value	**(1,595)**	(1,870)	(4,031)
Fair value, end of year	$ **12,959**	12,415	12,738

(1) Includes impacts associated with exercising our right to repurchase delinquent loans from GNMA loan securitization pools.
(2) Includes sales and transfers of MSRs, which can result in an increase of total reported MSRs if the sales or transfers are related to nonperforming loan portfolios.
(3) Includes prepayment speed changes as well as other valuation changes due to changes in mortgage interest rates (such as changes in estimated interest earned on custodial deposit balances).
(4) Includes costs to service and unreimbursed foreclosure costs.
(5) 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 9.2 presents the changes in amortized MSRs.

Table 9.2: Analysis of Changes in Amortized MSRs

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Balance, beginning of year	$ **1,308**	1,242	1,229
Purchases	**97**	144	157
Servicing from securitizations or asset transfers	**270**	180	110
Amortization	**(269)**	(258)	(254)
Balance, end of year (1)	$ **1,406**	1,308	1,242
Fair value of amortized MSRs:			
Beginning of year	$ **1,680**	1,637	1,575
End of year	**1,956**	1,680	1,637

(1) Commercial amortized MSRs are evaluated for impairment purposes by the following risk strata: agency (GSEs) for multi-family properties and non-agency. There was no valuation allowance recorded for the periods presented on the commercial amortized MSRs.

We present the components of our managed servicing portfolio in Table 9.3 at unpaid principal balance for loans serviced and subserviced for others and at book value for owned loans serviced.

Table 9.3: Managed Servicing Portfolio

(in billions)	Dec 31, 2016	Dec 31, 2015
Residential mortgage servicing:		
Serviced for others	$ 1,205	1,300
Owned loans serviced	347	345
Subserviced for others	8	4
Total residential servicing	1,560	1,649
Commercial mortgage servicing:		
Serviced for others	479	478
Owned loans serviced	132	122
Subserviced for others	8	7
Total commercial servicing	619	607
Total managed servicing portfolio	$ 2,179	2,256
Total serviced for others	$ 1,684	1,778
Ratio of MSRs to related loans serviced for others	0.85%	0.77

Table 9.4 presents the components of mortgage banking noninterest income.

Table 9.4: Mortgage Banking Noninterest Income

		Year ended December 31,		
(in millions)		2016	2015	2014
Servicing income, net:				
Servicing fees:				
Contractually specified servicing fees		$ 3,778	4,037	4,285
Late charges		180	198	203
Ancillary fees		229	288	319
Unreimbursed direct servicing costs (1)		(819)	(625)	(694)
Net servicing fees		3,368	3,898	4,113
Changes in fair value of MSRs carried at fair value:				
Due to changes in valuation model inputs or assumptions (2)	(A)	565	214	(2,122)
Changes due to collection/realization of expected cash flows over time		(2,160)	(2,084)	(1,909)
Total changes in fair value of MSRs carried at fair value		(1,595)	(1,870)	(4,031)
Amortization		(269)	(258)	(254)
Net derivative gains from economic hedges (3)	(B)	261	671	3,509
Total servicing income, net		1,765	2,441	3,337
Net gains on mortgage loan origination/sales activities		4,331	4,060	3,044
Total mortgage banking noninterest income		$ 6,096	6,501	6,381
Market-related valuation changes to MSRs, net of hedge results (2)(3)	(A)+(B)	$ 826	885	1,387

(1) Includes costs associated with foreclosures, unreimbursed interest advances to investors, and other interest costs.
(2) Refer to the changes in fair value of MSRs table in this Note for more detail.
(3) Represents results from economic hedges used to hedge the risk of changes in fair value of MSRs. See Note 16 (Derivatives Not Designated as Hedging Instruments) for additional discussion and detail.

Table 9.5 summarizes the changes in our liability for mortgage loan repurchase losses. This liability is in “Accrued expenses and other liabilities” in our consolidated balance sheet and adjustments to the repurchase liability are recorded in net gains on mortgage origination/sales activities in “Mortgage banking” in our consolidated income statement. Because the level of mortgage loan repurchase losses depends upon economic factors, investor demand strategies and other external conditions that may change over the life of the underlying loans, the level of the liability for mortgage loan repurchase losses is difficult to estimate and requires considerable management judgment. We maintain regular contact with the GSEs, the Federal Housing Finance Agency (FHFA), and other significant investors to monitor their repurchase demand practices and issues as part of our process to update our repurchase liability estimate as new information becomes available.

Because of the uncertainty in the various estimates underlying the mortgage repurchase liability, there is a range of losses in excess of the recorded mortgage repurchase liability that is reasonably possible. The estimate of the range of possible loss for representations and warranties does not represent a probable loss, and is based on currently available information, significant judgment, and a number of assumptions that are subject to change. The high end of this range of reasonably possible losses exceeded our recorded liability by $195 million at December 31, 2016, and was determined based upon modifying the assumptions (particularly to assume significant changes in investor repurchase demand practices) used in our best estimate of probable loss to reflect what we believe to be the high end of reasonably possible adverse assumptions.

Table 9.5: Analysis of Changes in Liability for Mortgage Loan Repurchase Losses

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Balance, beginning of year	**$ 378**	615	899
Provision for repurchase losses:			
Loan sales	**36**	43	44
Change in estimate (1)	**(139)**	(202)	(184)
Net reductions	**(103)**	(159)	(140)
Losses	**(46)**	(78)	(144)
Balance, end of year	**$ 229**	378	615

(1) Results from changes in investor demand and mortgage insurer practices, credit deterioration and changes in the financial stability of correspondent lenders.

Note 10: Intangible Assets

Table 10.1 presents the gross carrying value of intangible assets and accumulated amortization.

Table 10.1: Intangible Assets

	December 31, 2016			December 31, 2015		
(in millions)	Gross carrying value	Accumulated amortization	Net carrying value	Gross carrying value	Accumulated amortization	Net carrying value
Amortized intangible assets (1):						
MSRs (2)	$ 3,595	(2,189)	1,406	3,228	(1,920)	1,308
Core deposit intangibles	12,834	(11,214)	1,620	12,834	(10,295)	2,539
Customer relationship and other intangibles	3,928	(2,839)	1,089	3,163	(2,549)	614
Total amortized intangible assets	$ 20,357	(16,242)	4,115	19,225	(14,764)	4,461
Unamortized intangible assets:						
MSRs (carried at fair value) (2)	$ 12,959			12,415		
Goodwill	26,693			25,529		
Trademark	14			14		

(1) Excludes fully amortized intangible assets.
(2) See Note 9 (Mortgage Banking Activities) for additional information on MSRs.

Table 10.2 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 December 31, 2016. Future amortization expense may vary from these projections.

Table 10.2: Amortization Expense for Intangible Assets

(in millions)	Amortized MSRs	Core deposit intangibles	Customer relationship and other intangibles (1)	Total
Year ended December 31, 2016 (actual)	**$ 269**	**919**	**290**	**1,478**
Estimate for year ended December 31,				
2017	$ 252	851	305	1,408
2018	210	769	297	1,276
2019	186	—	105	291
2020	170	—	87	257
2021	146	—	74	220

(1) The year ended December 31, 2016 includes $18 million for lease intangible amortization.

Table 10.3 shows the allocation of goodwill to our reportable operating segments.

Table 10.3: Goodwill

(in millions)	Community Banking	Wholesale Banking	Wealth and Investment Management	Consolidated Company
December 31, 2014	$ 16,870	7,633	1,202	25,705
Reduction in goodwill related to divested businesses and other	(21)	(158)	—	(179)
Goodwill from business combinations	—	—	3	3
December 31, 2015	**$ 16,849**	**7,475**	**1,205**	**25,529**
Reduction in goodwill related to divested businesses and other	**—**	**(88)**	**(2)**	**(90)**
Goodwill from business combinations	**—**	**1,198**	**56**	**1,254**
December 31, 2016	**$ 16,849**	**8,585**	**1,259**	**26,693**

We assess goodwill for impairment at a reporting unit level, which is one level below the operating segments. Our goodwill was not impaired at December 31, 2016 and 2015. The fair values exceeded the carrying amount of our respective reporting units by approximately 17% to 425% at December 31, 2016. See Note 24 (Operating Segments) for further information on management reporting.

Note 11: Deposits

Table 11.1 presents a summary of the time certificates of deposit (CDs) and other time deposits issued by domestic and foreign offices.

Table 11.1: Time Certificates of Deposit

	December 31,	
(in billions)	**2016**	2015
Total domestic and foreign	**$ 107.9**	98.5
Domestic:		
$100,000 or more	**46.7**	48.9
$250,000 or more	**42.0**	43.0
Foreign:		
$100,000 or more	**11.6**	9.5
$250,000 or more	**11.6**	9.5

Substantially all CDs and other time deposits issued by domestic and foreign offices were interest bearing and a significant portion of our foreign time deposits with a denomination of $100,000 or more have maturities of less than 7 days.

The contractual maturities of these deposits are presented in Table 11.2.

Table 11.2: Contractual Maturities of CDs and Other Time Deposits

(in millions)	December 31, 2016
2017	$ 85,427
2018	9,584
2019	3,742
2020	2,504
2021	2,149
Thereafter	4,485
Total	$ 107,891

The contractual maturities of the domestic time deposits with a denomination of $100,000 or more are presented in Table 11.3.

Table 11.3: Contractual Maturities of Domestic Time Deposits

(in millions)	2016
Three months or less	$ 15,000
After three months through six months	15,863
After six months through twelve months	12,218
After twelve months	3,573
Total	$ 46,654

Demand deposit overdrafts of $548 million and $523 million were included as loan balances at December 31, 2016 and 2015, respectively.

Note 12: Short-Term Borrowings

Table 12.1 shows selected information for short-term borrowings, which generally mature in less than 30 days. We pledge certain financial instruments that we own to collateralize repurchase agreements and other securities financings. For additional information, see the "Pledged Assets" section of Note 14 (Guarantees, Pledged Assets and Collateral).

Table 12.1: Short-Term Borrowings

	2016		2015		2014	
(in millions)	**Amount**	**Rate**	Amount	Rate	Amount	Rate
As of December 31,						
Federal funds purchased and securities sold under agreements to repurchase	**$ 78,124**	**0.17%**	$ 82,948	0.21%	$ 51,052	0.07%
Commercial paper	**120**	**0.93**	334	0.81	2,456	0.34
Other short-term borrowings (1)	**18,537**	**0.28**	14,246	(0.10)	10,010	0.07
Total	**$ 96,781**	**0.19**	$ 97,528	0.17	$ 63,518	0.08
Year ended December 31,						
Average daily balance						
Federal funds purchased and securities sold under agreements to repurchase	**$ 99,955**	**0.33**	$ 75,021	0.09	$ 44,680	0.08
Commercial paper	**256**	**0.86**	1,583	0.36	4,751	0.17
Other short-term borrowings (1)	**14,976**	**0.02**	10,861	(0.08)	10,680	0.18
Total	**$ 115,187**	**0.29**	$ 87,465	0.07	$ 60,111	0.10
Maximum month-end balance						
Federal funds purchased and securities sold under agreements to repurchase (2)	**$ 109,645**	**N/A**	$ 89,800	N/A	$ 51,052	N/A
Commercial paper (3)	**519**	**N/A**	3,552	N/A	6,070	N/A
Other short-term borrowings (4)	**18,537**	**N/A**	14,246	N/A	12,209	N/A

N/A- Not applicable

(1) Negative other short-term borrowings rate in 2015 is a result of increased customer demand for certain securities in stock loan transactions combined with the impact of low interest rates.
(2) Highest month-end balance in each of the last three years was October 2016, October 2015 and December 2014.
(3) Highest month-end balance in each of the last three years was March 2016, March 2015 and March 2014.
(4) Highest month-end balance in each of the last three years was December 2016, December 2015 and June 2014.

Note 13: Long-Term Debt

We issue long-term debt denominated in multiple currencies, predominantly in U.S. dollars. Our issuances have both fixed and floating interest rates. As a part of our overall interest rate risk management strategy, we often use derivatives to manage our exposure to interest rate risk. We also use derivatives to manage our exposure to foreign currency risk. As a result, a majority of the long-term debt presented below is hedged in a fair value or cash flow hedge relationship. See Note 16 (Derivatives) for further information on qualifying hedge contracts.

Table 13.1 presents a summary of our long-term debt carrying values, reflecting unamortized debt discounts and premiums, and purchase accounting adjustments, where applicable. The interest rates displayed represent the range of contractual rates in effect at December 31, 2016. These interest rates do not include the effects of any associated derivatives designated in a hedge accounting relationship.

Table 13.1: Long-Term Debt

			December 31,	
			2016	2015
(in millions)	Maturity date(s)	Stated interest rate(s)		
Wells Fargo & Company (Parent only)				
Senior				
Fixed-rate notes	2017-2045	0.375-6.75%	$ **79,767**	68,604
Floating-rate notes	2017-2048	0.108-3.075%	**19,011**	15,942
Structured notes (1)	2017-2056	0.00-5.0%	**6,858**	5,672
Total senior debt - Parent			**105,636**	90,218
Subordinated				
Fixed-rate notes (2)	2018-2046	3.45-7.574%	**26,794**	25,119
Floating-rate notes			**—**	639
Total subordinated debt - Parent			**26,794**	25,758
Junior subordinated				
Fixed-rate notes - hybrid trust securities	2029-2036	5.95-7.95%	**1,362**	1,398
Floating-rate notes	2027	1.38-1.88%	**290**	280
Total junior subordinated debt - Parent (3)			**1,652**	1,678
Total long-term debt - Parent (2)			**134,082**	117,654
Wells Fargo Bank, N.A. and other bank entities (Bank)				
Senior				
Fixed-rate notes	2018-2019	1.65-2.15%	**7,758**	—
Floating-rate notes	2017-2053	0.626-1.622%	**7,168**	6,694
Floating-rate extendible notes (4)	2017	1.133-1.187%	**68**	6,315
Fixed-rate advances - Federal Home Loan Bank (FHLB) (5)	2017-2031	3.83-7.50%	**79**	102
Floating-rate advances - FHLB (5)	2017-2021	0.62-1.325%	**77,075**	37,000
Structured notes (1)	2017-2025	1.5-8.5%	**1,238**	1
Capital leases (Note 7)	2017-2025	7.045-17.775%	**7**	8
Total senior debt - Bank			**93,393**	50,120
Subordinated				
Fixed-rate notes	2017-2038	5.25-7.74%	**6,500**	7,927
Floating-rate notes	2017	1.273-2.135%	**167**	989
Total subordinated debt - Bank			**6,667**	8,916
Junior subordinated				
Floating-rate notes	2027	1.476-1.53%	**332**	322
Total junior subordinated debt - Bank (3)			**332**	322
Long-term debt issued by VIE - Fixed rate (6)	2020-2047	0.00-7.00%	**371**	456
Long-term debt issued by VIE - Floating rate (6)	2017-2047	0.77-17.781%	**3,323**	845
Mortgage notes and other debt (7)	2017-2051	0.201-9.2%	**12,333**	16,365
Total long-term debt - Bank			**116,419**	77,024

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			December 31,	
			2016	2015
(in millions)	Maturity date(s)	Stated interest rate(s)		
Other consolidated subsidiaries				
Senior				
Fixed-rate notes	2017-2023	2.774-3.46%	**4,346**	4,628
Structured notes (1)	2021	0.00-1.16%	**1**	1
Total senior debt - Other consolidated subsidiaries			**4,347**	4,629
Junior subordinated				
Floating-rate notes	2027	1.387%	**155**	155
Total junior subordinated debt - Other consolidated subsidiaries (3)			**155**	155
Mortgage notes and other (7)	2017-2018	2.0-3.94%	**74**	74
Total long-term debt - Other consolidated subsidiaries			**4,576**	4,858
Total long-term debt			**$ 255,077**	199,536

(1) Primarily consists of long-term notes where the performance of the note is linked to an embedded equity, commodity, or currency index, or basket of indices accounted for separately from the note as a free-standing derivative. For information on embedded derivatives, see the "Derivatives Not Designated as Hedging Instruments" section in Note 16 (Derivatives). In addition, a major portion consists of zero coupon callable notes where interest is paid as part of the final redemption amount.

(2) Includes fixed-rate subordinated notes issued by the Parent at a discount of $135 million and $137 million in 2016 and 2015, respectively, to effect a modification of Wells Fargo Bank, NA notes. These subordinated notes are carried at their par amount on the balance sheet of the Parent presented in Note 25 (Parent-Only Financial Statements). In addition, in 2016, due to the prospective adoption of ASU 2015-03, Parent long-term debt also includes $2 million of debt issuance costs and $299 million of affiliate related issuance costs, see Note 1 (Summary of Significant Accounting Policies).

(3) Represents junior subordinated debentures held by unconsolidated wholly-owned trusts formed for the sole purpose of issuing trust preferred securities. See Note 8 (Securitizations and Variable Interest Entities) for additional information on our trust preferred security structures.

(4) Represents floating-rate extendible notes where holders of the notes may elect to extend the contractual maturity of all or a portion of the principal amount on a periodic basis.

(5) At December 31, 2016 and 2015, FHLB advances were secured by residential loan collateral.

(6) For additional information on VIEs, see Note 8 (Securitizations and Variable Interest Entities).

(7) Primarily related to securitizations and secured borrowings, see Note 8 (Securitizations and Variable Interest Entities).

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 $255.1 billion at December 31, 2016, increased $55.5 billion from December 31, 2015.

The aggregate carrying value of long-term debt that matures (based on contractual payment dates) as of December 31, 2016, in each of the following five years and thereafter is presented in Table 13.2.

Table 13.2: Maturity of Long-Term Debt

						December 31, 2016	
(in millions)	2017	2018	2019	2020	2021	Thereafter	Total
Wells Fargo & Company (Parent Only)							
Senior notes	$ 13,102	7,992	6,417	13,016	17,565	47,544	105,636
Subordinated notes	—	552	—	—	—	26,242	26,794
Junior subordinated notes	—	—	—	—	—	1,652	1,652
Total long-term debt - Parent	$ 13,102	8,544	6,417	13,016	17,565	75,438	134,082
Wells Fargo Bank, N.A. and other bank entities (Bank)							
Senior notes	$ 9,653	30,446	31,895	11,010	10,223	166	93,393
Subordinated notes	1,321	—	—	—	—	5,346	6,667
Junior subordinated notes	—	—	—	—	—	332	332
Securitizations and other bank debt	4,353	1,588	472	505	137	8,972	16,027
Total long-term debt - Bank	$ 15,327	32,034	32,367	11,515	10,360	14,816	116,419
Other consolidated subsidiaries							
Senior notes	$ 1,115	756	1,126	—	964	386	4,347
Junior subordinated notes	—	—	—	—	—	155	155
Securitizations and other bank debt	1	73	—	—	—	—	74
Total long-term debt - Other consolidated subsidiaries	$ 1,116	829	1,126	—	964	541	4,576
Total long-term debt	$ 29,545	41,407	39,910	24,531	28,889	90,795	255,077

As part of our long-term and short-term borrowing arrangements, we are subject to various financial and operational covenants. Some of the agreements under which debt has been issued have provisions that may limit the merger or sale of certain subsidiary banks and the issuance of capital stock or convertible securities by certain subsidiary banks. At December 31, 2016, we were in compliance with all the covenants.

Note 14: Guarantees, Pledged Assets and Collateral

Guarantees are contracts that contingently require us to make payments to a guaranteed party based on an event or a change in an underlying asset, liability, rate or index. Guarantees are generally in the form of standby letters of credit, securities lending and other indemnifications, written put options, recourse obligations, and other types of arrangements. Table 14.1 shows carrying value, maximum exposure to loss on our guarantees and the related non-investment grade amounts.

Table 14.1: Guarantees – Carrying Value and Maximum Exposure to Loss

		Maximum exposure to loss					
(in millions)	Carrying value	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
December 31, 2016							
Standby letters of credit (1)	**$ 38**	**16,050**	**8,727**	**3,194**	**658**	**28,629**	**9,898**
Securities lending and other indemnifications	**—**	**—**	**—**	**1**	**1,166**	**1,167**	**2**
Written put options (2)	**37**	**10,427**	**10,805**	**4,573**	**1,216**	**27,021**	**15,915**
Loans and MHFS sold with recourse	**55**	**84**	**637**	**947**	**8,592**	**10,260**	**7,228**
Factoring guarantees	**—**	**1,109**	**—**	**—**	**—**	**1,109**	**1,109**
Other guarantees	**6**	**19**	**21**	**17**	**3,580**	**3,637**	**15**
Total guarantees	**$ 136**	**27,689**	**20,190**	**8,732**	**15,212**	**71,823**	**34,167**
December 31, 2015							
Standby letters of credit (1)	$ 38	16,360	9,618	4,116	642	30,736	8,981
Securities lending and other indemnifications	—	—	—	—	1,841	1,841	—
Written put options (2)	290	9,450	7,401	5,742	1,487	24,080	13,868
Loans and MHFS sold with recourse	62	112	723	690	6,434	7,959	4,864
Factoring guarantees	—	1,598	—	—	—	1,598	1,598
Other guarantees	28	62	17	17	2,482	2,578	53
Total guarantees	$ 418	27,582	17,759	10,565	12,886	68,792	29,364

(1) Total maximum exposure to loss includes direct pay letters of credit (DPLCs) of $9.2 billion and $11.8 billion at December 31, 2016 and 2015, respectively. We issue DPLCs to provide credit enhancements for certain bond issuances. Beneficiaries (bond trustees) may draw upon these instruments to make scheduled principal and interest payments, redeem all outstanding bonds because a default event has occurred, or for other reasons as permitted by the agreement. We also originate multipurpose lending commitments under which borrowers have the option to draw on the facility in one of several forms, including as a standby letter of credit. Total maximum exposure to loss includes the portion of these facilities for which we have issued standby letters of credit under the commitments.

(2) Written put options, which are in the form of derivatives, are also included in the derivative disclosure in Note 16 (Derivatives). Amounts for December 31, 2015 have been revised to include previously omitted contracts.

"Maximum exposure to loss" and "Non-investment grade" are required disclosures under GAAP. Non-investment grade represents those guarantees on which we have a higher risk of being required to perform under the terms of the guarantee. If the underlying assets under the guarantee are non-investment grade (that is, an external rating that is below investment grade or an internal credit default grade that is equivalent to a below investment grade external rating), we consider the risk of performance to be high. Internal credit default grades are determined based upon the same credit policies that we use to evaluate the risk of payment or performance when making loans and other extensions of credit. Credit quality indicators we usually consider in evaluating risk of payment 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 its extremely remote possibility, where the value of our interests and any associated collateral declines to zero. Maximum exposure to loss estimates in Table 14.1 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.

STANDBY LETTERS OF CREDIT We issue standby letters of credit, which include performance and financial guarantees, for customers in connection with contracts between our customers and third parties. Standby letters of credit are agreements where we are obligated to make payment to a third party on behalf of a customer if the customer fails to meet their contractual obligations. We consider the credit risk in standby letters of credit and commercial and similar letters of credit in determining the allowance for credit losses.

SECURITIES LENDING AND OTHER INDEMNIFICATIONS As a securities lending agent, we lend debt and equity securities from participating institutional clients' portfolios to third-party borrowers. These arrangements are for an indefinite period of time, and we indemnify our clients against default by the borrower in returning these lent securities. This indemnity is supported by collateral received from the borrowers and is generally in the form of cash or highly liquid securities that are marked to market daily.

We use certain third-party clearing agents to clear and settle transactions on behalf of some of our institutional brokerage customers. We indemnify the clearing agents against loss that could occur for non-performance by our customers on transactions that are not sufficiently collateralized. Transactions subject to the indemnifications may include customer obligations related to the settlement of margin accounts and short positions, such as written call options and securities borrowing transactions. Outstanding customer obligations were $175 million and $352 million and the related collateral was $991 million and $1.5 billion at December 31, 2016 and 2015, respectively. Our estimate of maximum exposure to loss, which requires judgment regarding the range and likelihood of future events, was $1.2 billion as of December 31, 2016, and $1.8 billion as of December 31, 2015.

We enter into other types of indemnification agreements in the ordinary course of business under which we agree to indemnify third parties against any damages, losses and expenses incurred in connection with legal and other proceedings arising from relationships or transactions with us. These relationships or transactions include those arising from service as a director or officer of the Company, underwriting agreements relating to our securities, acquisition agreements and various other business transactions or arrangements. Because the extent of our obligations under these agreements depends entirely upon the occurrence of future events, we are unable to determine our potential future liability under these agreements. We do, however, record a liability for residential mortgage loans that we expect to repurchase pursuant to various representations and warranties. See Note 9 (Mortgage Banking Activities) for additional information on the liability for mortgage loan repurchase losses.

WRITTEN PUT OPTIONS Written put options are contracts that give the counterparty the right to sell to us an underlying instrument held by the counterparty at a specified price and may include options, floors, caps and credit default swaps. These written put option contracts generally permit net settlement. While these derivative transactions expose us to risk if the option is exercised, we manage this risk by entering into offsetting trades or by taking short positions in the underlying instrument. We offset market risk related to put options written to customers with cash securities or other offsetting derivative transactions. Additionally, for certain of these contracts, we require the counterparty to pledge the underlying instrument as collateral for the transaction. Our ultimate obligation under written put options is based on future market conditions and is only quantifiable at settlement. See Note 16 (Derivatives) for additional information regarding written derivative contracts.

LOANS AND MHFS SOLD WITH RECOURSE In certain loan sales or securitizations, we provide recourse to the buyer whereby we are required to indemnify the buyer for any loss on the loan up to par value plus accrued interest. We provide recourse, predominantly to GSEs, on loans sold under various programs and arrangements. Substantially all of these programs and arrangements require that we share in the loans' credit exposure for their remaining life by providing recourse to the GSE, up to 33.33% of actual losses incurred on a pro-rata basis in the event of borrower default. Under the remaining recourse programs and arrangements, if certain events occur within a specified period of time from transfer date, we have to provide limited recourse to the buyer to indemnify them for losses incurred for the remaining life of the loans. The maximum exposure to loss reported in Table 14.1 represents the outstanding principal balance of the loans sold or securitized that are subject to recourse provisions or the maximum losses per the contractual agreements. However, we believe the likelihood of loss of the entire balance due to these recourse agreements is remote, and amounts paid can be recovered in whole or in part from the sale of collateral. During 2016 and 2015 we repurchased $5 million and $6 million, respectively, of loans associated with these agreements. We also provide representation and warranty guarantees on loans sold under the various recourse programs and arrangements. Our loss exposure relative to these guarantees is separately considered and provided for, as necessary, in determination of our liability for loan repurchases due to breaches of representation and warranties. See Note 9 (Mortgage Banking Activities) for additional information on the liability for mortgage loan repurchase losses.

FACTORING GUARANTEES Under certain factoring arrangements, we are required to purchase trade receivables from third parties, generally upon their request, if receivable debtors default on their payment obligations.

OTHER GUARANTEES We are members of exchanges and clearing houses that we use to clear our trades and those of our customers. It is common that all members in these organizations are required to collectively guarantee the performance of other members. Our obligations under the guarantees are based on either a fixed amount or a multiple of the collateral we are required to maintain with these organizations. We have not recorded a liability for these arrangements as of the dates presented in Table 14.1 because we believe the likelihood of loss is remote.

Other guarantees also include liquidity agreements and contingent performance arrangements. We provide liquidity to certain off-balance sheet entities that hold securitized fixed-rate municipal bonds and consumer or commercial assets that are partially funded with the issuance of money market and other short-term notes. See Note 8 (Securitization and Variable Interest Entities) for additional information on securitization and VIEs.

Under our contingent performance arrangements, we are required to pay the counterparties to transactions related to various customer relationships and lease agreements if third parties default on certain obligations.

Pledged Assets

As part of our liquidity management strategy, we pledge various assets to secure trust and public deposits, borrowings and letters of credit from the FHLB and FRB, securities sold under agreements to repurchase (repurchase agreements), securities lending arrangements, and for other purposes as required or permitted by law or insurance statutory requirements. The types of collateral we pledge include securities issued by federal agencies, GSEs, domestic and foreign companies and various commercial and consumer loans. Table 14.2 provides the total carrying amount of pledged assets by asset type and pledged off-balance sheet securities for securities financings. The table excludes pledged consolidated VIE assets of $13.4 billion and $5.6 billion at December 31, 2016 and 2015, respectively, which can only be used to settle the liabilities of those entities. The table also excludes $1.1 billion and $7.3 billion in assets pledged in transactions with VIE's accounted for as secured borrowings at December 31, 2016 and 2015, respectively. See Note 8 (Securitizations and Variable Interest Entities) for additional information on consolidated VIE assets and secured borrowings.

Table 14.2: Pledged Assets

(in millions)		**Dec 31, 2016**	Dec 31, 2015
Trading assets and other (1)	$	**84,603**	73,396
Investment securities (2)		**90,946**	113,912
Mortgages held for sale and loans (3)		**516,112**	453,058
Total pledged assets	$	**691,661**	640,366

(1) Consists of trading assets of $33.2 billion and $38.7 billion at December 31, 2016, and 2015, respectively and off-balance sheet securities of $51.4 billion and $34.7 billion as of the same dates, respectively, that are pledged as collateral for repurchase agreements and other securities financings. Total trading assets and other includes $84.2 billion and $73.0 billion at December 31, 2016 and 2015, respectively, that permit the secured parties to sell or repledge the collateral.

(2) Includes carrying value of $6.2 billion and $6.5 billion (fair value of $6.2 billion and $6.5 billion) in collateral for repurchase agreements at December 31, 2016 and 2015, respectively, which are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Also includes $617 million and $13.0 billion in collateral pledged under repurchase agreements at December 31, 2016 and 2015, respectively, that permit the secured parties to sell or repledge the collateral. All other pledged securities are pursuant to agreements that do not permit the secured party to sell or repledge the collateral.

(3) Includes mortgages held for sale of $15.8 billion and $8.7 billion at December 31, 2016 and 2015, respectively. Substantially all of the total mortgages held for sale and loans are pledged under agreements that do not permit the secured parties to sell or repledge the collateral. Amounts exclude $1.2 billion and $1.3 billion at December 31, 2016 and 2015, respectively, of pledged loans recorded on our balance sheet representing certain delinquent loans that are eligible for repurchase from GNMA loan securitizations. See Note 8 (Securitizations and Variable Interest Entities) for additional information.

Securities Financing Activities

We enter into resale and repurchase agreements and securities borrowing and lending agreements (collectively, “securities financing activities”) typically to finance trading positions (including securities and derivatives), acquire securities to cover short trading positions, accommodate customers’ financing needs, and settle other securities obligations. These activities are conducted through our broker dealer subsidiaries and to a lesser extent through other bank entities. Most of our securities financing activities involve high quality, liquid securities such as U.S. Treasury securities and government agency securities, and to a lesser extent, less liquid securities, including equity securities, corporate bonds and asset-backed securities. We account for these transactions as collateralized financings in which we typically receive or pledge securities as collateral. We believe these financing transactions generally do not have material credit risk given the collateral provided and the related monitoring processes.

OFFSETTING OF RESALE AND REPURCHASE AGREEMENTS AND SECURITIES BORROWING AND LENDING AGREEMENTS Table 14.3 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 amount of such collateral to the amount of the related recognized asset or liability for each counterparty.

In addition to the amounts included in Table 14.3, we also have balance sheet netting related to derivatives that is disclosed in Note 16 (Derivatives).

Table 14.3: Offsetting – Resale and Repurchase Agreements

(in millions)		Dec 31, 2016	Dec 31, 2015
Assets:			
Resale and securities borrowing agreements			
Gross amounts recognized	$	**91,123**	74,935
Gross amounts offset in consolidated balance sheet (1)		**(11,680)**	(9,158)
Net amounts in consolidated balance sheet (2)		**79,443**	65,777
Collateral not recognized in consolidated balance sheet (3)		**(78,837)**	(65,035)
Net amount (4)	$	**606**	742
Liabilities:			
Repurchase and securities lending agreements			
Gross amounts recognized (5)	$	**89,111**	91,278
Gross amounts offset in consolidated balance sheet (1)		**(11,680)**	(9,158)
Net amounts in consolidated balance sheet (6)		**77,431**	82,120
Collateral pledged but not netted in consolidated balance sheet (7)		**(77,184)**	(81,772)
Net amount (8)	$	**247**	348

(1) Represents recognized amount of resale and repurchase agreements with counterparties subject to enforceable MRAs that have been offset in the consolidated balance sheet.
(2) At December 31, 2016 and 2015, includes $58.1 billion and $45.7 billion, respectively, classified on our consolidated balance sheet in federal funds sold, securities purchased under resale agreements and other short-term investments and $21.3 billion and $20.1 billion, respectively, in loans.
(3) Represents the fair value of collateral we have received under enforceable MRAs or MSLAs, limited for table presentation purposes to the amount of the recognized asset due from each counterparty. At December 31, 2016 and 2015, we have received total collateral with a fair value of $102.3 billion and $84.9 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 $50.0 billion at December 31, 2016 and $33.4 billion (revised to correct amount previously reported) at December 31, 2015.
(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 December 31, 2016 and 2015, we have pledged total collateral with a fair value of $91.4 billion and $92.9 billion, respectively, of which the counterparty does not have the right to sell or repledge $6.6 billion as of December 31, 2016 and $6.9 billion as of December 31, 2015, respectively.
(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 by the fact that most of our securities financing activities involve highly liquid securities, we underwrite and monitor the financial strength of our counterparties, we monitor the fair value of collateral pledged relative to contractually required repurchase amounts, and we monitor that our collateral is properly returned through the clearing and settlement process in advance of our cash repayment. Table 14.4 provides the underlying collateral types of our gross obligations under repurchase and securities lending agreements.

Table 14.4: Underlying Collateral Types of Gross Obligations

(in millions)		Dec 31, 2016		Dec 31, 2015
Repurchase agreements:				
Securities of U.S. Treasury and federal agencies	$	**34,335**		32,254
Securities of U.S. States and political subdivisions		**81**		7
Federal agency mortgage-backed securities		**32,669**		37,033
Non-agency mortgage-backed securities		**2,167**		1,680
Corporate debt securities		**6,829**		4,674
Asset-backed securities		**3,010**		2,275
Equity securities		**1,309**		2,457
Other		**1,704**		1,162
Total repurchases		**82,104**		81,542
Securities lending:				
Securities of U.S. Treasury and federal agencies		**152**		61
Federal agency mortgage-backed securities		**104**		76
Non-agency mortgage-backed securities		**1**		—
Corporate debt securities		**653**		899
Equity securities (1)		**6,097**		8,700
Total securities lending		**7,007**		9,736
Total repurchases and securities lending	$	**89,111**	$	91,278

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

Table 14.5: Contractual Maturities of Gross Obligations

(in millions)		Overnight/ continuous	Up to 30 days	30-90 days	>90 days	Total gross obligation
December 31, 2016						
Repurchase agreements	**$**	**60,516**	**9,598**	**6,762**	**5,228**	**82,104**
Securities lending		**5,565**	**167**	**1,275**	**—**	**7,007**
Total repurchases and securities lending (1)	**$**	**66,081**	**9,765**	**8,037**	**5,228**	**89,111**
December 31, 2015						
Repurchase agreements	$	58,021	19,561	2,935	1,025	81,542
Securities lending		7,845	362	1,529	—	9,736
Total repurchases and securities lending (1)	$	65,866	19,923	4,464	1,025	91,278

(1) Securities lending is executed under agreements that allow either party to terminate the transaction without notice, while repurchase agreements have a term structure to them that technically matures at a point in time. The overnight/continuous repurchase agreements require election of both parties to roll the trade rather than the election to terminate the arrangement as in securities lending.

Note 15: Legal Actions

Wells Fargo and certain of our subsidiaries are involved in a number of judicial, regulatory and arbitration proceedings concerning matters arising from the conduct of our business activities. These proceedings include actions brought against Wells Fargo and/or our subsidiaries with respect to corporate related matters and transactions in which Wells Fargo and/or our subsidiaries were involved. In addition, Wells Fargo and our subsidiaries may be requested to provide information or otherwise cooperate with government authorities in the conduct of investigations of other persons or industry groups.

Although there can be no assurance as to the ultimate outcome, Wells Fargo and/or our subsidiaries have generally denied, or believe we have a meritorious defense and will deny, liability in all significant litigation pending against us, including the matters described below, and we intend to defend vigorously each case, other than matters we describe as having settled. Reserves are established for legal claims when payments associated with the claims become probable and the costs can be reasonably estimated. The actual costs of resolving legal claims may be substantially higher or lower than the amounts reserved for those claims.

ATM ACCESS FEE LITIGATION In October 2011, a purported class action, *Mackmin, et. al. v. Visa, Inc. et. al.*, was filed against Wells Fargo & Company and Wells Fargo Bank, N.A. in the United States District Court for the District of Columbia, which action also names Visa, MasterCard, and several other banks as defendants. The action alleges that the Visa and MasterCard requirement that if an ATM operator charges an access fee on Visa and MasterCard transactions, then that fee cannot be greater than the access fee charged for transactions on other networks violates antitrust rules. Plaintiffs seek treble damages, restitution, injunctive relief and attorneys' fees where available under federal and state law. Two other antitrust cases which make similar allegations were filed in the same court, but these cases did not name Wells Fargo as a defendant. On February 13, 2013, the district court granted defendants' motions to dismiss and dismissed the three actions. Plaintiffs appealed the dismissals and, on August 4, 2015, the U.S. 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 U.S. Supreme Court granted defendants' petitions for writ of certiorari to review the decisions of the U.S. Court of Appeals for the District of Columbia. On November 17, 2016, the U.S. Supreme Court dismissed the petitions as improvidently granted, and the three cases returned to the district court for further proceedings.

INTERCHANGE LITIGATION Wells Fargo Bank, N.A., Wells Fargo & Company, Wachovia Bank, N.A. and Wachovia Corporation are named as defendants, separately or in combination, in putative class actions filed on behalf of a plaintiff class of merchants and in individual actions brought by individual merchants with regard to the interchange fees associated with Visa and MasterCard payment card transactions. These actions have been consolidated in the U.S. District Court for the Eastern District of New York. Visa, MasterCard and several banks and bank holding companies are named as defendants in various of these actions. 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 actions and reached a separate settlement in principle of the consolidated individual actions. The settlement payments to be made by all defendants in the consolidated class and individual actions totaled approximately $6.6 billion before reductions applicable to certain merchants opting out of the settlement. The class settlement also provided for the distribution to class merchants of 10 basis points of default interchange across all credit rate categories for a period of eight consecutive months. The District Court granted final approval of the settlement, which was appealed to the Second Circuit Court of Appeals by settlement objector merchants. Other merchants opted out of the settlement and are pursuing several individual actions. On June 30, 2016, the Second Circuit Court of Appeals vacated the settlement agreement and reversed and remanded the consolidated action to the U.S. 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. On November 30, 2016, the District Court appointed lead class counsel for a damages class and an equitable relief class. Several of the opt-out litigations were settled during the pendency of the Second Circuit appeal while others remain pending. Discovery is proceeding in the opt-out litigations and the remanded class cases.

MORTGAGE RELATED REGULATORY INVESTIGATIONS Federal and state government agencies, including the United States Department of Justice, continue investigations or examinations of certain mortgage related practices of Wells Fargo and predecessor institutions. Wells Fargo, for itself and for predecessor institutions, has responded, and continues to respond, to requests from these agencies seeking information regarding the origination, underwriting and securitization of residential mortgages, including sub-prime mortgages. This includes continued discussions with various government agencies that are part of the RMBS Working Group of the Financial Fraud Enforcement Task Force in which potential theories of liability have been raised. Other financial institutions have entered into settlements with these agencies, the nature of which related to the specific activities of those financial institutions, including the imposition of significant financial penalties and remedial actions.

OFAC RELATED INVESTIGATION The Company has self-identified an issue whereby certain foreign banks utilized a Wells Fargo software based solution to conduct import/export trade-related financing transactions with countries and entities prohibited by the Office of Foreign Assets Control ("OFAC") of the United States Department of the

Treasury. We do not believe any funds related to these transactions flowed through accounts at Wells Fargo as a result of the aforementioned conduct. The Company has made a voluntary self-disclosure to OFAC and is cooperating with an inquiry from the United States Department of Justice.

ORDER OF POSTING LITIGATION A series of putative class actions have been filed 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. There are currently several such cases pending against Wells Fargo Bank (including the Wachovia Bank cases to which Wells Fargo succeeded), most of which have been consolidated in multi-district litigation proceedings (the "MDL proceedings") in the U.S. 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 these motions to compel arbitration on October 17, 2016. Wells Fargo has appealed these decisions to the Eleventh Circuit Court of Appeals.

RMBS TRUSTEE LITIGATION In November 2014, a group of institutional investors (the "Institutional Investor Plaintiffs") filed a putative class action complaint in the United States District Court for the Southern District of New York against Wells Fargo Bank, N.A., alleging claims against the bank in its capacity as trustee for a number of residential mortgage-backed securities ("RMBS") trusts (the "Federal Court Complaint"). Similar complaints have been filed against other trustees in various courts, including in the Southern District of New York, in New York State court and in other states, by RMBS investors. The Federal Court Complaint alleges that Wells Fargo Bank, N.A., as trustee, caused losses to investors and asserts causes of action based upon, among other things, the trustee's alleged failure to notify and enforce repurchase obligations of mortgage loan sellers for purported breaches of representations and warranties, notify investors of alleged events of default, and abide by appropriate standards of care following alleged events of default. Plaintiffs seek money damages in an unspecified amount, reimbursement of expenses, and equitable relief. In December 2014 and December 2015, certain other investors filed four complaints alleging similar claims against Wells Fargo Bank, N.A. in the Southern District of New York, and the various cases pending against us are proceeding before the same judge. A similar complaint was also filed in May 2016 in New York State court by a different plaintiff investor. On January 19, 2016, an order was entered in connection with the Federal Court Complaint in which the district court declined to exercise jurisdiction over certain of the trusts at issue. The Institutional Investor Plaintiffs subsequently filed a complaint in respect of most of the dismissed trusts (and certain additional trusts) in California State court, which was dismissed without prejudice on September 27, 2016. On December 17, 2016, the Institutional Investor Plaintiffs filed a new putative class action complaint in New York State court (the "State Court Complaint") in respect of 261 RMBS trusts that Wells Fargo Bank, N.A. serves or served as trustee. We have moved to dismiss all of the actions against us, except for the recently filed State Court Complaint, which has not yet been served.

SALES PRACTICES MATTERS Federal, state and local government agencies, including the United States Department of Justice, the United States Securities and Exchange Commission and the United States Department of Labor, and state attorneys general and prosecutors' offices, as well as Congressional committees, have undertaken formal or informal inquiries, investigations or examinations arising out of certain sales practices of the Company that were the subject of settlements with the Consumer Financial Protection Bureau, the Office of the Comptroller of the Currency and the Office of the Los Angeles City Attorney announced by the Company on September 8, 2016. The Company has responded, and continues to respond, to requests from a number of the foregoing seeking information regarding these sales practices and the circumstances of the settlements and related matters. A number of lawsuits have also been filed by non-governmental parties seeking damages or other remedies related to these sales practices. These include consumer class action cases, a securities fraud class action, shareholder derivative demands, a lawsuit brought under the Employee Retirement Income Security Act, and wrongful termination/demotion and wage and hour class actions.

VA LOAN GUARANTY PROGRAM QUI TAM Wells Fargo Bank, N.A. is named as a defendant in a *qui tam* lawsuit, *United States ex rel. Bibby & Donnelly v. Wells Fargo, et al.*, brought in the U.S. District Court for the Northern District of Georgia by two individuals on behalf of the United States under the federal False Claims Act. The lawsuit was originally filed on March 8, 2006, and then unsealed on October 3, 2011. The United States elected not to intervene in the action. The plaintiffs allege that Wells Fargo charged certain impermissible closing or origination fees to borrowers under a U.S. Department of Veteran Affairs' ("VA") loan guaranty program and then made false statements to the VA concerning such fees in violation of the civil False Claims Act. On their behalf and on behalf of the United States, the plaintiffs seek, among other things, damages equal to three times the amount paid by the VA in connection with any loan guaranty as to which the borrower paid certain impermissible fees or charges less the net amount received by the VA upon any re-sale of collateral, statutory civil penalties of between $5,500 and $11,000 per False Claims Act violation, and attorneys' fees. The parties have engaged in extensive discovery, and both parties have moved for judgment in their favor as a matter of law. A non-jury trial is currently scheduled for April 2017.

OUTLOOK When establishing a liability for contingent litigation losses, the Company determines a range of potential losses for each matter that is both probable and estimable, and records the amount it considers to be the best estimate within the range. The high end of the range of reasonably possible potential litigation losses in excess of the Company's liability for probable and estimable losses was approximately $1.8 billion as of December 31, 2016. 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 liability or the range of reasonably possible loss. Wells Fargo is unable to determine whether the ultimate resolution of either the mortgage related regulatory investigations or the sales practices matters will have a material adverse effect on its consolidated financial condition. Based on information currently available, advice of counsel, available insurance coverage and established reserves, Wells Fargo believes that the eventual outcome of other actions against Wells Fargo and/or its subsidiaries will not, individually or in the aggregate, have a material adverse effect on Wells Fargo's consolidated financial condition. However, it is possible that the ultimate resolution of a matter, if unfavorable, may be material to Wells Fargo's results of operations for any particular period.

Note 16: 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.

Our asset/liability management approach to interest rate, foreign currency and certain other risks includes the use of derivatives. Such derivatives are typically designated as fair value or cash flow hedges, or economic hedges. We use derivatives to help minimize significant, unplanned fluctuations in earnings, fair values of assets and liabilities, and cash flows caused by interest rate, foreign currency and other market risk volatility. This approach involves modifying the repricing characteristics of certain assets and liabilities so that changes in interest rates, foreign currency and other exposures, which may cause the hedged assets and liabilities to gain or lose fair value, do not have a significantly adverse effect on the net interest margin, cash flows and earnings. In a fair value or economic hedge, the effect of change in fair value will generally be offset by the unrealized gain or loss on the derivatives linked to the hedged assets and liabilities. In a cash flow hedge, where we manage the variability of cash payments due to interest rate fluctuations by the effective use of derivatives linked to hedged assets and liabilities, the hedged asset or liability is not adjusted and the unrealized gain or loss on the derivative is generally reflected in other comprehensive income and not in earnings.

We also offer various derivatives, including interest rate, commodity, equity, credit and foreign exchange contracts, as an accommodation to our customers as part of our trading businesses. These derivative transactions, which involve us engaging in market-making activities or acting as an intermediary, are conducted in an effort to help customers manage their market risks. We usually offset our exposure from such derivatives by entering into other financial contracts, such as separate derivative or security transactions. These customer accommodations and any offsetting derivatives are treated as customer accommodation trading and other derivatives in our disclosures. Additionally, embedded derivatives that are required to be accounted for separately from their host contracts are included in the customer accommodation trading and other derivatives disclosures as applicable.

Table 16.1 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 16.1: Notional or Contractual Amounts and Fair Values of Derivatives

	December 31, 2016			December 31, 2015		
	Notional or	Fair value		Notional or	Fair value	
(in millions)	contractual amount	Asset derivatives	Liability derivatives	contractual amount	Asset derivatives	Liability derivatives
Derivatives designated as hedging instruments						
Interest rate contracts (1)	$ 235,222	6,587	2,710	191,684	7,477	2,253
Foreign exchange contracts (1)	25,861	673	2,779	25,115	378	2,494
Total derivatives designated as qualifying hedging instruments		7,260	5,489		7,855	4,747
Derivatives not designated as hedging instruments						
Economic hedges:						
Interest rate contracts (2)	228,051	1,098	1,441	211,375	195	315
Equity contracts	7,964	545	83	7,427	531	47
Foreign exchange contracts	20,435	626	165	16,407	321	100
Credit contracts - protection purchased	482	102	—	—	—	—
Subtotal		2,371	1,689		1,047	462
Customer accommodation trading and other derivatives:						
Interest rate contracts	6,018,370	57,583	61,058	4,685,898	55,053	55,409
Commodity contracts	65,532	3,057	2,551	47,571	4,659	5,519
Equity contracts	151,675	4,813	6,029	139,956	7,068	4,761
Foreign exchange contracts	318,999	9,595	9,798	295,962	8,248	8,339
Credit contracts - protection sold	10,483	85	389	10,544	83	541
Credit contracts - protection purchased	19,964	365	138	18,018	567	88
Other contracts	961	—	47	1,041	—	58
Subtotal		75,498	80,010		75,678	74,715
Total derivatives not designated as hedging instruments		77,869	81,699		76,725	75,177
Total derivatives before netting		85,129	87,188		84,580	79,924
Netting (3)		(70,631)	(72,696)		(66,924)	(66,004)
Total		$ 14,498	14,492		17,656	13,920

(1) Notional amounts presented exclude $1.9 billion of interest rate contracts at both December 31, 2016 and 2015, for certain derivatives that are combined for designation as a hedge on a single instrument. The notional amount for foreign exchange contracts at December 31, 2016 and 2015, excludes $9.6 billion and $7.8 billion, respectively for certain derivatives that are combined for designation as a hedge on a single instrument.
(2) Includes economic hedge derivatives used to hedge the risk of changes in the fair value of residential MSRs, MHFS, loans, derivative loan commitments and other interests held.
(3) Represents balance sheet netting of derivative asset and liability balances, related cash collateral and portfolio level counterparty valuation adjustments. See the next table in this Note for further information.

Table 16.2 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 $74.4 billion and $78.4 billion of gross derivative assets and liabilities, respectively, at December 31, 2016, and $69.9 billion and $74.0 billion, respectively, at December 31, 2015, 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 $10.7 billion and $8.7 billion, respectively, at December 31, 2016 and $14.6 billion and $5.9 billion, respectively, at December 31, 2015, 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 the following table 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 14 (Guarantees, Pledged Assets and Collateral).

Table 16.2: 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)
December 31, 2016						
Derivative assets						
Interest rate contracts	**$ 65,268**	**(59,880)**	**5,388**	**(987)**	**4,401**	**34 %**
Commodity contracts	**3,057**	**(707)**	**2,350**	**(30)**	**2,320**	**74**
Equity contracts	**5,358**	**(3,018)**	**2,340**	**(365)**	**1,975**	**75**
Foreign exchange contracts	**10,894**	**(6,663)**	**4,231**	**(362)**	**3,869**	**97**
Credit contracts-protection sold	**85**	**(48)**	**37**	**—**	**37**	**61**
Credit contracts-protection purchased	**467**	**(315)**	**152**	**(1)**	**151**	**98**
Total derivative assets	**$ 85,129**	**(70,631)**	**14,498**	**(1,745)**	**12,753**	
Derivative liabilities						
Interest rate contracts	**$ 65,209**	**(58,956)**	**6,253**	**(3,129)**	**3,124**	**30 %**
Commodity contracts	**2,551**	**(402)**	**2,149**	**(37)**	**2,112**	**38**
Equity contracts	**6,112**	**(2,433)**	**3,679**	**(331)**	**3,348**	**85**
Foreign exchange contracts	**12,742**	**(10,572)**	**2,170**	**(251)**	**1,919**	**100**
Credit contracts-protection sold	**389**	**(295)**	**94**	**(44)**	**50**	**98**
Credit contracts-protection purchased	**138**	**(38)**	**100**	**(2)**	**98**	**50**
Other contracts	**47**	**—**	**47**	**—**	**47**	**100**
Total derivative liabilities	**$ 87,188**	**(72,696)**	**14,492**	**(3,794)**	**10,698**	
December 31, 2015						
Derivative assets						
Interest rate contracts	$ 62,725	(56,612)	6,113	(749)	5,364	39 %
Commodity contracts	4,659	(998)	3,661	(76)	3,585	35
Equity contracts	7,599	(2,625)	4,974	(471)	4,503	51
Foreign exchange contracts	8,947	(6,141)	2,806	(34)	2,772	98
Credit contracts-protection sold	83	(79)	4	—	4	76
Credit contracts-protection purchased	567	(469)	98	(2)	96	100
Total derivative assets	$ 84,580	(66,924)	17,656	(1,332)	16,324	
Derivative liabilities						
Interest rate contracts	$ 57,977	(53,259)	4,718	(3,543)	1,175	35 %
Commodity contracts	5,519	(1,052)	4,467	(40)	4,427	84
Equity contracts	4,808	(2,241)	2,567	(154)	2,413	85
Foreign exchange contracts	10,933	(8,968)	1,965	(634)	1,331	100
Credit contracts-protection sold	541	(434)	107	(107)	—	100
Credit contracts-protection purchased	88	(50)	38	(6)	32	70
Other contracts	58	—	58	—	58	100
Total derivative liabilities	$ 79,924	(66,004)	13,920	(4,484)	9,436	

(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 $348 million and $375 million related to derivative assets and $114 million and $81 million related to derivative liabilities as of December 31, 2016 and 2015, respectively. Cash collateral totaled $4.8 billion and $7.1 billion, netted against derivative assets and liabilities, respectively, at December 31, 2016, and $5.3 billion and $4.7 billion, respectively, at December 31, 2015.

(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) Represents derivatives executed in over-the-counter markets not settled through a central clearing organization. Over-the-counter percentages are calculated based on Gross amounts recognized as of the respective balance sheet date. The remaining percentage represents derivatives settled through a central clearing organization, which are executed in either over-the-counter or exchange-traded markets.

Fair Value Hedges

We use interest rate swaps to convert certain of our fixed-rate long-term debt 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 mortgages held for sale.

Table 16.3 shows the net gains (losses) recognized in the income statement related to derivatives in fair value hedging relationships.

Table 16.3: Derivatives in Fair Value Hedging Relationships

	Interest rate contracts hedging:			Foreign exchange contracts hedging:		
(in millions)	Available-for-sale securities	Mortgages held for sale	Long-term debt	Available-for-sale securities	Long-term debt	Total net gains (losses) on fair value hedges
Year ended December 31, 2016						
Net interest income (expense) recognized on derivatives (1)	**$ (582)**	**(6)**	**1,892**	**9**	**31**	**1,344**
Gains (losses) recorded in noninterest income						
Recognized on derivatives	**(418)**	**(11)**	**(1,746)**	**265**	**(539)**	**(2,449)**
Recognized on hedged item	**443**	**7**	**1,707**	**(271)**	**557**	**2,443**
Net recognized on fair value hedges (ineffective portion)	**$ 25**	**(4)**	**(39)**	**(6)**	**18**	**(6)**
Year ended December 31, 2015						
Net interest income (expense) recognized on derivatives (1)	$ (782)	(13)	1,955	—	182	1,342
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(18)	(9)	327	253	(2,370)	(1,817)
Recognized on hedged item	7	(4)	(251)	(247)	2,390	1,895
Net recognized on fair value hedges (ineffective portion)	$ (11)	(13)	76	6	20	78
Year ended December 31, 2014						
Net interest income (expense) recognized on derivatives (1)	$ (722)	(15)	1,843	(10)	308	1,404
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(1,943)	(49)	3,623	391	(1,418)	604
Recognized on hedged item	1,911	32	(3,143)	(388)	1,490	(98)
Net recognized on fair value hedges (ineffective portion)	$ (32)	(17)	480	3	72	506

(1) Includes $(13) million, $(7) million and $(1) million for years ended December 31, 2016, 2015, and 2014, respectively, of the time value component recognized as net interest income (expense) on forward derivatives hedging foreign currency that were excluded from the assessment of hedge effectiveness.

Cash Flow Hedges

We use 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 benchmark interest rate.

Based upon current interest rates, we estimate that $644 million (pre tax) of deferred net gains on derivatives in OCI at December 31, 2016, will be reclassified into net interest income during the next twelve months. Future changes to interest rates may significantly change actual amounts reclassified to earnings. We are hedging our exposure to the variability of future cash flows for all forecasted transactions for a maximum of 6 years.

Table 16.4 shows the net gains (losses) recognized related to derivatives in cash flow hedging relationships.

Table 16.4: Derivatives in Cash Flow Hedging Relationships

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Unrealized gains (losses) (pre tax) recognized in OCI	$ **177**	1,549	952
Realized gains (losses) (pre tax) reclassified from cumulative OCI into net income (1)	**1,029**	1,089	545
Gains (losses) (pre tax) recognized in noninterest income for hedge ineffectiveness (2)	**(1)**	1	2

(1) See Note 23 (Other Comprehensive Income) for detail on components of net income.
(2) None of the change in value of the derivatives was excluded from the assessment of hedge effectiveness.

Derivatives Not Designated as Hedging Instruments

We use economic hedge derivatives to hedge the risk of changes in the fair value of certain residential MHFS, certain loans held for investment, residential MSRs measured at fair value, derivative loan commitments and other interests held. We also use economic hedge derivatives to mitigate the periodic earnings volatility caused by ineffectiveness recognized on our fair value accounting hedges. The resulting gain or loss on these economic hedge derivatives is reflected in mortgage banking noninterest income, net gains (losses) from equity investments and other noninterest income.

The derivatives used to hedge MSRs measured at fair value, which include swaps, swaptions, constant maturity mortgages, forwards, Eurodollar and Treasury futures and options contracts, resulted in net derivative gains of $261 million in 2016, net derivative gains of $671 million in 2015 and net derivative gains of $3.5 billion in 2014, which are included in mortgage banking noninterest income. The aggregate fair value of these derivatives was a net liability of $617 million at December 31, 2016 and a net liability of $3 million at December 31, 2015. The change in fair value of these derivatives for each period end is due to changes in the underlying market indices and interest rates as well as the purchase and sale of derivative financial instruments throughout the period as part of our dynamic MSR risk management process.

Interest rate lock commitments for mortgage loans that we intend to sell are considered derivatives. Our interest rate exposure on these derivative loan commitments, as well as residential MHFS, is hedged with economic hedge derivatives such as swaps, forwards and options, Eurodollar futures and options, and Treasury futures, forwards and options contracts. The derivative loan commitments, economic hedge derivatives and residential MHFS are carried at fair value with changes in fair value included in mortgage banking noninterest income. For the fair value measurement of interest rate lock commitments we include, at inception and during the life of the loan commitment, the expected net future cash flows related to the associated servicing of the loan. Fair value changes subsequent to inception are based on changes in fair value of the underlying loan resulting from the exercise of the commitment and changes in the probability that the loan will not fund within the terms of the commitment (referred to as a fall-out factor). The value of the underlying loan is affected by changes in interest rates and the passage of time. However, changes in investor demand can also cause changes in the value of the underlying loan value that cannot be hedged. The aggregate fair value of derivative loan commitments on the balance sheet was a net liability of $6 million and a net asset of $56 million at December 31, 2016 and 2015, respectively, and is included in the caption "Interest rate contracts" under "Customer accommodation trading and other derivatives" in Table 16.1.

We also enter into various derivatives as an accommodation to our customers as part of our trading businesses. These derivatives are not linked to specific assets and liabilities on the balance sheet or to forecasted transactions in an accounting hedge relationship and, therefore, do not qualify for hedge accounting. We also enter into derivatives for risk management that do not otherwise qualify for hedge accounting. They are carried at fair value with changes in fair value recorded in noninterest income.

Customer accommodation trading and other derivatives also include embedded derivatives that are required to be accounted for separately from their host contract. We periodically issue hybrid long-term notes and CDs where the performance of the hybrid instrument notes is linked to an equity, commodity or currency index, or basket of such indices. These notes contain explicit terms that affect some or all of the cash flows or the value of the note in a manner similar to a derivative instrument and therefore are considered to contain an "embedded" derivative instrument. The indices on which the performance of the hybrid instrument is calculated are not clearly and closely related to the host debt instrument. The "embedded" derivative is separated from the host contract and accounted for as a derivative. Additionally, we may invest in hybrid instruments that contain embedded derivatives, such as credit derivatives, that are not clearly and closely related to the host contract. In such instances, we either elect fair value option for the hybrid instrument or separate the embedded derivative from the host contract and account for the host contract and derivative separately.

Table 16.5 shows the net gains recognized in the income statement related to derivatives not designated as hedging instruments.

Table 16.5: Derivatives Not Designated as Hedging Instruments

		Year ended December 31,	
(in millions)	**2016**	2015	2014
Net gains (losses) recognized on economic hedge derivatives:			
Interest rate contracts			
Recognized in noninterest income:			
Mortgage banking (1)	$ **1,029**	723	1,759
Other (2)	**(51)**	(42)	(230)
Equity contracts (3)	**114**	(393)	(469)
Foreign exchange contracts (2)	**954**	496	758
Credit contracts (2)	**21**	—	(1)
Subtotal (4)	**2,067**	784	1,817
Net gains (losses) recognized on customer accommodation trading and other derivatives:			
Interest rate contracts			
Recognized in noninterest income:			
Mortgage banking (5)	**818**	941	1,350
Other (6)	**255**	265	(855)
Commodity contracts (6)	**216**	88	77
Equity contracts (6)	**(1,643)**	563	(719)
Foreign exchange contracts (6)	**1,077**	812	593
Credit contracts (6)	**(105)**	44	7
Other (6)	**11**	(15)	(39)
Subtotal	**629**	2,698	414
Net gains recognized related to derivatives not designated as hedging instruments	$ **2,696**	3,482	2,231

(1) Reflected in mortgage banking noninterest income including gains (losses) on the derivatives used as economic hedges of MSRs measured at fair value, interest rate lock commitments and mortgages held for sale.
(2) Included in other noninterest income.
(3) Included in net gains (losses) from equity investments and other noninterest income.
(4) Includes hedging losses of $(8) million, $(24) million, and $(175) million for the years ended December 31, 2016, 2015, and 2014, respectively, which partially offset hedge accounting ineffectiveness.
(5) Reflected in mortgage banking noninterest income including gains (losses) on interest rate lock commitments and net gains from trading activities in noninterest income.
(6) Included in net gains from trading activities in noninterest income.

Credit Derivatives

Credit derivative contracts are arrangements whose value is derived from the transfer of credit risk of a reference asset or entity from one party (the purchaser of credit protection) to another party (the seller of credit protection). We use credit derivatives to assist customers with their risk management objectives. We may also use credit derivatives in structured product transactions or liquidity agreements written to special purpose vehicles. The maximum exposure of sold credit derivatives is managed through posted collateral, purchased credit derivatives and similar products in order to achieve our desired credit risk profile. This credit risk management provides an ability to recover a significant portion of any amounts that would be paid under the sold credit derivatives. We would be required to perform under the 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 16.6 provides details of sold and purchased credit derivatives.

Table 16.6: Sold and Purchased Credit Derivatives

		Notional amount					
(in millions)	Fair value liability	Protection sold (A)	Protection sold - non-investment grade	Protection purchased with identical underlyings (B)	Net protection sold (A)-(B)	Other protection purchased	Range of maturities
December 31, 2016							
Credit default swaps on:							
Corporate bonds	**$ 22**	**4,324**	**1,704**	**3,060**	**1,264**	**1,804**	**2017 - 2026**
Structured products	**193**	**405**	**333**	**295**	**110**	**79**	**2020 - 2047**
Credit protection on:							
Default swap index	**—**	**1,515**	**257**	**139**	**1,376**	**3,668**	**2017 - 2021**
Commercial mortgage-backed securities index	**156**	**627**	**—**	**584**	**43**	**71**	**2047 - 2058**
Asset-backed securities index	**17**	**45**	**—**	**40**	**5**	**187**	**2045 - 2046**
Other	**1**	**3,567**	**3,568**	**—**	**3,567**	**10,519**	**2017 - 2047**
Total credit derivatives	**$ 389**	**10,483**	**5,862**	**4,118**	**6,365**	**16,328**	
December 31, 2015							
Credit default swaps on:							
Corporate bonds	$ 44	4,838	1,745	3,602	1,236	2,272	2016 - 2025
Structured products	275	598	463	395	203	142	2017 - 2047
Credit protection on:							
Default swap index	—	1,727	370	1,717	10	960	2016 - 2020
Commercial mortgage-backed securities index	203	822	—	766	56	316	2047 - 2057
Asset-backed securities index	18	47	—	1	46	71	2045 - 2046
Other	1	2,512	2,512	—	2,512	7,776	2016 - 2025
Total credit derivatives	$ 541	10,544	5,090	6,481	4,063	11,537	

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 an extremely 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 $12.8 billion at December 31, 2016, and $12.3 billion at December 31, 2015, respectively, for which we posted $8.9 billion and $8.8 billion, respectively, in collateral in the normal course of business. If the credit rating of our debt had been downgraded below investment grade, which is the credit-risk-related contingent feature that if triggered requires the maximum amount of collateral to be posted, on December 31, 2016, or December 31, 2015, we would have been required to post additional collateral of $4.0 billion or $3.6 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 17: 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 the recurring Table 17.2 in this Note. From time to time, we may be required to record at fair value other assets on a nonrecurring basis. These nonrecurring fair value adjustments typically involve application of LOCOM accounting or write-downs of individual assets. Assets recorded on a nonrecurring basis are presented in Table 17.12 in this Note.

Following is a discussion of the fair value hierarchy and the valuation methodologies used for assets and liabilities recorded at fair value on a recurring or nonrecurring basis and for estimating fair value for financial instruments not recorded at fair value.

Fair Value Hierarchy

We group our assets and liabilities measured at fair value in three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

- Level 1 – Valuation is based upon quoted prices for identical instruments traded in active markets.
- Level 2 – Valuation is based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.
- Level 3 – Valuation is generated from techniques that use significant assumptions that are not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

In accordance with new accounting guidance that we adopted effective January 1, 2016, we do not classify an investment in the fair value hierarchy if we use the non-published net asset value (NAV) per share (or its equivalent) that has been communicated to us as an investor as a practical expedient to measure fair value. We generally use NAV per share as the fair value measurement for certain nonmarketable equity fund investments. This guidance was required to be applied retrospectively. Accordingly, certain prior period fair value disclosures have been revised to conform with current period presentation. Marketable equity investments with published NAVs continue to be classified in the fair value hierarchy.

In the determination of the classification of financial instruments in Level 2 or Level 3 of the fair value hierarchy, we consider all available information, including observable market data, indications of market liquidity and orderliness, and our understanding of the valuation techniques and significant inputs used. For securities in inactive markets, we use a predetermined percentage to evaluate the impact of fair value adjustments derived from weighting both external and internal indications of value to determine if the instrument is classified as Level 2 or Level 3. Otherwise, the classification of Level 2 or Level 3 is based upon the specific facts and circumstances of each instrument or instrument category and judgments are made regarding the significance of the Level 3 inputs to the instruments' fair value measurement in its entirety. If Level 3 inputs are considered significant, the instrument is classified as Level 3.

Assets

SHORT-TERM FINANCIAL ASSETS Short-term financial assets include cash and due from banks, federal funds sold and securities purchased under resale agreements and due from customers on acceptances. These assets are carried at historical cost. The carrying amount is a reasonable estimate of fair value because of the relatively short time between the origination of the instrument and its expected realization.

TRADING ASSETS AND INVESTMENT SECURITIES Trading assets and available-for-sale securities are recorded at fair value on a recurring basis. Other investment securities classified as held-to-maturity are subject to impairment and fair value measurement if fair value declines below amortized cost and we do not expect to recover the entire amortized cost basis of the debt security. Fair value measurement is based upon various sources of market pricing. We use quoted prices in active markets, where available, and classify such instruments within Level 1 of the fair value hierarchy. Examples include exchange-traded equity securities and some highly liquid government securities, such as U.S. Treasuries. When instruments are traded in secondary markets and quoted market prices do not exist for such securities, we generally rely on internal valuation techniques or on prices obtained from vendors (predominantly third-party pricing services), and accordingly, we classify these instruments as Level 2 or 3.

Trading securities are valued using internal trader prices that are subject to price verification procedures. The fair values derived using internal valuation techniques are verified against multiple pricing sources, including prices obtained from third-party vendors. Vendors compile prices from various sources and often apply matrix pricing for similar securities when no price is observable. We review pricing methodologies provided by the vendors in order to determine if observable market information is being used versus unobservable inputs. When evaluating the appropriateness of an internal trader price compared with vendor prices, considerations include the range and quality of vendor prices. Vendor prices are used to ensure the reasonableness of a trader price; however, valuing financial instruments involves judgments acquired from knowledge of a particular market. If a trader asserts that a vendor price is not reflective of market value, justification for using the trader price, including recent sales activity where possible, must be provided to and approved by the appropriate levels of management.

Similarly, while investment securities traded in secondary markets are typically valued using unadjusted vendor prices or vendor prices adjusted by weighting them with internal discounted cash flow techniques, these prices are reviewed and, if deemed inappropriate by a trader who has the most knowledge of a particular market, can be adjusted. These investment securities, which include those measured using unadjusted vendor prices, are generally classified as Level 2 and typically involve using quoted market prices for the same or similar securities, pricing models, discounted cash flow analyses using significant inputs observable in the market where available or a combination of multiple valuation techniques. Examples include certain residential and commercial MBS, other asset-backed securities municipal bonds, U.S. government and agency MBS, and corporate debt securities.

Security fair value measurements using significant inputs that are unobservable in the market due to limited activity or a less liquid market are classified as Level 3 in the fair value hierarchy. Such measurements include securities valued using internal models or a combination of multiple valuation techniques where the unobservable inputs are significant to the overall fair value measurement. Securities classified as Level 3 include certain residential and commercial MBS, other asset-backed securities, CDOs and certain CLOs, and certain residual and retained interests in residential mortgage loan securitizations. We value CDOs using the prices of similar instruments, the pricing of completed or pending third-party transactions or the pricing of the underlying collateral within the CDO. Where vendor prices are not readily available, we use management's best estimate.

MORTGAGES HELD FOR SALE (MHFS) MHFS are carried at LOCOM or at fair value. We carry substantially all of our residential MHFS portfolio at fair value. Fair value is based on quoted market prices, where available, or the prices for other mortgage whole loans with similar characteristics. As necessary, these prices are adjusted for typical securitization activities, including servicing value, portfolio composition, market conditions and liquidity. Predominantly all of our MHFS are classified as Level 2. For the portion where market pricing data is not available, we use a discounted cash flow model to estimate fair value and, accordingly, classify as Level 3.

LOANS HELD FOR SALE (LHFS) LHFS are carried at LOCOM or at fair value. The fair value of LHFS is based on current offerings in secondary markets for loans with similar characteristics. As such, we classify those loans subjected to nonrecurring fair value adjustments as Level 2.

LOANS For information on how we report the carrying value of loans, including PCI loans, see Note 1 (Summary of Significant Accounting Policies). Although most loans are not recorded at fair value on a recurring basis, reverse mortgages are recorded at fair value on a recurring basis. In addition, we record nonrecurring fair value adjustments to loans to reflect partial write-downs that are based on the observable market price of the loan or current appraised value of the collateral.

We provide fair value estimates in this disclosure for loans that are not recorded at fair value on a recurring or nonrecurring basis. Those estimates differentiate loans based on their financial characteristics, such as product classification, loan category, pricing features and remaining maturity. Prepayment and credit loss estimates are evaluated by product and loan rate.

The fair value of commercial loans is calculated by discounting contractual cash flows, adjusted for credit loss estimates, using discount rates that are appropriate for loans with similar characteristics and remaining maturity. For real estate 1-4 family first and junior lien mortgages, we calculate fair value by discounting contractual cash flows, adjusted for prepayment and credit loss estimates, using discount rates based on current industry pricing (where readily available) or our own estimate of an appropriate discount rate for loans of similar size, type, remaining maturity and repricing characteristics.

The estimated fair value of consumer loans is generally calculated by discounting the contractual cash flows, adjusted for prepayment and credit loss estimates, based on the current rates we offer for loans with similar characteristics.

Loan commitments, standby letters of credit and commercial and similar letters of credit generate ongoing fees at our current pricing levels, which are recognized over the term of the commitment period. In situations where the credit quality of the counterparty to a commitment has declined, we record an allowance. A reasonable estimate of the fair value of these instruments is the carrying value of deferred fees plus the allowance for unfunded credit commitments.

DERIVATIVES Quoted market prices are available and used for our exchange-traded derivatives, such as certain interest rate futures and option contracts, which we classify as Level 1. However, substantially all of our derivatives are traded in over-the-counter (OTC) markets where quoted market prices are not always readily available. Therefore we value most OTC derivatives using internal valuation techniques. Valuation techniques and inputs to internally-developed models depend on the type of derivative and nature of the underlying rate, price or index upon which the derivative's value is based. Key inputs can include yield curves, credit curves, foreign exchange rates, prepayment rates, volatility measurements and correlation of such inputs. Where model inputs can be observed in a liquid market and the model does not require significant judgment, such derivatives are typically classified as Level 2 of the fair value hierarchy. Examples of derivatives classified as Level 2 include generic interest rate swaps, foreign currency swaps, commodity swaps, and certain option and forward contracts. When instruments are traded in less liquid markets and significant inputs are unobservable, such derivatives are classified as Level 3. Examples of derivatives classified as Level 3 include complex and highly structured derivatives, certain credit default swaps, interest rate lock commitments written for our mortgage loans that we intend to sell and long-dated equity options where volatility is not observable. Additionally, significant judgments are required when classifying financial instruments within the fair value hierarchy, particularly between Level 2 and 3, as is the case for certain derivatives.

MSRs AND CERTAIN OTHER INTERESTS HELD IN SECURITIZATIONS MSRs and certain other interests held in securitizations (e.g., interest-only strips) do not trade in an active market with readily observable prices. Accordingly, we determine the fair value of MSRs using a valuation model that calculates the present value of estimated future net servicing income cash flows. The model incorporates assumptions that market participants use in estimating future net servicing income cash flows, including estimates of prepayment speeds (including housing price volatility), discount rates, default rates, cost to service (including delinquency and foreclosure costs), escrow account earnings, contractual servicing fee income, ancillary income and late fees. Commercial MSRs are carried at LOCOM and, therefore, can be subject to fair value measurements on a nonrecurring basis. Changes in the fair value of MSRs occur primarily due to the collection/realization of expected cash flows as well as changes in valuation inputs and assumptions. For other interests held in securitizations (such as interest-only strips), we use a valuation model that calculates the present value of estimated future cash flows. The model incorporates our own estimates of assumptions market participants use in determining the fair value, including estimates of prepayment speeds, discount rates, defaults and contractual fee income. Interest-only strips are recorded as trading assets. Our valuation approach is validated by our internal valuation model validation group. Fair value measurements of our MSRs and interest-only strips use significant unobservable inputs and, accordingly, we classify them as Level 3.

FORECLOSED ASSETS Foreclosed assets are carried at net realizable value, which represents fair value less costs to sell. Fair value is generally based upon independent market prices or appraised values of the collateral and, accordingly, we classify foreclosed assets as Level 2.

NONMARKETABLE EQUITY INVESTMENTS For certain equity securities that are not publicly traded, we have elected the fair value option, and we use a market comparable pricing technique to estimate their fair value. The remaining nonmarketable equity investments include low income housing tax credit investments, Federal Reserve Bank and Federal Home Loan Bank (FHLB) stock, and private equity investments that are recorded under the cost or equity method of accounting. We estimate fair value to record OTTI write-downs on a nonrecurring basis. Additionally, we provide fair value estimates in this disclosure for cost method investments that are not measured at fair value on a recurring or nonrecurring basis.

Federal Bank stock carrying values approximate fair value. Of the remaining cost or equity method investments for which we determine fair value, we estimate the fair value using all available information and consider the range of potential inputs including discounted cash flow models, transaction prices, trading multiples of comparable public companies, and entry level multiples. Where appropriate these metrics are adjusted to account for comparative differences with public companies and for company-specific issues like liquidity or marketability. For investments in private equity funds, we generally use the NAV provided by the fund sponsor as a practical expedient to measure fair value. In some cases, NAVs may require adjustments based on certain unobservable inputs.

Liabilities

DEPOSIT LIABILITIES Deposit liabilities are carried at historical cost. The fair value of deposits with no stated maturity, such as noninterest-bearing demand deposits, interest-bearing checking, and market rate and other savings, is equal to the amount payable on demand at the measurement date. The fair value of other time deposits is calculated based on the discounted value of contractual cash flows. The discount rate is estimated using the rates currently offered for like wholesale deposits with similar remaining maturities.

SHORT-TERM FINANCIAL LIABILITIES Short-term financial liabilities are carried at historical cost and include federal funds purchased and securities sold under repurchase agreements, commercial paper and other short-term borrowings. The carrying amount is a reasonable estimate of fair value because of the relatively short time between the origination of the instrument and its expected realization.

OTHER LIABILITIES Other liabilities recorded at fair value on a recurring basis primarily include short sale liabilities. Short sale liabilities are predominantly classified as either Level 1 or Level 2, generally depending upon whether the underlying securities have readily obtainable quoted prices in active exchange markets.

LONG-TERM DEBT Long-term debt is generally carried at amortized cost. For disclosure, we are required to estimate the fair value of long-term debt and generally do so using the discounted cash flow method. Contractual cash flows are discounted using rates currently offered for new notes with similar remaining maturities and, as such, these discount rates include our current spread levels.

Level 3 Asset and Liability Valuation Processes

We generally determine fair value of our Level 3 assets and liabilities by using internally-developed models and, to a lesser extent, prices obtained from vendors, which predominantly consist of third-party pricing services. Our valuation processes vary depending on which approach is utilized.

INTERNAL MODEL VALUATIONS Our internally-developed models primarily use discounted cash flow techniques. Use of such techniques requires determining relevant inputs, some of which are unobservable. Unobservable inputs are generally derived from historic performance of similar assets or determined from previous market trades in similar instruments. These unobservable inputs usually consist of discount rates, default rates, loss severity upon default, volatilities, correlations and prepayment rates, which are inherent within our Level 3 instruments. Such inputs can be correlated to similar portfolios with known historic experience or recent trades where particular unobservable inputs may be implied, but due to the nature of various inputs being reflected within a particular trade, the value of each input is considered unobservable. We attempt to correlate each unobservable input to historic experience and other third-party data where available.

Internal valuation models are subject to review prescribed within our model risk management policies and procedures, which include model validation. The purpose of model validation includes ensuring the model is appropriate for its intended use and the appropriate controls exist to help mitigate risk of invalid valuations. Model validation assesses the adequacy and appropriateness of the model, including reviewing its key components, such as inputs, processing components, logic or theory, output results and supporting model documentation. Validation also includes ensuring significant unobservable model inputs are appropriate given observable market transactions or other market data within the same or similar asset classes. This process ensures modeled approaches are appropriate given similar product valuation techniques and are in line with their intended purpose.

We have ongoing monitoring procedures in place for our Level 3 assets and liabilities that use such internal valuation models. These procedures, which are designed to provide reasonable assurance that models continue to perform as expected after approved, include:

- ongoing analysis and benchmarking to market transactions and other independent market data (including pricing vendors, if available);
- back-testing of modeled fair values to actual realized transactions; and
- review of modeled valuation results against expectations, including review of significant or unusual value fluctuations.

We update model inputs and methodologies periodically to reflect these monitoring procedures. Additionally, procedures and controls are in place to ensure existing models are subject to periodic reviews, and we perform full model revalidations as necessary.

All internal valuation models are subject to ongoing review by business-unit-level management, and all models are subject to additional oversight by a corporate-level risk management department. Corporate oversight responsibilities include evaluating the adequacy of business unit risk management programs, maintaining company-wide model validation policies and standards and reporting the results of these activities to management and our Corporate Model Risk Committee. This committee consists of senior executive management and reports on top model risk issues to the Company's Risk Committee of the Board.

VENDOR-DEVELOPED VALUATIONS In certain limited circumstances we obtain pricing from third-party vendors for the value of our Level 3 assets or liabilities. We have processes in place to approve such vendors to ensure information obtained and valuation techniques used are appropriate. Once these vendors are approved to provide pricing information, we monitor and review the results to ensure the fair values are reasonable and in line with market experience in similar asset classes. While the input amounts used by the pricing vendor in determining fair value are not provided, and therefore unavailable for our review, we do perform one or more of the following procedures to validate the prices received:

- comparison to other pricing vendors (if available);
- variance analysis of prices;
- corroboration of pricing by reference to other independent market data, such as market transactions and relevant benchmark indices;
- review of pricing by Company personnel familiar with market liquidity and other market-related conditions; and
- investigation of prices on a specific instrument-by-instrument basis.

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 instruments where we utilize vendor prices to record the price of an instrument, we perform additional procedures (see the "Vendor-Developed Valuations" section). Methodologies employed, controls relied upon and inputs used by third-party pricing vendors are subject to additional review when such services are provided. This review may consist of, in part, obtaining and evaluating control reports issued and pricing methodology materials distributed.

Table 17.1 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 17.1.

Table 17.1: Fair Value Measurements by Brokers or Third-Party Pricing Services

		Brokers			Third-party pricing services	
(in millions)	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
December 31, 2016						
Trading assets	$ —	—	—	899	60	—
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	22,870	2,949	—
Securities of U.S. states and political subdivisions	—	—	—	—	49,837	208
Mortgage-backed securities	—	171	—	—	176,923	92
Other debt securities (1)	—	450	968	—	49,162	54
Total debt securities	—	621	968	22,870	278,871	354
Total marketable equity securities	—	—	—	—	358	—
Total available-for-sale securities	—	621	968	22,870	279,229	354
Derivative assets	—	—	—	22	—	—
Derivative liabilities	—	—	—	(109)	(1)	—
Other liabilities (2)	—	—	—	—	—	—
December 31, 2015						
Trading assets (3)	$ —	—	—	700	5	—
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	—	—	—	32,868	3,382	—
Securities of U.S. states and political subdivisions	—	—	—	—	48,443	51
Mortgage-backed securities	—	226	—	—	126,525	73
Other debt securities (1)	—	503	409	—	48,721	345
Total debt securities	—	729	409	32,868	227,071	469
Total marketable equity securities	—	—	—	—	484	—
Total available-for-sale securities	—	729	409	32,868	227,555	469
Derivative assets	—	—	—	—	224	—
Derivative liabilities	—	—	—	—	(221)	—
Other liabilities (2)	—	—	—	—	(1)	—

(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.
(3) The Level 1 third-party pricing services balance for trading assets has been revised to correct the amount previously reported.

Assets and Liabilities Recorded at Fair Value on a Recurring Basis

Table 17.2 presents the balances of assets and liabilities recorded at fair value on a recurring basis.

Table 17.2: Fair Value on a Recurring Basis

(in millions)	Level 1	Level 2	Level 3	Netting	Total
December 31, 2016					
Trading assets					
Securities of U.S. Treasury and federal agencies	$ 14,950	2,710	—	—	17,660
Securities of U.S. states and political subdivisions	—	2,910	3	—	2,913
Collateralized loan obligations	—	501	309	—	810
Corporate debt securities	—	9,481	34	—	9,515
Mortgage-backed securities	—	20,254	—	—	20,254
Asset-backed securities	—	1,128	—	—	1,128
Equity securities	20,462	290	—	—	20,752
Total trading securities (1)	35,412	37,274	346	—	73,032
Other trading assets	—	1,337	28	—	1,365
Total trading assets	35,412	38,611	374	—	74,397
Securities of U.S. Treasury and federal agencies	22,870	2,949	—	—	25,819
Securities of U.S. states and political subdivisions	—	49,961	1,140 (2)	—	51,101
Mortgage-backed securities:					
Federal agencies	—	161,230	—	—	161,230
Residential	—	7,815	1	—	7,816
Commercial	—	8,411	91	—	8,502
Total mortgage-backed securities	—	177,456	92	—	177,548
Corporate debt securities	58	10,967	432	—	11,457
Collateralized loan and other debt obligations (3)	—	34,141	879 (2)	—	35,020
Asset-backed securities:					
Automobile loans and leases	—	9	—	—	9
Home equity loans	—	327	—	—	327
Other asset-backed securities	—	4,909	962 (2)	—	5,871
Total asset-backed securities	—	5,245	962	—	6,207
Other debt securities	—	1	—	—	1
Total debt securities	22,928	280,720	3,505	—	307,153
Marketable equity securities:					
Perpetual preferred securities	112	357	—	—	469
Other marketable equity securities	741	1	—	—	742
Total marketable equity securities	853	358	—	—	1,211
Total available-for-sale securities	23,781	281,078	3,505	—	308,364
Mortgages held for sale	—	21,057	985	—	22,042
Loans	—	—	758	—	758
Mortgage servicing rights (residential)	—	—	12,959	—	12,959
Derivative assets:					
Interest rate contracts	44	64,986	238	—	65,268
Commodity contracts	—	3,020	37	—	3,057
Equity contracts	1,314	2,997	1,047	—	5,358
Foreign exchange contracts	22	10,843	29	—	10,894
Credit contracts	—	280	272	—	552
Netting	—	—	—	(70,631) (4)	(70,631)
Total derivative assets	1,380	82,126	1,623	(70,631)	14,498
Other assets – excluding nonmarketable equity investments at NAV	—	16	3,259	—	3,275
Total assets included in the fair value hierarchy	$ 60,573	422,888	23,463	(70,631)	436,293
Other assets – nonmarketable equity investments at NAV (5)					—
Total assets recorded at fair value					436,293
Derivative liabilities:					
Interest rate contracts	$ (45)	(65,047)	(117)	—	(65,209)
Commodity contracts	—	(2,537)	(14)	—	(2,551)
Equity contracts	(919)	(3,879)	(1,314)	—	(6,112)
Foreign exchange contracts	(109)	(12,616)	(17)	—	(12,742)
Credit contracts	—	(332)	(195)	—	(527)
Other derivative contracts	—	—	(47)	—	(47)
Netting	—	—	—	72,696 (4)	72,696
Total derivative liabilities	(1,073)	(84,411)	(1,704)	72,696	(14,492)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(9,722)	(701)	—	—	(10,423)
Corporate debt securities	—	(4,063)	—	—	(4,063)
Equity securities	(1,795)	—	—	—	(1,795)
Other securities	—	(98)	—	—	(98)
Total short sale liabilities	(11,517)	(4,862)	—	—	(16,379)
Other liabilities	—	—	(4)	—	(4)
Total liabilities recorded at fair value	$ (12,590)	(89,273)	(1,708)	72,696	(30,875)

(1) Net gains from trading activities recognized in the income statement for the year ended December 31, 2016, include $820 million in net unrealized gains on trading securities held at December 31, 2016.
(2) Balances consist of securities that are mostly investment grade based on ratings received from the ratings agencies or internal credit grades categorized as investment grade if external ratings are not available. The securities are classified as Level 3 due to limited market activity.
(3) Includes collateralized debt obligations of $847 million.
(4) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 16 (Derivatives) for additional information.
(5) Consists of certain nonmarketable equity investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

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(in millions)	Level 1	Level 2	Level 3	Netting	Total
December 31, 2015					
Trading assets					
Securities of U.S. Treasury and federal agencies	$ 13,357	3,469	—	—	16,826
Securities of U.S. states and political subdivisions	—	1,667	8	—	1,675
Collateralized loan obligations	—	346	343	—	689
Corporate debt securities	—	7,909	56	—	7,965
Mortgage-backed securities	—	20,619	—	—	20,619
Asset-backed securities	—	1,005	—	—	1,005
Equity securities	15,010	101	—	—	15,111
Total trading securities (1)	28,367	35,116	407	—	63,890
Other trading assets	—	891	34	—	925
Total trading assets	28,367	36,007	441	—	64,815
Securities of U.S. Treasury and federal agencies	32,868	3,382	—	—	36,250
Securities of U.S. states and political subdivisions	—	48,490	1,500 (2)	—	49,990
Mortgage-backed securities:					
Federal agencies	—	104,546	—	—	104,546
Residential	—	8,557	1	—	8,558
Commercial	—	14,015	73	—	14,088
Total mortgage-backed securities	—	127,118	74	—	127,192
Corporate debt securities	54	14,952	405	—	15,411
Collateralized loan and other debt obligations (3)	—	30,402	565 (2)	—	30,967
Asset-backed securities:					
Automobile loans and leases	—	15	— (2)	—	15
Home equity loans	—	414	—	—	414
Other asset-backed securities	—	4,290	1,182 (2)	—	5,472
Total asset-backed securities	—	4,719	1,182	—	5,901
Other debt securities	—	10	—	—	10
Total debt securities	32,922	229,073	3,726	—	265,721
Marketable equity securities:					
Perpetual preferred securities	434	484	— (2)	—	918
Other marketable equity securities	719	—	—	—	719
Total marketable equity securities	1,153	484	—	—	1,637
Total available-for-sale securities	34,075	229,557	3,726	—	267,358
Mortgages held for sale	—	12,457	1,082	—	13,539
Loans	—	—	5,316	—	5,316
Mortgage servicing rights (residential)	—	—	12,415	—	12,415
Derivative assets:					
Interest rate contracts	16	62,390	319	—	62,725
Commodity contracts	—	4,623	36	—	4,659
Equity contracts	3,726	2,907	966	—	7,599
Foreign exchange contracts	48	8,899	—	—	8,947
Credit contracts	—	375	275	—	650
Netting	—	—	—	(66,924) (4)	(66,924)
Total derivative assets	3,790	79,194	1,596	(66,924)	17,656
Other assets – excluding nonmarketable equity investments at NAV	—	—	3,065	—	3,065
Total assets included in the fair value hierarchy	$ 66,232	357,215	27,641	(66,924)	384,164
Other assets – nonmarketable equity investments at NAV (5)					23
Total assets recorded at fair value					384,187
Derivative liabilities:					
Interest rate contracts	$ (41)	(57,905)	(31)	—	(57,977)
Commodity contracts	—	(5,495)	(24)	—	(5,519)
Equity contracts	(704)	(3,027)	(1,077)	—	(4,808)
Foreign exchange contracts	(37)	(10,896)	—	—	(10,933)
Credit contracts	—	(351)	(278)	—	(629)
Other derivative contracts	—	—	(58)	—	(58)
Netting	—	—	—	66,004 (4)	66,004
Total derivative liabilities	(782)	(77,674)	(1,468)	66,004	(13,920)
Short sale liabilities:					
Securities of U.S. Treasury and federal agencies	(8,621)	(1,074)	—	—	(9,695)
Corporate debt securities	—	(4,209)	—	—	(4,209)
Equity securities	(1,692)	(4)	—	—	(1,696)
Other securities	—	(70)	—	—	(70)
Total short sale liabilities	(10,313)	(5,357)	—	—	(15,670)
Other liabilities	—	—	(30)	—	(30)
Total liabilities recorded at fair value	$ (11,095)	(83,031)	(1,498)	66,004	(29,620)

(1) Net gains from trading activities recognized in the income statement for the year ended December 31, 2015, include $1.0 billion in net unrealized losses on trading securities held at December 31, 2015.
(2) Balances consist of securities that are mostly investment grade based on ratings received from the ratings agencies or internal credit grades categorized as investment grade if external ratings are not available. The securities are classified as Level 3 due to limited market activity.
(3) Includes collateralized debt obligations of $257 million.
(4) Represents balance sheet netting of derivative asset and liability balances and related cash collateral. See Note 16 (Derivatives) for additional information.
(5) Consists of certain nonmarketable equity investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

Changes in Fair Value Levels

We monitor the availability of observable market data to assess the appropriate classification of financial instruments within the fair value hierarchy and transfer between Level 1, Level 2, and Level 3 accordingly. Observable market data includes but is not limited to quoted prices and market transactions. Changes in economic conditions or market liquidity generally will drive changes in availability of observable market data. Changes in availability of observable market data, which also may result in changing the valuation technique used, are generally the cause of transfers between Level 1, Level 2, and Level 3.

Transfers into and out of Level 1, Level 2, and Level 3 for the periods presented are provided within Table 17.3. The amounts reported as transfers represent the fair value as of the beginning of the quarter in which the transfer occurred.

Table 17.3: Transfers Between Fair Value Levels

	Transfers Between Fair Value Levels						
	Level 1		Level 2		Level 3 (1)		
(in millions)	In	Out	In	Out	In	Out	Total
Year ended December 31, 2016							
Trading assets	**$ 55**	**(48)**	**61**	**(56)**	**1**	**(13)**	**—**
Available-for-sale securities	**—**	**—**	**481**	**(80)**	**80**	**(481)**	**—**
Mortgages held for sale	**—**	**—**	**17**	**(98)**	**98**	**(17)**	**—**
Loans	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Net derivative assets and liabilities (3)	**—**	**—**	**(51)**	**(41)**	**41**	**51**	**—**
Short sale liabilities	**(1)**	**1**	**(1)**	**1**	**—**	**—**	**—**
Total transfers	**$ 54**	**(47)**	**507**	**(274)**	**220**	**(460)**	**—**
Year ended December 31, 2015							
Trading assets	$ 15	(9)	103	(28)	13	(94)	—
Available-for-sale securities (2)	—	—	76	(8)	8	(76)	—
Mortgages held for sale	—	—	471	(194)	194	(471)	—
Loans	—	—	—	—	—	—	—
Net derivative assets and liabilities (3)	—	—	48	15	(15)	(48)	—
Short sale liabilities	(1)	1	(1)	1	—	—	—
Total transfers	$ 14	(8)	697	(214)	200	(689)	—
Year ended December 31, 2014							
Trading assets	$ —	(11)	70	(31)	31	(59)	—
Available-for-sale securities	—	(8)	370	(148)	148	(362)	—
Mortgages held for sale	—	—	229	(440)	440	(229)	—
Loans	—	—	49	(270)	270	(49)	—
Net derivative assets and liabilities (3)	—	—	(134)	20	(20)	134	—
Short sale liabilities	—	—	—	—	—	—	—
Total transfers	$ —	(19)	584	(869)	869	(565)	—

(1) All transfers in and out of Level 3 are disclosed within the recurring Level 3 rollforward tables in this Note.
(2) Transfers out of Level 3 exclude $640 million in auction rate perpetual preferred equity securities that were transferred in second quarter 2015 from available-for-sale securities to nonmarketable equity investments in other assets. See Note 7 (Premises, Equipment, Lease Commitments and Other Assets) for additional information.
(3) Includes transfers of net derivative assets and net derivative liabilities between levels due to changes in observable market data.

Note 17: Fair Values of Assets and Liabilities *(continued)*

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2016, are presented in Table 17.4.

Table 17.4: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – 2016

		Total net gains (losses) included in							
(in millions)	Balance, beginning of period	Net income	Other compre-hensive income	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end	(2)
Year ended December 31, 2016									
Trading assets:									
Securities of U.S. states and political subdivisions	$ 8	—	—	(5)	—	—	3	—	
Collateralized loan obligations	343	(38)	—	15	—	(11)	309	(42)	
Corporate debt securities	56	(7)	—	(13)	—	(2)	34	—	
Mortgage-backed securities	—	—	—	—	—	—	—	—	
Asset-backed securities	—	—	—	—	—	—	—	—	
Equity securities	—	—	—	(1)	1	—	—	—	
Total trading securities	407	(45)	—	(4)	1	(13)	346	(42)	
Other trading assets	34	(6)	—	—	—	—	28	1	
Total trading assets	441	(51)	—	(4)	1	(13)	374	(41)	(3)
Available-for-sale securities:									
Securities of U.S. states and political subdivisions	1,500	6	(25)	60	80	(481)	1,140	—	
Mortgage-backed securities:									
Residential	1	—	—	—	—	—	1	—	
Commercial	73	—	1	17	—	—	91	(1)	
Total mortgage-backed securities	74	—	1	17	—	—	92	(1)	
Corporate debt securities	405	21	35	(29)	—	—	432	(2)	
Collateralized loan and other debt obligations	565	50	(1)	265	—	—	879	—	
Asset-backed securities:									
Automobile loans and leases	—	—	—	—	—	—	—	—	
Home equity loans	—	—	—	—	—	—	—	—	
Other asset-backed securities	1,182	2	(8)	(214)	—	—	962	(4)	
Total asset-backed securities	1,182	2	(8)	(214)	—	—	962	(4)	
Total debt securities	3,726	79	2	99	80	(481)	3,505	(7)	(4)
Marketable equity securities:									
Perpetual preferred securities	—	—	—	—	—	—	—	—	
Other marketable equity securities	—	—	—	—	—	—	—	—	
Total marketable equity securities	—	—	—	—	—	—	—	—	(5)
Total available-for-sale securities	3,726	79	2	99	80	(481)	3,505	(7)	
Mortgages held for sale	1,082	(19)	—	(159)	98	(17)	985	(24)	(6)
Loans	5,316	(59)	—	(4,499)	—	—	758	(24)	(6)
Mortgage servicing rights (residential) (7)	12,415	(1,595)	—	2,139	—	—	12,959	565	(6)
Net derivative assets and liabilities:									
Interest rate contracts	288	843	—	(1,003)	—	(7)	121	170	
Commodity contracts	12	10	—	(2)	4	(1)	23	11	
Equity contracts	(111)	(80)	—	(156)	21	59	(267)	(176)	
Foreign exchange contracts	—	(3)	—	(1)	16	—	12	(4)	
Credit contracts	(3)	31	—	49	—	—	77	26	
Other derivative contracts	(58)	11	—	—	—	—	(47)	11	
Total derivative contracts	128	812	—	(1,113)	41	51	(81)	38	(8)
Other assets	3,065	(30)	—	224	—	—	3,259	(30)	(5)
Short sale liabilities	—	—	—	—	—	—	—	—	(3)
Other liabilities	(30)	1	—	25	—	—	(4)	—	(6)

(1) See Table 17.5 for detail.
(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.
(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.
(4) Included in net gains (losses) from debt securities in the income statement.
(5) Included in net gains (losses) from equity investments in the income statement.
(6) Included in mortgage banking and other noninterest income in the income statement.
(7) For more information on the changes in mortgage servicing rights, see Note 9 (Mortgage Banking Activities).
(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 17.5 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2016.

Table 17.5: Gross Purchases, Sales, Issuances and Settlements – Level 3 – 2016

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Year ended December 31, 2016					
Trading assets:					
Securities of U.S. states and political subdivisions	$ 2	(2)	—	(5)	(5)
Collateralized loan obligations	372	(357)	—	—	15
Corporate debt securities	37	(50)	—	—	(13)
Mortgage-backed securities	—	—	—	—	—
Asset-backed securities	—	—	—	—	—
Equity securities	—	(1)	—	—	(1)
Total trading securities	411	(410)	—	(5)	(4)
Other trading assets	—	—	—	—	—
Total trading assets	411	(410)	—	(5)	(4)
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	28	(24)	547	(491)	60
Mortgage-backed securities:					
Residential	—	—	—	—	—
Commercial	22	—	—	(5)	17
Total mortgage-backed securities	22	—	—	(5)	17
Corporate debt securities	36	(12)	—	(53)	(29)
Collateralized loan and other debt obligations	618	(54)	—	(299)	265
Asset-backed securities:					
Automobile loans and leases	—	—	—	—	—
Home equity loans	—	—	—	—	—
Other asset-backed securities	50	(28)	235	(471)	(214)
Total asset-backed securities	50	(28)	235	(471)	(214)
Total debt securities	754	(118)	782	(1,319)	99
Marketable equity securities:					
Perpetual preferred securities	—	—	—	—	—
Other marketable equity securities	—	—	—	—	—
Total marketable equity securities	—	—	—	—	—
Total available-for-sale securities	754	(118)	782	(1,319)	99
Mortgages held for sale	87	(618)	565	(193)	(159)
Loans	21	(3,791)	302	(1,031)	(4,499)
Mortgage servicing rights (residential) (1)	—	(66)	2,204	1	2,139
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(1,003)	(1,003)
Commodity contracts	—	—	—	(2)	(2)
Equity contracts	29	(147)	—	(38)	(156)
Foreign exchange contracts	—	—	—	(1)	(1)
Credit contracts	7	(4)	—	46	49
Other derivative contracts	—	—	—	—	—
Total derivative contracts	36	(151)	—	(998)	(1,113)
Other assets	225	—	—	(1)	224
Short sale liabilities	—	—	—	—	—
Other liabilities	—	—	—	25	25

(1) For more information on the changes in mortgage servicing rights, see Note 9 (Mortgage Banking Activities).

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2015, are presented in Table 17.6.

Table 17.6: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – 2015

		Total net gains (losses) included in							
(in millions)	Balance, beginning of period	Net income	Other compre-hensive income	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end	(2)
Year ended December 31, 2015									
Trading assets:									
Securities of U.S. states and political subdivisions	$ 7	—	—	1	—	—	8	—	
Collateralized loan obligations	445	8	—	(110)	—	—	343	(28)	
Corporate debt securities	54	2	—	—	12	(12)	56	(2)	
Mortgage-backed securities	—	1	—	(1)	—	—	—	1	
Asset-backed securities	79	16	—	(14)	—	(81)	—	—	
Equity securities	10	1	—	(11)	—	—	—	—	
Total trading securities	595	28	—	(135)	12	(93)	407	(29)	
Other trading assets	55	3	—	(24)	1	(1)	34	(14)	
Total trading assets	650	31	—	(159)	13	(94)	441	(43)	(3)
Available-for-sale securities:									
Securities of U.S. states and political subdivisions	2,277	6	(16)	(691)	—	(76)	1,500	(5)	
Mortgage-backed securities:									
Residential	24	5	(6)	(22)	—	—	1	—	
Commercial	109	12	(18)	(30)	—	—	73	(2)	
Total mortgage-backed securities	133	17	(24)	(52)	—	—	74	(2)	
Corporate debt securities	252	12	(46)	179	8	—	405	(32)	
Collateralized loan and other debt obligations	1,087	218	(169)	(571)	—	—	565	—	
Asset-backed securities:									
Automobile loans and leases	245	—	19	(264)	—	—	—	—	
Home equity loans	—	—	—	—	—	—	—	—	
Other asset-backed securities	1,372	2	(13)	(179)	—	—	1,182	(1)	
Total asset-backed securities	1,617	2	6	(443)	—	—	1,182	(1)	
Total debt securities	5,366	255	(249)	(1,578)	8	(76)	3,726	(40)	(4)
Marketable equity securities:									
Perpetual preferred securities	663	3	(2)	(24)	—	(640)	—	—	
Other marketable equity securities	—	—	—	—	—	—	—	—	
Total marketable equity securities	663	3	(2)	(24)	—	(640)	—	—	(5)
Total available-for-sale securities	6,029	258	(251)	(1,602)	8	(716)	3,726	(40)	
Mortgages held for sale	2,313	23	—	(977)	194	(471)	1,082	(23)	(6)
Loans	5,788	(128)	—	(344)	—	—	5,316	(117)	(6)
Mortgage servicing rights (residential) (7)	12,738	(1,870)	—	1,547	—	—	12,415	214	(6)
Net derivative assets and liabilities:									
Interest rate contracts	293	1,132	—	(1,137)	—	—	288	97	
Commodity contracts	1	7	—	6	(2)	—	12	10	
Equity contracts	(84)	116	—	(82)	(13)	(48)	(111)	74	
Foreign exchange contracts	—	—	—	—	—	—	—	—	
Credit contracts	(189)	19	—	167	—	—	(3)	10	
Other derivative contracts	(44)	(15)	—	1	—	—	(58)	(15)	
Total derivative contracts	(23)	1,259	—	(1,045)	(15)	(48)	128	176	(8)
Other assets	2,512	456	—	97	—	—	3,065	457	(5)
Short sale liabilities	(6)	—	—	6	—	—	—	—	(3)
Other liabilities	(28)	(13)	—	11	—	—	(30)	—	(6)

(1) See Table 17.7 for detail.
(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.
(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.
(4) Included in net gains (losses) from debt securities in the income statement.
(5) Included in net gains (losses) from equity investments in the income statement.
(6) Included in mortgage banking and other noninterest income in the income statement.
(7) For more information on the changes in mortgage servicing rights, see Note 9 (Mortgage Banking Activities).
(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 17.7 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2015.

Table 17.7: Gross Purchases, Sales, Issuances and Settlements – Level 3 – 2015

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Year ended December 31, 2015					
Trading assets:					
Securities of U.S. states and political subdivisions	$ 4	(2)	—	(1)	1
Collateralized loan obligations	1,093	(1,203)	—	—	(110)
Corporate debt securities	45	(45)	—	—	—
Mortgage-backed securities	—	(1)	—	—	(1)
Asset-backed securities	—	(5)	—	(9)	(14)
Equity securities	—	—	—	(11)	(11)
Total trading securities	1,142	(1,256)	—	(21)	(135)
Other trading assets	4	(27)	—	(1)	(24)
Total trading assets	1,146	(1,283)	—	(22)	(159)
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	—	(65)	555	(1,181)	(691)
Mortgage-backed securities:					
Residential	—	(22)	—	—	(22)
Commercial	—	(8)	—	(22)	(30)
Total mortgage-backed securities	—	(30)	—	(22)	(52)
Corporate debt securities	200	(11)	—	(10)	179
Collateralized loan and other debt obligations	109	(325)	—	(355)	(571)
Asset-backed securities:					
Automobile loans and leases	—	—	—	(264)	(264)
Home equity loans	—	—	—	—	—
Other asset-backed securities	141	(1)	274	(593)	(179)
Total asset-backed securities	141	(1)	274	(857)	(443)
Total debt securities	450	(432)	829	(2,425)	(1,578)
Marketable equity securities:					
Perpetual preferred securities	—	—	—	(24)	(24)
Other marketable equity securities	—	—	—	—	—
Total marketable equity securities	—	—	—	(24)	(24)
Total available-for-sale securities	450	(432)	829	(2,449)	(1,602)
Mortgages held for sale	202	(1,605)	777	(351)	(977)
Loans	72	—	379	(795)	(344)
Mortgage servicing rights (residential)	—	(3)	1,556	(6)	1,547
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(1,137)	(1,137)
Commodity contracts	—	—	—	6	6
Equity contracts	15	(103)	—	6	(82)
Foreign exchange contracts	—	—	—	—	—
Credit contracts	12	(3)	—	158	167
Other derivative contracts	—	—	—	1	1
Total derivative contracts	27	(106)	—	(966)	(1,045)
Other assets	97	—	—	—	97
Short sale liabilities	21	(15)	—	—	6
Other liabilities	—	—	—	11	11

The changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2014 are presented in Table 17.8.

Table 17.8: Changes in Level 3 Fair Value Assets and Liabilities on a Recurring Basis – 2014

		Total net gains (losses) included in							
(in millions)	Balance, beginning of period	Net income	Other compre-hensive income	Purchases, sales, issuances and settlements, net (1)	Transfers into Level 3	Transfers out of Level 3	Balance, end of period	Net unrealized gains (losses) included in income related to assets and liabilities held at period end	(2)
Year ended December 31, 2014									
Trading assets:									
Securities of U.S. states and political subdivisions	$ 39	1	—	(2)	—	(31)	7	—	
Collateralized loan obligations	541	36	—	(121)	4	(15)	445	(48)	
Corporate debt securities	53	—	—	(21)	26	(4)	54	1	
Mortgage-backed securities	1	—	—	2	—	(3)	—	—	
Asset-backed securities	122	32	—	(70)	—	(5)	79	32	
Equity securities	13	—	—	(3)	—	—	10	—	
Total trading securities	769	69	—	(215)	30	(58)	595	(15)	
Other trading assets	54	(10)	—	11	1	(1)	55	(1)	
Total trading assets	823	59	—	(204)	31	(59)	650	(16)	(3)
Available-for-sale securities:									
Securities of U.S. states and political subdivisions	3,214	21	(86)	(569)	59	(362)	2,277	(2)	
Mortgage-backed securities:									
Residential	64	11	(5)	(46)	—	—	24	—	
Commercial	138	9	(1)	(37)	—	—	109	(4)	
Total mortgage-backed securities	202	20	(6)	(83)	—	—	133	(4)	
Corporate debt securities	281	25	(25)	(29)	—	—	252	—	
Collateralized loan and other debt obligations	1,420	117	(47)	(403)	—	—	1,087	(2)	
Asset-backed securities:									
Automobile loans and leases	492	—	(33)	(214)	—	—	245	—	
Home equity loans	—	—	—	—	—	—	—	—	
Other asset-backed securities	1,657	5	(6)	(373)	89	—	1,372	—	
Total asset-backed securities	2,149	5	(39)	(587)	89	—	1,617	—	
Total debt securities	7,266	188	(203)	(1,671)	148	(362)	5,366	(8)	(4)
Marketable equity securities:									
Perpetual preferred securities	729	8	(29)	(45)	—	—	663	—	
Other marketable equity securities	—	4	—	(4)	—	—	—	—	
Total marketable equity securities	729	12	(29)	(49)	—	—	663	—	(5)
Total available-for-sale securities	7,995	200	(232)	(1,720)	148	(362)	6,029	(8)	
Mortgages held for sale	2,374	4	—	(276)	440	(229)	2,313	7	(6)
Loans	5,723	(52)	—	(104)	270	(49)	5,788	(32)	(6)
Mortgage servicing rights (residential) (7)	15,580	(4,031)	—	1,189	—	—	12,738	(2,122)	(6)
Net derivative assets and liabilities:									
Interest rate contracts	(40)	1,588	—	(1,255)	—	—	293	317	
Commodity contracts	(10)	(21)	—	(2)	(3)	37	1	(1)	
Equity contracts	(46)	96	—	(214)	(17)	97	(84)	(42)	
Foreign exchange contracts	9	5	—	(14)	—	—	—	—	
Credit contracts	(375)	26	—	160	—	—	(189)	(38)	
Other derivative contracts	(3)	(41)	—	—	—	—	(44)	(40)	
Total derivative contracts	(465)	1,653	—	(1,325)	(20)	134	(23)	196	(8)
Other assets	1,386	518	—	608	—	—	2,512	—	(5)
Short sale liabilities	—	1	—	(7)	—	—	(6)	1	(3)
Other liabilities	(39)	(10)	—	21	—	—	(28)	(1)	(6)

(1) See Table 17.9 for detail.
(2) Represents only net gains (losses) that are due to changes in economic conditions and management's estimates of fair value and excludes changes due to the collection/realization of cash flows over time.
(3) Included in net gains (losses) from trading activities and other noninterest income in the income statement.
(4) Included in net gains (losses) from debt securities in the income statement.
(5) Included in net gains (losses) from equity investments in the income statement.
(6) Included in mortgage banking and other noninterest income in the income statement.
(7) For more information on the changes in mortgage servicing rights, see Note 9 (Mortgage Banking Activities).
(8) Included in mortgage banking, trading activities, equity investments and other noninterest income in the income statement.

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Table 17.9 presents gross purchases, sales, issuances and settlements related to the changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the year ended December 31, 2014.

Table 17.9: Gross Purchases, Sales, Issuances and Settlements – Level 3 – 2014

(in millions)	Purchases	Sales	Issuances	Settlements	Net
Year ended December 31, 2014					
Trading assets:					
Securities of U.S. states and political subdivisions	$ 10	(12)	—	—	(2)
Collateralized loan obligations	1,057	(1,174)	—	(4)	(121)
Corporate debt securities	85	(106)	—	—	(21)
Mortgage-backed securities	3	(1)	—	—	2
Asset-backed securities	17	(47)	—	(40)	(70)
Equity securities	—	—	—	(3)	(3)
Total trading securities	1,172	(1,340)	—	(47)	(215)
Other trading assets	11	(1)	1	—	11
Total trading assets	1,183	(1,341)	1	(47)	(204)
Available-for-sale securities:					
Securities of U.S. states and political subdivisions	73	(144)	336	(834)	(569)
Mortgage-backed securities:					
Residential	—	(44)	—	(2)	(46)
Commercial	—	(31)	—	(6)	(37)
Total mortgage-backed securities	—	(75)	—	(8)	(83)
Corporate debt securities	21	(32)	10	(28)	(29)
Collateralized loan and other debt obligations	134	(34)	—	(503)	(403)
Asset-backed securities:					
Automobile loans and leases	—	—	—	(214)	(214)
Home equity loans	—	—	—	—	—
Other asset-backed securities	117	(16)	522	(996)	(373)
Total asset-backed securities	117	(16)	522	(1,210)	(587)
Total debt securities	345	(301)	868	(2,583)	(1,671)
Marketable equity securities:					
Perpetual preferred securities	—	—	—	(45)	(45)
Other marketable equity securities	—	(4)	—	—	(4)
Total marketable equity securities	—	(4)	—	(45)	(49)
Total available-for-sale securities	345	(305)	868	(2,628)	(1,720)
Mortgages held for sale	208	(276)	167	(375)	(276)
Loans	76	—	438	(618)	(104)
Mortgage servicing rights (residential)	—	(7)	1,196	—	1,189
Net derivative assets and liabilities:					
Interest rate contracts	—	—	—	(1,255)	(1,255)
Commodity contracts	—	—	—	(2)	(2)
Equity contracts	—	(116)	—	(98)	(214)
Foreign exchange contracts	—	—	—	(14)	(14)
Credit contracts	3	(2)	—	159	160
Other derivative contracts	—	—	—	—	—
Total derivative contracts	3	(118)	—	(1,210)	(1,325)
Other assets	608	—	—	—	608
Short sale liabilities	20	(27)	—	—	(7)
Other liabilities	—	—	—	21	21

Table 17.10 and Table 17.11 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 (see discussion regarding vendor-developed valuations within the "Level 3 Asset and Liability Valuation Processes" section previously within this Note). 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.

Table 17.10: Valuation Techniques – Recurring Basis – 2016

($ in millions, except cost to service amounts)	Fair Value Level 3		Valuation Technique(s)	Significant Unobservable Input	Range of Inputs				Weighted Average (1)
December 31, 2016									
Trading and available-for-sale securities:									
Securities of U.S. states and political subdivisions:									
Government, healthcare and other revenue bonds	$ 906		Discounted cash flow	Discount rate	1.1	-	5.6	%	2.0
Auction rate securities and other municipal bonds	29		Discounted cash flow	Discount rate	3.7	-	4.9		4.5
				Weighted average life	3.6	-	3.6	yrs	3.6
	208		Vendor priced						
Collateralized loan and other debt obligations (2)	309		Market comparable pricing	Comparability adjustment	(15.5)	-	20.3	%	2.9
	879		Vendor priced						
Asset-backed securities:									
Diversified payment rights (3)	443		Discounted cash flow	Discount rate	1.9	-	4.8		3.3
Other commercial and consumer	492	(4)	Discounted cash flow	Discount rate	3.0	-	4.6		3.9
				Weighted average life	0.8	-	4.2	yrs	2.9
	27		Vendor priced						
Mortgages held for sale (residential)	955		Discounted cash flow	Default rate	0.5	-	7.9	%	1.9
				Discount rate	1.1	-	6.9		5.1
				Loss severity	0.1	-	42.5		26.9
				Prepayment rate	6.3	-	17.1		10.0
	30		Market comparable pricing	Comparability adjustment	(53.3)	-	0.0		(37.8)
Loans	758	(5)	Discounted cash flow	Discount rate	0.0	-	3.9		0.6
				Prepayment rate	0.4	-	100.0		83.7
				Utilization rate	0.0	-	0.8		0.1
Mortgage servicing rights (residential)	12,959		Discounted cash flow	Cost to service per loan (6)	$ 79	-	598		155
				Discount rate	6.5	-	18.4	%	6.8
				Prepayment rate (7)	9.4	-	20.6		10.3
Net derivative assets and (liabilities):									
Interest rate contracts	127		Discounted cash flow	Default rate	0.1	-	6.8		2.1
				Loss severity	50.0	-	50.0		50.0
				Prepayment rate	2.8	-	12.5		9.6
Interest rate contracts: derivative loan commitments	(6)		Discounted cash flow	Fall-out factor	1.0	-	99.0		15.0
				Initial-value servicing	(23.0)	-	131.2	bps	56.8
Equity contracts	79		Discounted cash flow	Conversion factor	(10.6)	-	0.0	%	(7.9)
				Weighted average life	1.0	-	3.0	yrs	2.0
	(346)		Option model	Correlation factor	(65.0)	-	98.5	%	39.9
				Volatility factor	6.5	-	100.0		20.7
Credit contracts	(28)		Market comparable pricing	Comparability adjustment	(27.7)	-	21.3		0.02
	105		Option model	Credit spread	0.0	-	11.6		1.2
				Loss severity	12.0	-	60.0		50.4
Other assets: nonmarketable equity investments	21		Discounted cash flow	Discount rate	5.0	-	10.3		8.7
				Volatility Factor	0.3		2.4		1.1
	3,238		Market comparable pricing	Comparability adjustment	(22.1)	-	(5.5)		(16.4)
Insignificant Level 3 assets, net of liabilities	570	(8)							
Total level 3 assets, net of liabilities	$ 21,755	(9)							

(1) Weighted averages are calculated using outstanding unpaid principal balance for cash instruments, such as loans and securities, and notional amounts for derivative instruments.
(2) Includes $847 million of collateralized debt obligations.
(3) Securities backed by specified sources of current and future receivables generated from foreign originators.
(4) A significant portion of the balance consists of investments in asset-backed securities that are revolving in nature, for which the timing of advances and repayments of principal are uncertain.
(5) Consists of reverse mortgage loans.
(6) The high end of the range of inputs is for servicing modified loans. For non-modified loans the range is $79 - $293.
(7) Includes a blend of prepayment speeds and expected defaults. Prepayment speeds are influenced by mortgage interest rates as well as our estimation of drivers of borrower behavior.
(8) Represents the aggregate amount of Level 3 assets and liabilities measured at fair value on a recurring basis that are individually and in the aggregate insignificant. The amount includes corporate debt securities, mortgage-backed securities, other trading assets, other liabilities and certain net derivative assets and liabilities, such as commodity contracts, foreign exchange contracts, and other derivative contracts.
(9) Consists of total Level 3 assets of $23.5 billion and total Level 3 liabilities of $1.7 billion, before netting of derivative balances.

Table 17.11: Valuation Techniques – Recurring Basis – 2015

($ 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, 2015							
Trading and available-for-sale securities:							
Securities of U.S. states and political subdivisions:							
Government, healthcare and other revenue bonds	$ 1,213		Discounted cash flow	Discount rate	0.8 - 5.6	%	1.9
	51		Vendor priced				
Auction rate securities and other municipal bonds	244		Discounted cash flow	Discount rate	0.8 - 4.5		2.0
				Weighted average life	1.0 - 10.0	yrs	4.7
Collateralized loan and other debt obligations (2)	343		Market comparable pricing	Comparability adjustment	(20.0) - 20.3	%	2.9
	565		Vendor priced				
Asset-backed securities:							
Diversified payment rights (3)	608		Discounted cash flow	Discount rate	1.0 - 5.0		3.2
Other commercial and consumer	508	(4)	Discounted cash flow	Discount rate	2.5 - 6.3		3.8
				Weighted average life	1.0 - 9.4	yrs	4.3
	66		Vendor priced				
Mortgages held for sale (residential)	1,033		Discounted cash flow	Default rate	0.5 - 13.7	%	3.6
				Discount rate	1.1 - 6.3		4.7
				Loss severity	0.1 - 22.7		11.2
				Prepayment rate	2.6 - 9.6		6.4
	49		Market comparable pricing	Comparability adjustment	(53.3) - 0.0		(32.6)
Loans	5,316	(5)	Discounted cash flow	Discount rate	0.0 - 3.9		3.1
				Prepayment rate	0.2 - 100.0		14.6
				Utilization rate	0.0 - 0.8		0.3
Mortgage servicing rights (residential)	12,415		Discounted cash flow	Cost to service per loan (6)	$ 70 - 599		168
				Discount rate	6.8 - 11.8	%	7.3
				Prepayment rate (7)	10.1 - 18.9		11.4
Net derivative assets and (liabilities):							
Interest rate contracts	230		Discounted cash flow	Default rate	0.1 - 9.6		2.6
				Loss severity	50.0 - 50.0		50.0
				Prepayment rate	0.3 - 2.5		2.2
Interest rate contracts: derivative loan commitments	58	(8)	Discounted cash flow	Fall-out factor	1.0 - 99.0		18.8
				Initial-value servicing	(30.6) - 127.0	bps	41.5
Equity contracts	72		Discounted cash flow	Conversion factor	(10.6) - 0.0	%	(8.1)
				Weighted average life	0.5 - 2.0	yrs	1.5
	(183)		Option model	Correlation factor	(77.0) - 98.5	%	66.0
				Volatility factor	6.5 - 91.3		24.2
Credit contracts	(9)		Market comparable pricing	Comparability adjustment	(53.6) - 18.2		(0.6)
	6		Option model	Credit spread	0.0 - 19.9		1.6
				Loss severity	13.0 - 73.0		49.6
Other assets: nonmarketable equity investments	3,065		Market comparable pricing	Comparability adjustment	(19.1) - (5.5)		(15.1)
Insignificant Level 3 assets, net of liabilities	493	(9)					
Total level 3 assets, net of liabilities	$ 26,143	(10)					

(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 $257 million of collateralized debt obligations.
(3) Securities backed by specified sources of current and future receivables generated from foreign originators.
(4) Consists largely 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 $70 - $335.
(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) Total derivative loan commitments were a net asset of $56 million, of which a $2 million derivative liability was classified as level 2 at December 31, 2015.
(9) Represents the aggregate amount of Level 3 assets and liabilities measured at fair value on a recurring basis that are individually and in the aggregate insignificant. The amount includes corporate debt securities, mortgage-backed securities, other trading assets, other liabilities and certain net derivative assets and liabilities, such as commodity contracts, foreign exchange contracts, and other derivative contracts.
(10) Consists of total Level 3 assets of $27.6 billion and total Level 3 liabilities of $1.5 billion, before netting of derivative balances.

The valuation techniques used for our Level 3 assets and liabilities, as presented in the previous tables, are described as follows:

- Discounted cash flow – Discounted cash flow valuation techniques generally consist of developing an estimate of future cash flows that are expected to occur over the life of an instrument and then discounting those cash flows at a rate of return that results in the fair value amount.
- Market comparable pricing – Market comparable pricing valuation techniques are used to determine the fair value of certain instruments by incorporating known inputs, such as recent transaction prices, pending transactions, or prices of other similar investments that require significant adjustment to reflect differences in instrument characteristics.
- Option model – Option model valuation techniques are generally used for instruments in which the holder has a contingent right or obligation based on the occurrence of a future event, such as the price of a referenced asset going above or below a predetermined strike price. Option models estimate the likelihood of the specified event occurring by incorporating assumptions such as volatility estimates, price of the underlying instrument and expected rate of return.
- Vendor-priced – Prices obtained from third party pricing vendors or brokers that are used to record the fair value of the asset or liability for which the related valuation technique and significant unobservable inputs are not provided.

Significant unobservable inputs presented in the previous tables are those we consider significant to the fair value of the Level 3 asset or liability. We consider unobservable inputs to be significant if by their exclusion the fair value of the Level 3 asset or liability would be impacted by a predetermined percentage change. We also consider qualitative factors, such as nature of the instrument, type of valuation technique used, and the significance of the unobservable inputs relative to other inputs used within the valuation. Following is a description of the significant unobservable inputs provided in the table.

- Comparability adjustment – is an adjustment made to observed market data, such as a transaction price in order to reflect dissimilarities in underlying collateral, issuer, rating, or other factors used within a market valuation approach, expressed as a percentage of an observed price.
- Conversion Factor – is the risk-adjusted rate in which a particular instrument may be exchanged for another instrument upon settlement, expressed as a percentage change from a specified rate.
- Correlation factor – is the likelihood of one instrument changing in price relative to another based on an established relationship expressed as a percentage of relative change in price over a period over time.
- Cost to service – is the expected cost per loan of servicing a portfolio of loans, which includes estimates for unreimbursed expenses (including delinquency and foreclosure costs) that may occur as a result of servicing such loan portfolios.
- Credit spread – is the portion of the interest rate in excess of a benchmark interest rate, such as Overnight Index Swap (OIS), LIBOR or U.S. Treasury rates, that when applied to an investment captures changes in the obligor's creditworthiness.
- Default rate – is an estimate of the likelihood of not collecting contractual amounts owed expressed as a constant default rate (CDR).
- Discount rate – is a rate of return used to calculate the present value of the future expected cash flow to arrive at the fair value of an instrument. The discount rate consists of a benchmark rate component and a risk premium component. The benchmark rate component, for example, OIS, LIBOR or U.S. Treasury rates, is generally observable within the market and is necessary to appropriately reflect the time value of money. The risk premium component reflects the amount of compensation market participants require due to the uncertainty inherent in the instruments' cash flows resulting from risks such as credit and liquidity.
- Fall-out factor – is the expected percentage of loans associated with our interest rate lock commitment portfolio that are likely of not funding.
- Initial-value servicing – is the estimated value of the underlying loan, including the value attributable to the embedded servicing right, expressed in basis points of outstanding unpaid principal balance.
- Loss severity – is the estimated percentage of contractual cash flows lost in the event of a default.
- Prepayment rate – is the estimated rate at which forecasted prepayments of principal of the related loan or debt instrument are expected to occur, expressed as a constant prepayment rate (CPR).
- Utilization rate – is the estimated rate in which incremental portions of existing reverse mortgage credit lines are expected to be drawn by borrowers, expressed as an annualized rate.
- Volatility factor – is the extent of change in price an item is estimated to fluctuate over a specified period of time expressed as a percentage of relative change in price over a period over time.
- Weighted average life – is the weighted average number of years an investment is expected to remain outstanding based on its expected cash flows reflecting the estimated date the issuer will call or extend the maturity of the instrument or otherwise reflecting an estimate of the timing of an instrument's cash flows whose timing is not contractually fixed.

Significant Recurring Level 3 Fair Value Asset and Liability Input Sensitivity

We generally use discounted cash flow or similar internal modeling techniques to determine the fair value of our Level 3 assets and liabilities. Use of these techniques requires determination of relevant inputs and assumptions, some of which represent significant unobservable inputs as indicated in the preceding tables. Accordingly, changes in these unobservable inputs may have a significant impact on fair value.

Certain of these unobservable inputs will (in isolation) have a directionally consistent impact on the fair value of the instrument for a given change in that input. Alternatively, the fair value of the instrument may move in an opposite direction for a given change in another input. Where multiple inputs are used within the valuation technique of an asset or liability, a change in one input in a certain direction may be offset by an opposite change in another input having a potentially muted impact to the overall fair value of that particular instrument. Additionally, a change in one unobservable input may result in a change to another unobservable input (that is, changes in certain inputs are interrelated to one another), which may counteract or magnify the fair value impact.

SECURITIES, LOANS, MORTGAGES HELD FOR SALE and NONMARKETABLE EQUITY INVESTMENTS The fair values of predominantly all Level 3 trading securities, mortgages held for sale, loans, other nonmarketable equity investments, and available-for-sale securities have consistent inputs, valuation techniques and correlation to changes in underlying inputs. The internal models used to determine fair value for these Level 3 instruments use certain significant unobservable inputs within a discounted cash flow or market comparable pricing valuation technique. Such inputs include discount rate, prepayment rate, default rate, loss severity, utilization rate, comparability adjustment and weighted average life.

These Level 3 assets would decrease (increase) in value based upon an increase (decrease) in discount rate, default rate, loss severity, or weighted average life inputs and would generally decrease (increase) in value based upon an increase (decrease) in prepayment rate. Conversely, the fair value of these Level 3 assets would generally increase (decrease) in value if the utilization rate input were to increase (decrease).

Generally, a change in the assumption used for default rate is accompanied by a directionally similar change in the risk premium component of the discount rate (specifically, the portion related to credit risk) and a directionally opposite change in the assumption used for prepayment rates. The comparability adjustment input may have a positive or negative impact on fair value depending on the change in fair value the comparability adjustment references. Unobservable inputs for comparability adjustment, loss severity, utilization rate and weighted average life do not increase or decrease based on movements in the other significant unobservable inputs for these Level 3 assets.

DERIVATIVE INSTRUMENTS Level 3 derivative instruments are valued using market comparable pricing, option pricing and discounted cash flow valuation techniques. We utilize certain unobservable inputs within these techniques to determine the fair value of the Level 3 derivative instruments. The significant unobservable inputs consist of credit spread, a comparability adjustment, prepayment rate, default rate, loss severity, initial-value servicing, fall-out factor, volatility factor, weighted average life, conversion factor, and correlation factor.

Level 3 derivative assets (liabilities) where we are long the underlying would decrease (increase) in value upon an increase (decrease) in default rate, fall-out factor, credit spread, conversion factor, or loss severity inputs. Conversely, Level 3 derivative assets (liabilities) would generally increase (decrease) in value upon an increase (decrease) in prepayment rate, initial-value servicing, weighted average life, or volatility factor inputs. The inverse of the above relationships would occur for instruments in which we are short the underlying. The correlation factor and comparability adjustment inputs may have a positive or negative impact on the fair value of these derivative instruments depending on the change in value of the item the correlation factor and comparability adjustment is referencing. The correlation factor and comparability adjustment are considered independent from movements in other significant unobservable inputs for derivative instruments.

Generally, for derivative instruments for which we are subject to changes in the value of the underlying referenced instrument, a change in the assumption used for default rate is accompanied by directionally similar change in the risk premium component of the discount rate (specifically, the portion related to credit risk) and a directionally opposite change in the assumption used for prepayment rates. Unobservable inputs for loss severity, fall-out factor, initial-value servicing, weighted average life, conversion factor, and volatility do not increase or decrease based on movements in other significant unobservable inputs for these Level 3 instruments.

MORTGAGE SERVICING RIGHTS We use a discounted cash flow valuation technique to determine the fair value of Level 3 mortgage servicing rights. These models utilize certain significant unobservable inputs including prepayment rate, discount rate and costs to service. An increase in any of these unobservable inputs will reduce the fair value of the mortgage servicing rights and alternatively, a decrease in any one of these inputs would result in the mortgage servicing rights increasing in value. Generally, a change in the assumption used for the default rate is accompanied by a directionally similar change in the assumption used for cost to service and a directionally opposite change in the assumption used for prepayment. The sensitivity of our residential MSRs is discussed further in Note 8 (Securitizations and Variable Interest Entities).

Assets and Liabilities Recorded at Fair Value on a Nonrecurring Basis

We may be required, from time to time, to measure certain assets at fair value on a nonrecurring basis in accordance with GAAP. These adjustments to fair value usually result from application of LOCOM accounting or write-downs of individual assets. Table 17.12 provides the fair value hierarchy and carrying amount of all assets that were still held as of December 31, 2016, and 2015, and for which a nonrecurring fair value adjustment was recorded during the years then ended.

Table 17.12: Fair Value on a Nonrecurring Basis

	December 31, 2016				December 31, 2015			
(in millions)	**Level 1**	**Level 2**	**Level 3**	**Total**	Level 1	Level 2	Level 3	Total
Mortgages held for sale (LOCOM) (1)	**$ —**	**2,312**	**1,350**	**3,662**	—	4,667	1,047	5,714
Loans held for sale	**—**	**8**	**—**	**8**	—	279	—	279
Loans:								
Commercial	**—**	**464**	**—**	**464**	—	191	—	191
Consumer	**—**	**822**	**7**	**829**	—	1,406	7	1,413
Total loans (2)	**—**	**1,286**	**7**	**1,293**	—	1,597	7	1,604
Other assets - excluding nonmarketable equity investments at NAV (3)	**—**	**233**	**412**	**645**	—	280	368	648
Total included in the fair value hierarchy	**$ —**	**3,839**	**1,769**	**5,608**	—	6,823	1,422	8,245
Other assets - nonmarketable equity investments at NAV (4)				**13**				286
Total assets at fair value on a nonrecurring basis				**$ 5,621**				8,531

(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) Includes the fair value of foreclosed real estate, other collateral owned, operating lease assets and nonmarketable equity investments.
(4) Consists of certain nonmarketable equity investments that are measured at fair value on a nonrecurring basis using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

Table 17.13 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 17.13: Change in Value of Assets with Nonrecurring Fair Value Adjustment

	Year ended December 31,	
(in millions)	**2016**	2015
Mortgages held for sale (LOCOM)	**$ 1**	(3)
Loans held for sale	**—**	(3)
Loans:		
Commercial	**(913)**	(165)
Consumer	**(717)**	(1,001)
Total loans (1)	**(1,630)**	(1,166)
Other assets (2)	**(438)**	(396)
Total	**$ (2,067)**	(1,568)

(1) Represents write-downs of loans based on the appraised value of the collateral.
(2) Includes the losses on foreclosed real estate and other collateral owned that were measured at fair value subsequent to their initial classification as foreclosed assets. Also includes impairment losses on nonmarketable equity investments.

Table 17.14 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 17.14: Valuation Techniques – Nonrecurring Basis

($ in millions)	Fair Value Level 3	Valuation Technique(s) (1)	Significant Unobservable Inputs (1)	Range of inputs	Weighted Average (2)
December 31, 2016					
Residential mortgages held for sale (LOCOM)	**$ 1,350 (3)**	**Discounted cash flow**	**Default rate (4)**	**0.2 – 4.3 %**	**1.9 %**
			Discount rate	**1.5 – 8.5**	**3.8**
			Loss severity	**0.7 – 50.1**	**2.4**
			Prepayment rate (5)	**3.0 – 100.0**	**50.7**
Other assets: nonmarketable equity investments	**—**	**Market comparable pricing**	**Comparability adjustment**	**0.0 – 0.0**	**0.0**
	220	**Discounted cash flow**	**Discount rate**	**4.7 – 9.3**	**7.3**
Insignificant level 3 assets	**199**				
Total	**$ 1,769**				
December 31, 2015					
Residential mortgages held for sale (LOCOM)	$ 1,047 (3)	Discounted cash flow	Default rate (4)	0.5 – 5.0 %	4.2 %
			Discount rate	1.5 – 8.5	3.5
			Loss severity	0.0 – 26.1	2.9
			Prepayment rate (5)	2.6 – 100.0	65.4
Other assets: nonmarketable equity investments	228	Market comparable pricing	Comparability adjustment	5.0 – 9.2	8.5
	—	Discounted cash flow	Discount rate	0.0 – 0.0	0.0
Insignificant level 3 assets	147				
Total	$ 1,422				

(1) Refer to the narrative following Table 17.11 for a definition of the valuation technique(s) and significant unobservable inputs.
(2) For residential MHFS, weighted averages are calculated using outstanding unpaid principal balance of the loans.
(3) Consists of $1.3 billion and $1.0 billion government insured/guaranteed loans purchased from GNMA-guaranteed mortgage securitization at December 31, 2016 and 2015, respectively, and $33 million and $41 million of other mortgage loans that are not government insured/guaranteed at December 31, 2016 and 2015, respectively.
(4) Applies only to non-government insured/guaranteed loans.
(5) Includes the impact on prepayment rate of expected defaults for the government insured/guaranteed loans, which impacts the frequency and timing of early resolution of loans.

Alternative Investments

We hold certain nonmarketable equity investments for which we use NAV per share (or its equivalent) as a practical expedient for fair value measurements, including estimated fair values for investments accounted for under the cost method. The investments consist of private equity funds that invest in equity and debt securities issued by private and publicly-held companies. The fair values of these investments and related unfunded commitments totaled $48 million and $37 million, respectively, at December 31, 2016 , and $642 million and $144 million, respectively, at December 31, 2015. The investments do not allow redemptions. We receive distributions as the underlying assets of the funds liquidate, which we expect to occur over the next 12 months.

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. Following is a discussion of the portfolios for which we elected the fair value option.

TRADING ASSETS - LOANS We engage in holding loans for market-making purposes to support the buying and selling demands of our customers. These loans are generally held for a short period of time and managed within parameters of internally approved market risk limits. We have elected to measure and carry them at fair value, which best aligns with our risk management practices. Fair value for these loans is primarily determined using readily available market data based on recent transaction prices for similar loans.

MORTGAGES HELD FOR SALE (MHFS) We measure MHFS at fair value for MHFS originations for which an active secondary market and readily available market prices exist to reliably support fair value pricing models used for these loans. Loan origination fees on these loans are recorded when earned, and related direct loan origination costs are recognized when incurred. We also measure at fair value certain of our other interests held related to residential loan sales and securitizations. We believe fair value measurement for MHFS and other interests held, which we hedge with economic hedge derivatives along with our MSRs measured at fair value, reduces certain timing differences and better matches changes in the value of these assets with changes in the value of derivatives used as economic hedges for these assets.

LOANS HELD FOR SALE (LHFS) We elected to measure certain LHFS portfolios at fair value in conjunction with customer accommodation activities, which better aligns the measurement basis of the assets held with our management objectives given the trading nature of these portfolios.

LOANS Loans that we measure at fair value consist predominantly of reverse mortgage loans previously transferred under a GNMA reverse mortgage securitization program accounted for as a secured borrowing. Before the transfer, they were classified as MHFS measured at fair value and, as such, remain carried on our balance sheet under the fair value option.

OTHER FINANCIAL INSTRUMENTS We elected to measure at fair value certain nonmarketable equity securities that are hedged with derivative instruments to better reflect the economics of the transactions. These securities are included in other assets.

Similarly, we may elect fair value option for the assets and liabilities of certain newly consolidated VIEs if our interests, prior to consolidation, are carried at fair value with changes in fair value recorded to earnings. Accordingly, such an election allows us to continue fair value accounting through earnings for those interests and eliminate income statement mismatch otherwise caused by differences in the measurement basis of the consolidated VIEs assets and liabilities.

Table 17.15 reflects differences between the fair value carrying amount of certain assets and liabilities for which we have elected the fair value option and the contractual aggregate unpaid principal amount at maturity.

Table 17.15: Fair Value Option

	December 31, 2016			December 31, 2015		
(in millions)	**Fair value carrying amount**	**Aggregate unpaid principal**	**Fair value carrying amount less aggregate unpaid principal**	Fair value carrying amount	Aggregate unpaid principal	Fair value carrying amount less aggregate unpaid principal
Trading assets - loans:						
Total loans	**$ 1,332**	**1,418**	**(86)**	886	935	(49)
Nonaccrual loans	**100**	**115**	**(15)**	—	—	—
Mortgages held for sale:						
Total loans	**22,042**	**21,961**	**81**	13,539	13,265	274
Nonaccrual loans	**136**	**182**	**(46)**	161	228	(67)
Loans 90 days or more past due and still accruing	**12**	**16**	**(4)**	19	22	(3)
Loans held for sale:						
Total loans	**—**	**6**	**(6)**	—	5	(5)
Nonaccrual loans	**—**	**6**	**(6)**	—	5	(5)
Loans:						
Total loans	**758**	**775**	**(17)**	5,316	5,184	132
Nonaccrual loans	**297**	**318**	**(21)**	305	322	(17)
Other assets (1)	**3,275**	**N/A**	**N/A**	3,065	N/A	N/A

(1) Consists of nonmarketable equity investments carried at fair value. See Note 7 (Premises, Equipment, Lease Commitments and Other Assets) for more information.

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 17.16 by income statement line item.

Table 17.16: Fair Value Option – Changes in Fair Value Included in Earnings

									Year ended December 31,
			2016			2015			2014
(in millions)		**Mortgage banking noninterest income**	**Net gains (losses) from trading activities**	**Other noninterest income**	Mortgage banking noninterest income	Net gains (losses) from trading activities	Other noninterest income	Mortgage banking noninterest income	Net gains (losses) from trading activities	Other noninterest income
Trading assets - loans	**$**	**—**	**55**	**3**	—	4	4	—	29	4
Mortgages held for sale		**1,456**	**—**	**—**	1,808	—	—	2,211	—	—
Loans		**—**	**—**	**(60)**	—	—	(122)	—	—	(49)
Other assets		**—**	**—**	**(12)**	—	—	457	—	—	518
Other interests held (1)		**—**	**(5)**	**—**	—	(6)	—	—	(12)	—

(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 17.17 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 17.17: Fair Value Option – Gains/Losses Attributable to Instrument-Specific Credit Risk

				Year ended December 31,
(in millions)		**2016**	2015	2014
Gains (losses) attributable to instrument-specific credit risk:				
Trading assets - loans	**$**	**55**	4	29
Mortgages held for sale		**3**	29	60
Total	**$**	**58**	33	89

Disclosures about Fair Value of Financial Instruments

Table 17.18 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 17.2 in this Note. The carrying amounts in the following table are recorded on the balance sheet under the indicated captions, except for nonmarketable equity investments, which are included in other assets.

We have not included assets and liabilities that are not financial instruments in our disclosure, such as the value of the long-term relationships with our deposit, credit card and trust customers, amortized MSRs, premises and equipment, goodwill and other intangibles, deferred taxes and other liabilities. The total of the fair value calculations presented does not represent, and should not be construed to represent, the underlying value of the Company.

Table 17.18: Fair Value Estimates for Financial Instruments

		Estimated fair value			
(in millions)	Carrying amount	Level 1	Level 2	Level 3	Total
December 31, 2016					
Financial assets					
Cash and due from banks (1)	**$ 20,729**	**20,729**	**—**	**—**	**20,729**
Federal funds sold, securities purchased under resale agreements and other short-term investments (1)	**266,038**	**18,670**	**247,286**	**82**	**266,038**
Held-to-maturity securities	**99,583**	**45,079**	**51,706**	**2,370**	**99,155**
Mortgages held for sale (2)	**4,267**	**—**	**2,927**	**1,350**	**4,277**
Loans held for sale	**80**	**—**	**81**	**—**	**81**
Loans, net (3)	**936,358**	**—**	**60,245**	**887,589**	**947,834**
Nonmarketable equity investments (cost method)					
Excluding investments at NAV	**8,362**	**—**	**18**	**8,924**	**8,942**
Total financial assets included in the fair value hierarchy	**1,335,417**	**84,478**	**362,263**	**900,315**	**1,347,056**
Investments at NAV (4)	**35**				**48**
Total financial assets	**1,335,452**				**1,347,104**
Financial liabilities					
Deposits	**1,306,079**	**—**	**1,282,158**	**23,995**	**1,306,153**
Short-term borrowings (1)	**96,781**	**—**	**96,781**	**—**	**96,781**
Long-term debt (5)	**255,070**	**—**	**245,704**	**10,075**	**255,779**
Total financial liabilities	**1,657,930**	**—**	**1,624,643**	**34,070**	**1,658,713**
December 31, 2015					
Financial assets					
Cash and due from banks (1)	$ 19,111	19,111	—	—	19,111
Federal funds sold, securities purchased under resale agreements and other short-term investments (1)	270,130	14,057	255,911	162	270,130
Held to maturity securities	80,197	45,167	32,052	3,348	80,567
Mortgages held for sale (2)	6,064	—	5,019	1,047	6,066
Loans held for sale	279	—	279	—	279
Loans, net (3)	887,497	—	60,848	839,816	900,664
Nonmarketable equity investments (cost method)					
Excluding investments at NAV	6,659	—	14	7,271	7,285
Total financial assets included in the fair value hierarchy	1,269,937	78,335	354,123	851,644	1,284,102
Investments at NAV (4)	376				619
Total financial assets	1,270,313				1,284,721
Financial liabilities					
Deposits	1,223,312	—	1,194,781	28,616	1,223,397
Short-term borrowings (1)	97,528	—	97,528	—	97,528
Long-term debt (5)	199,528	—	188,015	10,468	198,483
Total financial liabilities	1,520,368	—	1,480,324	39,084	1,519,408

(1) Amounts consist of financial instruments in which carrying value approximates fair value.
(2) Excludes MHFS for which we elected the fair value option.
(3) Excludes loans for which the fair value option was elected and also excludes lease financing with a carrying amount of $19.3 billion and $12.4 billion at December 31, 2016 and 2015, respectively.
(4) Consists of certain nonmarketable equity investments for which estimated fair values are determined using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.
(5) Excludes capital lease obligations of $7 million and $8 million at December 31, 2016 and 2015, respectively.

Loan commitments, standby letters of credit and commercial and similar letters of credit are not included in the table above. A reasonable estimate of the fair value of these instruments is the carrying value of deferred fees plus the allowance for unfunded credit commitments, which totaled $1.2 billion and $1.0 billion at December 31, 2016 and 2015, respectively.

Note 18: 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 18.1: Preferred Stock Shares

	December 31, 2016		December 31, 2015	
	Liquidation preference per share	Shares authorized and designated	Liquidation preference per share	Shares authorized and designated
DEP Shares				
Dividend Equalization Preferred Shares (DEP)	$ 10	97,000	$ 10	97,000
Series H				
Floating Class A Preferred Stock	20,000	50,000	20,000	50,000
Series I				
Floating Class A Preferred Stock	100,000	25,010	100,000	25,010
Series J				
8.00% Non-Cumulative Perpetual Class A Preferred Stock	1,000	2,300,000	1,000	2,300,000
Series K				
7.98% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	1,000	3,500,000	1,000	3,500,000
Series L				
7.50% Non-Cumulative Perpetual Convertible Class A Preferred Stock	1,000	4,025,000	1,000	4,025,000
Series N				
5.20% Non-Cumulative Perpetual Class A Preferred Stock	25,000	30,000	25,000	30,000
Series O				
5.125% Non-Cumulative Perpetual Class A Preferred Stock	25,000	27,600	25,000	27,600
Series P				
5.25% Non-Cumulative Perpetual Class A Preferred Stock	25,000	26,400	25,000	26,400
Series Q				
5.85% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	69,000	25,000	69,000
Series R				
6.625% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	34,500	25,000	34,500
Series S				
5.90% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	80,000	25,000	80,000
Series T				
6.00% Non-Cumulative Perpetual Class A Preferred Stock	25,000	32,200	25,000	32,200
Series U				
5.875% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	25,000	80,000	25,000	80,000
Series V				
6.00% Non-Cumulative Perpetual Class A Preferred Stock	25,000	40,000	25,000	40,000
Series W				
5.70% Non-Cumulative Perpetual Class A Preferred Stock	25,000	40,000	—	—
Series X				
5.50% Non-Cumulative Perpetual Class A Preferred Stock	25,000	46,000	—	—
ESOP				
Cumulative Convertible Preferred Stock (1)	—	1,439,181	—	1,252,386
Total		11,941,891		11,669,096

(1) See the ESOP Cumulative Convertible Preferred Stock section of this Note for additional information about the liquidation preference for the ESOP Cumulative Preferred Stock.

Table 18.2: Preferred Stock – Shares Issued and Carrying Value

	December 31, 2016				December 31, 2015			
(in millions, except shares)	Shares issued and outstanding	Liquidation preference value	Carrying value	Discount	Shares issued and outstanding	Liquidation preference value	Carrying value	Discount
DEP Shares								
Dividend Equalization Preferred Shares (DEP)	96,546	$ —	—	—	96,546	$ —	—	—
Series I (1)								
Floating Class A Preferred Stock	25,010	2,501	2,501	—	25,010	2,501	2,501	—
Series J (1)								
8.00% Non-Cumulative Perpetual Class A Preferred Stock	2,150,375	2,150	1,995	155	2,150,375	2,150	1,995	155
Series K (1)								
7.98% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	3,352,000	3,352	2,876	476	3,352,000	3,352	2,876	476
Series L (1)								
7.50% Non-Cumulative Perpetual Convertible Class A Preferred Stock	3,968,000	3,968	3,200	768	3,968,000	3,968	3,200	768
Series N (1)								
5.20% Non-Cumulative Perpetual Class A Preferred Stock	30,000	750	750	—	30,000	750	750	—
Series O (1)								
5.125% Non-Cumulative Perpetual Class A Preferred Stock	26,000	650	650	—	26,000	650	650	—
Series P (1)								
5.25% Non-Cumulative Perpetual Class A Preferred Stock	25,000	625	625	—	25,000	625	625	—
Series Q (1)								
5.85% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	69,000	1,725	1,725	—	69,000	1,725	1,725	—
Series R (1)								
6.625% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	33,600	840	840	—	33,600	840	840	—
Series S (1)								
5.90% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	80,000	2,000	2,000	—	80,000	2,000	2,000	—
Series T (1)								
6.00% Non-Cumulative Perpetual Class A Preferred Stock	32,000	800	800	—	32,000	800	800	—
Series U (1)								
5.875% Fixed-to-Floating Non-Cumulative Perpetual Class A Preferred Stock	80,000	2,000	2,000	—	80,000	2,000	2,000	—
Series V (1)								
6.00% Non-Cumulative Perpetual Class A Preferred Stock	40,000	1,000	1,000	—	40,000	1,000	1,000	—
Series W (1)								
5.70% Non-Cumulative Perpetual Class A Preferred Stock	40,000	1,000	1,000	—	—	—	—	—
Series X (1)								
5.50% Non-Cumulative Perpetual Class A Preferred Stock	46,000	1,150	1,150	—	—	—	—	—
ESOP								
Cumulative Convertible Preferred Stock	1,439,181	1,439	1,439	—	1,252,386	1,252	1,252	—
Total	11,532,712	$ 25,950	24,551	1,399	11,259,917	$ 23,613	22,214	1,399

(1) Preferred shares qualify as Tier 1 capital.

In January 2016, we issued 40 million Depositary Shares, each representing a 1/1,000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series W, for an aggregate public offering price of $1.0 billion. In June 2016, we issued 46 million Depositary Shares, each representing a 1/1,000th interest in a share of Non-Cumulative Perpetual Class A Preferred Stock, Series X, for an aggregate public offering price of $1.2 billion.

See Note 8 (Securitizations and Variable Interest Entities) for additional information on our trust preferred securities. On January 26, 2017, we filed with the Delaware Secretary of State a Certificate Eliminating the Certificate of Designations with respect to the Series H preferred stock.

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 18.3: ESOP Preferred Stock

	Shares issued and outstanding		Carrying value		Adjustable dividend rate	
(in millions, except shares)	**Dec 31, 2016**	Dec 31, 2015	**Dec 31, 2016**	Dec 31, 2015	Minimum	Maximum
ESOP Preferred Stock						
$1,000 liquidation preference per share						
2016	**358,528**	—	**$ 358**	—	9.30%	10.30
2015	**200,820**	220,408	**201**	220	8.90	9.90
2014	**255,413**	283,791	**255**	284	8.70	9.70
2013	**222,558**	251,304	**223**	251	8.50	9.50
2012	**144,072**	166,353	**144**	166	10.00	11.00
2011	**149,301**	177,614	**149**	178	9.00	10.00
2010	**90,775**	113,234	**91**	113	9.50	10.50
2008	**17,714**	28,972	**18**	29	10.50	11.50
2007	**—**	10,710	**—**	11	10.75	11.75
Total ESOP Preferred Stock (1)	**1,439,181**	1,252,386	**$ 1,439**	1,252		
Unearned ESOP shares (2)			**$ (1,565)**	(1,362)		

(1) At December 31, 2016 and 2015, additional paid-in capital included $126 million and $110 million, respectively, related to ESOP preferred stock.
(2) We recorded a corresponding charge to unearned ESOP shares in connection with the issuance of the ESOP Preferred Stock. The unearned ESOP shares are reduced as shares of the ESOP Preferred Stock are committed to be released.

Note 19: Common Stock and Stock Plans

Common Stock

Table 19.1 presents our reserved, issued and authorized shares of common stock at December 31, 2016.

Table 19.1: Common Stock Shares

	Number of shares
Dividend reinvestment and common stock purchase plans	12,836,245
Director plans	684,391
Stock plans (1)	550,495,114
Convertible securities and warrants	98,937,374
Total shares reserved	662,953,124
Shares issued	5,481,811,474
Shares not reserved or issued	2,855,235,402
Total shares authorized	9,000,000,000

(1) Includes employee options, restricted shares and restricted share rights, 401(k) profit sharing and compensation deferral plans.

At December 31, 2016, we had 33,101,906 warrants outstanding and exercisable to purchase shares of our common stock with an exercise price of $33.811 per share, expiring on October 28, 2018. The terms of the warrants require that the number of shares entitled to be purchased upon exercise of a warrant be adjusted under certain circumstances. At December 31, 2016, each warrant was exercisable to purchase approximately 1.01 shares of our common stock. We purchased none of these warrants in 2016 or 2015. Holders exercised 1,714,726 and 3,607,802 warrants to purchase shares of our common stock in 2016 and 2015, respectively. These warrants were issued in connection with our participation in the Troubled Asset Relief Program (TARP) Capital Purchase Program (CPP).

Dividend Reinvestment and Common Stock Purchase Plans

Participants in our dividend reinvestment and common stock direct purchase plans may purchase shares of our common stock at fair market value by reinvesting dividends and/or making optional cash payments, under the plan's terms.

Employee Stock Plans

We offer stock-based employee compensation plans as described below. For information on our accounting for stock-based compensation plans, see Note 1 (Summary of Significant Accounting Policies).

LONG-TERM INCENTIVE COMPENSATION PLANS Our Long-Term Incentive Compensation Plan (LTICP) provides for awards of incentive and nonqualified stock options, stock appreciation rights, restricted shares, restricted stock rights (RSRs), performance share awards (PSAs), performance units and stock awards with or without restrictions.

Beginning in 2010, we granted RSRs and performance shares as our primary long-term incentive awards instead of stock options. Holders of RSRs are entitled to the related shares of common stock at no cost generally vesting over three to five years after the RSRs were granted. RSRs generally continue to vest after retirement according to the original vesting schedule. Except in limited circumstances, RSRs are canceled when employment ends.

Holders of each vested PSA are entitled to the related shares of common stock at no cost. PSAs continue to vest after retirement according to the original vesting schedule subject to satisfying the performance criteria and other vesting conditions.

Holders of RSRs and PSAs may be entitled to receive additional RSRs and PSAs (dividend equivalents) or cash payments equal to the cash dividends that would have been paid had the RSRs or PSAs been issued and outstanding shares of common stock. RSRs and PSAs granted as dividend equivalents are subject to the same vesting schedule and conditions as the underlying award.

Stock options must have an exercise price at or above fair market value (as defined in the plan) of the stock at the date of grant (except for substitute or replacement options granted in connection with mergers or other acquisitions) and a term of no more than 10 years. Options generally become exercisable over three years beginning on the first anniversary of the date of grant. Except as otherwise permitted under the plan, if employment is ended for reasons other than retirement, permanent disability or death, the option exercise period is reduced or the options are canceled.

Compensation expense for most of our RSRs, and PSAs granted prior to 2013 is based on the quoted market price of the related stock at the grant date; beginning in 2013 certain RSRs and all PSAs granted include discretionary conditions that can result in forfeiture and are subject to variable accounting. For these awards, the associated compensation expense fluctuates with changes in our stock price. Table 19.2 summarizes the major components of stock incentive compensation expense and the related recognized tax benefit.

Table 19.2: Stock Incentive Compensation Expense

	Year ended December 31,		
(in millions)	**2016**	2015	2014
RSRs	**$ 692**	675	639
Performance shares	**87**	169	219
Total stock incentive compensation expense	**$ 779**	844	858
Related recognized tax benefit	**$ 294**	318	324

For various acquisitions and mergers, we converted employee and director stock options of acquired or merged companies into stock options to purchase our common stock based on the terms of the original stock option plan and the agreed-upon exchange ratio. In addition, we converted restricted stock awards into awards that entitle holders to our stock after the vesting conditions are met. Holders receive cash dividends on outstanding awards if provided in the original award.

The total number of shares of common stock available for grant under the plans at December 31, 2016, was 178 million.

Director Awards

Beginning in 2011, we granted only common stock awards under the LTICP to non-employee directors elected or re-elected at the annual meeting of stockholders and prorated awards to directors who join the Board at any other time. Stock awards vest immediately. Options also were granted to directors prior to 2011 and can be exercised after 12 months through the tenth anniversary of the grant date.

Restricted Share Rights

A summary of the status of our RSRs and restricted share awards at December 31, 2016, and changes during 2016 is presented in Table 19.3.

Table 19.3: Restricted Share Rights

	Number	Weighted-average grant-date fair value
Nonvested at January 1, 2016	40,634,792	$ 42.00
Granted	16,987,548	48.31
Vested	(21,361,210)	39.49
Canceled or forfeited	(582,544)	48.70
Nonvested at December 31, 2016	35,678,586	46.40

The weighted-average grant date fair value of RSRs granted during 2015 and 2014 was $55.34 and $46.79, respectively.

At December 31, 2016, there was $739 million of total unrecognized compensation cost related to nonvested RSRs. The cost is expected to be recognized over a weighted-average period of 2.4 years. The total fair value of RSRs that vested during 2016, 2015 and 2014 was $1.1 billion, $1.4 billion and $1.0 billion, respectively.

Performance Share Awards

Holders of PSAs are entitled to the related shares of common stock at no cost subject to the Company's achievement of specified performance criteria over a three-year period. PSAs are granted at a target number; based on the Company's performance, the number of awards that vest can be adjusted downward to zero and upward to a maximum of either 125% or 150% of target. The awards vest in the quarter after the end of the performance period. For PSAs whose performance period ended December 31, 2016, the determination of the number of performance shares that will vest will occur in first quarter of 2017 after review of the Company's performance by the Human Resources Committee of the Board of Directors. Beginning in 2013, PSAs granted include discretionary conditions that can result in forfeiture and are subject to variable accounting. For these awards, the associated compensation expense fluctuates with changes in our stock price and the estimated outcome of meeting the performance conditions. The total expense that will be recognized on these awards cannot be finalized until the determination of the awards that will vest.

A summary of the status of our PSAs at December 31, 2016, and changes during 2016 is in Table 19.4, based on the performance adjustments recognized as of December 2016.

Table 19.4: Performance Share Awards

	Number	Weighted-average grant-date fair value (1)
Nonvested at January 1, 2016	7,426,110	$ 40.34
Granted	3,799,667	44.73
Vested	(4,403,293)	36.85
Canceled or forfeited	(1,294,079)	49.52
Nonvested at December 31, 2016	5,528,405	43.99

(1) Reflects approval date fair value for grants subject to variable accounting.

The weighted-average grant date fair value of performance awards granted during 2015 and 2014 was $45.52 and $41.01, respectively.

At December 31, 2016, there was $32 million of total unrecognized compensation cost related to nonvested performance awards. The cost is expected to be recognized over a weighted-average period of 1.9 years. The total fair value of PSAs that vested during 2016, 2015 and 2014 was $220 million, $299 million, and $262 million, respectively.

Stock Options

Table 19.5 summarizes stock option activity and related information for the stock plans. Options assumed in mergers are included in the activity and related information for Incentive Compensation Plans if originally issued under an employee plan, and in the activity and related information for Director Awards if originally issued under a director plan.

Table 19.5: Stock Option Activity

	Number	Weighted-average exercise price	Weighted-average remaining contractual term (in yrs.)	Aggregate intrinsic value (in millions)
Incentive compensation plans				
Options outstanding as of December 31, 2015	75,319,760	$ 40.96		
Canceled or forfeited	(2,439,683)	271.84		
Exercised	(28,613,079)	31.09		
Options exercisable and outstanding as of December 31, 2016	44,266,998	34.62	1.5	$ 1,320
Director awards				
Options outstanding as of December 31, 2015	306,890	32.37		
Exercised	(107,070)	32.95		
Options exercisable and outstanding as of December 31, 2016	199,820	32.06	1.0	5

The total intrinsic value of options exercised during 2016, 2015 and 2014 was $546 million, $497 million and $805 million, respectively.

Cash received from the exercise of stock options for 2016, 2015 and 2014 was $893 million, $618 million and $1.2 billion, respectively.

We do not have a specific policy on repurchasing shares to satisfy share option exercises. Rather, we have a general policy on repurchasing shares to meet common stock issuance requirements for our benefit plans (including share option exercises), conversion of our convertible securities, acquisitions and other corporate purposes. Various factors determine the amount and timing of our share repurchases, including our capital requirements, the number of shares we expect to issue for acquisitions and employee benefit plans, market conditions (including the trading price of our stock), and regulatory and legal considerations. These factors can change at any time, and there can be no assurance as to the number of shares we will repurchase or when we will repurchase them.

Employee Stock Ownership Plan

The Wells Fargo & Company 401(k) Plan (401(k) Plan) is a defined contribution plan with an Employee Stock Ownership Plan (ESOP) feature. The ESOP feature enables the 401(k) Plan to borrow money to purchase our preferred or common stock. From 1994 through 2016, with the exception of 2009, we loaned money to the 401(k) Plan to purchase shares of our ESOP preferred stock. As our employer contributions are made to the 401(k) Plan and are used by the 401(k) Plan to make ESOP loan payments, the ESOP preferred stock in the 401(k) Plan is released and converted into our common stock shares. Dividends on the common stock shares allocated as a result of the release and conversion of the ESOP preferred stock reduce retained earnings, and the shares are considered outstanding for computing earnings per share. Dividends on the unallocated ESOP preferred stock do not reduce retained earnings, and the shares are not considered to be common stock equivalents for computing earnings per share. Loan principal and interest payments are made from our employer contributions to the 401(k) Plan, along with dividends paid on the ESOP preferred stock. With each principal and interest payment, a portion of the ESOP preferred stock is released and converted to common stock shares, which are allocated to the 401(k) Plan participants and invested in the Wells Fargo ESOP Fund within the 401(k) Plan.

Table 19.6 presents the balance of common stock and unreleased preferred stock held in the Wells Fargo ESOP fund, the fair value of unreleased ESOP preferred stock and the dividends on allocated shares of common stock and unreleased ESOP Preferred Stock paid to the 401(k) Plan.

Table 19.6: Common Stock and Unreleased Preferred Stock in the Wells Fargo ESOP Fund

			Shares outstanding
			December 31,
(in millions, except shares)	**2016**	2015	2014
Allocated shares (common)	**128,189,305**	137,418,176	136,801,782
Unreleased shares (preferred)	**1,439,181**	1,252,386	1,251,287
Fair value of unreleased ESOP preferred shares	**$ 1,439**	1,252	1,251

			Dividends paid
			Year ended December 31,
	2016	2015	2014
Allocated shares (common)	**$ 208**	201	186
Unreleased shares (preferred)	**169**	143	152

Deferred Compensation Plan for Independent Sales Agents

WF Deferred Compensation Holdings, Inc. is a wholly-owned subsidiary of the Parent formed solely to sponsor a deferred compensation plan for independent sales agents who provide investment, financial and other qualifying services for or with respect to participating affiliates.

The Nonqualified Deferred Compensation Plan for Independent Contractors, which became effective January 1, 2002, allowed participants to defer all or part of their eligible compensation payable to them by a participating affiliate. The plan was frozen for new compensation deferrals effective January 1, 2012. The Parent has fully and unconditionally guaranteed the deferred compensation obligations of WF Deferred Compensation Holdings, Inc. under the plan.

Note 20: Employee Benefits and Other Expenses

Pension and Postretirement Plans

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.

Prior to July 1, 2009, eligible employees' Cash Balance Plan accounts were allocated a compensation credit based on a percentage of their certified compensation; the freeze discontinued the allocation of compensation credits after June 30, 2009. Investment credits continue to be allocated to participants' accounts based on their accumulated balances.

Although not required, we made a $1.3 billion contribution to our Cash Balance Plan in 2016. We do not expect that we will be required to make a contribution to the Cash Balance Plan in 2017; however, this is dependent on the finalization of the actuarial valuation in 2017. Our decision of whether to make a contribution in 2017 will be based on various factors including the actual investment performance of plan assets during 2017. Given these uncertainties, we cannot estimate at this time the amount, if any, that we will contribute in 2017 to the Cash Balance Plan. For the nonqualified pension plans and postretirement benefit plans, there is no minimum required contribution beyond the amount needed to fund benefit payments; we may contribute more to our postretirement benefit plans dependent on various factors.

We provide health care and life insurance benefits for certain retired employees and we reserve the right to amend, modify or terminate any of the benefits at any time. In October 2016, the Wells Fargo & Company Retiree Plan (Retiree Plan), a postretirement plan, was amended and restated effective January 1, 2017. Significant changes included eliminating certain self-insured options and replacing these with a fully-insured Group Medicare Advantage Plan, adjusting employer subsidy amounts for the Group Medicare Advantage Plan premiums, and reducing retirement medical allowance amounts. These changes resulted in a net prior service credit of $177 million that reduced the Retiree Plan obligation.

The information set forth in the following tables is based on current actuarial reports using the measurement date of December 31 for our pension and postretirement benefit plans.

Table 20.1 presents the changes in the benefit obligation and the fair value of plan assets, the funded status, and the amounts recognized on the balance sheet.

Table 20.1: Changes in Benefit Obligation and Fair Value of Plan Assets

	December 31, 2016			December 31, 2015		
	Pension benefits			Pension benefits		
(in millions)	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Change in benefit obligation:						
Benefit obligation at beginning of year	$ 10,673	647	1,002	11,125	730	1,100
Service cost	3	—	—	2	—	6
Interest cost	422	26	39	429	25	42
Plan participants' contributions	—	—	72	—	—	68
Actuarial loss (gain)	336	9	(82)	(196)	(25)	(56)
Benefits paid	(649)	(52)	(132)	(676)	(82)	(139)
Medicare Part D subsidy	—	—	9	—	—	9
Curtailment	—	—	—	—	—	(25)
Amendment	—	—	(177)	—	—	—
Foreign exchange impact	(11)	—	—	(11)	(1)	(3)
Benefit obligation at end of year	10,774	630	731	10,673	647	1,002
Change in plan assets:						
Fair value of plan assets at beginning of year	8,836	—	568	9,626	—	624
Actual return on plan assets	642	—	30	(112)	—	2
Employer contribution	1,303	52	2	7	82	4
Plan participants' contributions	—	—	72	—	—	68
Benefits paid	(649)	(52)	(132)	(676)	(82)	(139)
Medicare Part D subsidy	—	—	9	—	—	9
Foreign exchange impact	(12)	—	—	(9)	—	—
Fair value of plan assets at end of year	10,120	—	549	8,836	—	568
Funded status at end of year	$ (654)	(630)	(182)	(1,837)	(647)	(434)
Amounts recognized on the balance sheet at end of year: Liabilities	$ (654)	(630)	(182)	(1,837)	(647)	(434)

Table 20.2 provides information for pension plans with benefit obligations in excess of plan assets.

Table 20.2: Pension Plans with Benefit Obligations in Excess of Plan Assets

(in millions)	Dec 31, 2016	Dec 31, 2015
Projected benefit obligation	$ 11,398	11,317
Accumulated benefit obligation	11,395	11,314
Fair value of plan assets	10,113	8,832

Table 20.3 presents the components of net periodic benefit cost and other comprehensive income.

Table 20.3: Net Periodic Benefit Cost and Other Comprehensive Income

	December 31, 2016			December 31, 2015			December 31, 2014		
	Pension benefits			Pension benefits			Pension benefits		
(in millions)	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Service cost	$ 3	—	—	2	—	6	1	—	7
Interest cost	422	26	39	429	25	42	465	27	42
Expected return on plan assets	(608)	—	(30)	(644)	—	(35)	(629)	—	(36)
Amortization of net actuarial loss (gain)	146	12	(5)	108	18	(4)	91	11	(28)
Amortization of prior service credit	—	—	(2)	—	—	(3)	—	—	(2)
Settlement loss	5	2	—	—	13	—	—	2	—
Curtailment gain	—	—	—	—	—	(43)	—	—	—
Net periodic benefit cost	(32)	40	2	(105)	56	(37)	(72)	40	(17)
Other changes in plan assets and benefit obligations recognized in other comprehensive income:									
Net actuarial loss (gain)	302	9	(82)	560	(25)	(23)	881	89	146
Amortization of net actuarial gain (loss)	(146)	(12)	5	(108)	(18)	4	(91)	(11)	28
Prior service cost (credit)	—	—	(177)	—	—	18	—	—	—
Amortization of prior service credit	—	—	2	—	—	3	—	—	2
Settlement	(5)	(2)	—	—	(13)	—	—	(2)	—
Total recognized in other comprehensive income	151	(5)	(252)	452	(56)	2	790	76	176
Total recognized in net periodic benefit cost and other comprehensive income	$ 119	35	(250)	347	—	(35)	718	116	159

Table 20.4 provides the amounts recognized in cumulative OCI (pre tax).

Table 20.4: Benefits Recognized in Cumulative OCI

	December 31, 2016			December 31, 2015		
	Pension benefits			Pension benefits		
(in millions)	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Net actuarial loss (gain)	$ 3,279	163	(242)	3,128	168	(165)
Net prior service credit	(1)	—	(175)	(1)	—	—
Total	$ 3,278	163	(417)	3,127	168	(165)

The net actuarial loss for the defined benefit pension plans and other post retirement plans that will be amortized from cumulative OCI into net periodic benefit cost in 2017 is $152 million. The net prior service credit for other post retirement plans that will be amortized from cumulative OCI into net periodic benefit cost in 2017 is $10 million.

Plan Assumptions

For additional information on our pension accounting assumptions, see Note 1 (Summary of Significant Accounting Policies). Table 20.5 presents the weighted-average discount rates used to estimate the projected benefit obligation for pension benefits.

Table 20.5: Discount Rates Used to Estimate Projected Benefit Obligation

	December 31, 2016			December 31, 2015		
	Pension benefits			Pension benefits		
	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Discount rate	4.00%	4.00	4.00	4.25	4.25	4.25

Table 20.6 presents the weighted-average assumptions used to determine the net periodic benefit cost.

Table 20.6: Weighted-Average Assumptions Used to Determine Net Periodic Benefit Cost

	December 31, 2016			December 31, 2015			December 31, 2014		
	Pension benefits			Pension benefits			Pension benefits		
	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits	Qualified	Non-qualified	Other benefits
Discount rate (1)	3.99%	4.11	4.16	4.00	3.60	4.00	4.75	4.16	4.50
Expected return on plan assets	6.75	N/A	5.75	7.00	N/A	6.00	7.00	N/A	6.00

(1) The discount rate for the 2016 qualified pension benefits and other benefits and for the 2016, 2015 and 2014 nonqualified pension benefits includes the impact of interim remeasurements.

To account for postretirement health care plans we used health care cost trend rates to recognize the effect of expected changes in future health care costs due to medical inflation, utilization changes, new technology, regulatory requirements and Medicare cost shifting. In determining the end of year benefit obligation we assumed an average annual increase of approximately 8.90%, for health care costs in 2017. This rate is assumed to trend down 0.50%-0.60% per year until the trend rate reaches an ultimate rate of 4.50% in 2026. The 2016 periodic benefit cost was determined using an initial annual trend rate of 9.30%. This rate was assumed to decrease 0.40%-0.60% per year until the trend rate reached an ultimate rate of 5.00% in 2024. Increasing the assumed health care trend by one percentage point in each year would increase the benefit obligation as of December 31, 2016, by $19 million and the total of the interest cost and service cost components of the net periodic benefit cost for 2016 by $1 million. Decreasing the assumed health care trend by one percentage point in each year would decrease the benefit obligation as of December 31, 2016, by $17 million and the total of the interest cost and service cost components of the net periodic benefit cost for 2016 by $1 million.

Investment Strategy and Asset Allocation

We seek to achieve the expected long-term rate of return with a prudent level of risk given the benefit obligations of the pension plans and their funded status. Our overall investment strategy is designed to provide our Cash Balance Plan with long-term growth opportunities while ensuring that risk is mitigated through diversification across numerous asset classes and various investment strategies. We target the asset allocation for our Cash Balance Plan at a target mix range of 25%-45% equities, 45%-65% fixed income, and approximately 10% in real estate, venture capital, private equity and other investments. The Employee Benefit Review Committee (EBRC), which includes several members of senior management, formally reviews the investment risk and performance of our Cash Balance Plan on a quarterly basis. Annual Plan liability analysis and periodic asset/liability evaluations are also conducted.

Other benefit plan assets include (1) assets held in a 401(h) trust, which are invested with a target mix of 40%-60% for both equities and fixed income, and (2) assets held in the Retiree Medical Plan Voluntary Employees' Beneficiary Association (VEBA) trust, which are invested with a general target asset mix of 20%-40% equities and 60%-80% fixed income. In addition, the strategy for the VEBA trust assets considers the effect of income taxes by utilizing a combination of variable annuity and low turnover investment strategies. Members of the EBRC formally review the investment risk and performance of these assets on a quarterly basis.

Projected Benefit Payments

Future benefits that we expect to pay under the pension and other benefit plans are presented in Table 20.7.

Table 20.7: Projected Benefit Payments

	Pension benefits		
(in millions)	Qualified	Non-qualified	Other Benefits
Year ended December 31,			
2017	$ 794	78	52
2018	763	56	55
2019	754	52	55
2020	751	50	55
2021	754	47	55
2022-2026	3,548	208	254

Fair Value of Plan Assets

Table 20.8 presents the balances of pension plan assets and other benefit plan assets measured at fair value. In accordance with new accounting guidance that we adopted effective January 1, 2016, we do not classify an investment in the fair value hierarchy (Level 1, 2 or 3), if we use the non-published net asset value (NAV) per share (or its equivalent) that has been communicated to us as an investor as a practical expedient to measure fair value. We generally use NAV per share as the fair value measurement for certain investments, including some hedge funds and real estate holdings. This guidance was required to be applied retrospectively. Accordingly, certain prior period fair value disclosures have been revised to conform with current period presentation. Investments with published NAVs continue to be classified in the fair value hierarchy. See Note 17 (Fair Values of Assets and Liabilities) for fair value hierarchy level definitions.

Table 20.8: Pension and Other Benefit Plan Assets

	Carrying value at year end							
	Pension plan assets				Other benefits plan assets			
(in millions)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
December 31, 2016								
Cash and cash equivalents	**$ 4**	**275**	**—**	**279**	**103**	**5**	**—**	**108**
Long duration fixed income (1)	**868**	**4,023**	**19**	**4,910**	**—**	**—**	**—**	**—**
Intermediate (core) fixed income (2)	**—**	**307**	**—**	**307**	**—**	**98**	**—**	**98**
High-yield fixed income	**5**	**258**	**—**	**263**	**—**	**—**	**—**	**—**
International fixed income	**54**	**261**	**—**	**315**	**—**	**—**	**—**	**—**
Domestic large-cap stocks (3)	**750**	**316**	**—**	**1,066**	**—**	**68**	**—**	**68**
Domestic mid-cap stocks	**205**	**124**	**—**	**329**	**—**	**18**	**—**	**18**
Domestic small-cap stocks	**185**	**12**	**—**	**197**	**—**	**10**	**—**	**10**
Global stocks (4)	**90**	**372**	**—**	**462**	**—**	**—**	**—**	**—**
International stocks (5)	**515**	**221**	**—**	**736**	**21**	**11**	**—**	**32**
Emerging market stocks	**—**	**277**	**—**	**277**	**—**	**—**	**—**	**—**
Real estate	**116**	**1**	**25**	**142**	**—**	**—**	**—**	**—**
Hedge funds/absolute return	**59**	**53**	**—**	**112**	**—**	**—**	**—**	**—**
Other	**—**	**77**	**8**	**85**	**3**	**—**	**23**	**26**
Plan investments - excluding investments at NAV	**$ 2,851**	**6,577**	**52**	**9,480**	**127**	**210**	**23**	**360**
Investments at NAV (6)				**592**				**189**
Net receivables				**48**				**—**
Total plan assets				**$10,120**				**549**
December 31, 2015								
Cash and cash equivalents	$ 5	109	—	114	119	3	—	122
Long duration fixed income (1)	446	3,253	16	3,715	—	—	—	—
Intermediate (core) fixed income (2)	4	499	—	503	—	110	—	110
High-yield fixed income	—	276	4	280	—	—	—	—
International fixed income	51	250	—	301	—	—	—	—
Domestic large-cap stocks (3)	809	328	—	1,137	—	71	—	71
Domestic mid-cap stocks	226	125	—	351	—	18	—	18
Domestic small-cap stocks	207	13	—	220	—	10	—	10
Global stocks (4)	48	161	—	209	—	—	—	—
International stocks (5)	463	287	—	750	22	11	—	33
Emerging market stocks	—	311	—	311	—	—	—	—
Real estate	109	1	33	143	—	—	—	—
Hedge funds/absolute return	—	55	—	55	—	—	—	—
Other	—	66	8	74	2	—	23	25
Plan investments - excluding investments at NAV	$ 2,368	5,734	61	8,163	143	223	23	389
Investments at NAV (6)				605				179
Net receivables				68				—
Total plan assets				$ 8,836				568

(1) This category includes a diversified mix of assets which are being managed in accordance with a duration target of approximately 10 years and an emphasis on corporate credit bonds combined with investments in U.S. Treasury securities and other U.S. agency and non-agency bonds.
(2) This category includes assets that are intermediate duration, investment grade bonds held in investment strategies benchmarked to the Barclays Capital U.S. Aggregate Bond Index. Also includes U.S. Treasury securities, agency and non-agency asset-backed bonds and corporate bonds.
(3) This category covers a broad range of investment styles, including active, enhanced index and passive approaches, as well as style characteristics of value, core and growth emphasized strategies. Assets in this category are currently diversified across eight unique investment strategies with no single investment manager strategy representing more than 2.5% of total plan assets.
(4) This category consists of four unique investment strategies providing exposure to broadly diversified, global equity investments, which generally have an allocation of 40-60% in U.S. domiciled equities and an equivalent allocation range in non-U.S. equities, with no single strategy representing more than 1.5% of total Plan assets.
(5) This category includes assets diversified across five unique investment strategies providing exposure to companies in developed market, non-U.S. countries with no single strategy representing more than 2.5% of total plan assets.
(6) Consists of certain investments that are measured at fair value using NAV per share (or its equivalent) as a practical expedient and are excluded from the fair value hierarchy.

Table 20.9 presents the changes in Level 3 pension plan and other benefit plan assets measured at fair value.

Table 20.9: Fair Value Level 3 Pension and Other Benefit Plan Assets

(in millions)		Balance beginning of year	Gains (losses) Realized	Unrealized (1)	Purchases, sales and settlements (net)	Transfers Into/ (Out of) Level 3	Balance end of year
Year ended December 31, 2016							
Pension plan assets:							
Long duration fixed income	**$**	**16**	**—**	**—**	**3**	**—**	**19**
High-yield fixed income		**4**	**—**	**—**	**(3)**	**(1)**	**—**
Real estate		**33**	**6**	**(1)**	**(13)**	**—**	**25**
Other		**8**	**—**	**—**	**—**	**—**	**8**
Total pension plan assets	**$**	**61**	**6**	**(1)**	**(13)**	**(1)**	**52**
Other benefits plan assets:							
Other	**$**	**23**	**1**	**—**	**(1)**	**—**	**23**
Total other benefit plan assets	**$**	**23**	**1**	**—**	**(1)**	**—**	**23**
Year ended December 31, 2015							
Pension plan assets:							
Long duration fixed income	$	12	—	—	1	3	16
High-yield fixed income		5	—	—	2	(3)	4
Real estate		32	—	1	—	—	33
Other		30	6	(4)	(24)	—	8
Total pension plan assets	$	79	6	(3)	(21)	—	61
Other benefits plan assets:							
Other	$	22	—	—	1	—	23
Total other benefit plan assets	$	22	—	—	1	—	23

(1) All unrealized gains (losses) relate to instruments held at period end.

VALUATION METHODOLOGIES Following is a description of the valuation methodologies used for assets measured at fair value.

Cash and Cash Equivalents – includes investments in collective investment funds valued at fair value based upon the fund's NAV per share held at year-end. The NAV per share is quoted on a private market that is not active; however, the NAV per share is based on underlying investments traded on an active market. This group of assets also includes investments in registered investment companies valued at the NAV per share held at year-end and in interest-bearing bank accounts.

Long Duration, Intermediate (Core), High-Yield, and International Fixed Income – includes investments traded on the secondary markets; prices are measured by using quoted market prices for similar securities, pricing models, and discounted cash flow analyses using significant inputs observable in the market where available, or a combination of multiple valuation techniques. This group of assets also includes highly liquid government securities such as U.S. Treasuries, limited partnerships valued at the NAV, registered investment companies and collective investment funds described above.

Domestic, Global, International and Emerging Market Stocks – investments in exchange-traded equity securities are valued at quoted market values. This group of assets also includes investments in registered investment companies and collective investment funds described above.

Real Estate – includes investments in real estate, which are valued at fair value based on an income capitalization valuation approach. Market values are estimates, and the actual market price of the real estate can only be determined by negotiation between independent third parties in sales transactions. This group of assets also includes investments in exchange-traded equity securities and collective investment funds described above.

Hedge Funds / Absolute Return - includes investments in registered investment companies, limited partnerships and collective investment funds, as described above.

Other – insurance contracts that are stated at cash surrender value. This group of assets also includes investments in collective investment funds described above.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. While we believe our valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Defined Contribution Retirement Plans

We sponsor a defined contribution retirement plan, the Wells Fargo & Company 401(k) Plan (401(k) Plan). Under the 401(k) Plan, after one month of service, eligible employees may contribute up to 50% of their certified compensation, subject to statutory limits. Eligible employees who complete one year of service are eligible for quarterly company matching contributions, which are generally dollar for dollar up to 6% of an employee's eligible certified compensation. Matching contributions are 100% vested. The 401(k) Plan includes an employer discretionary profit sharing contribution feature to allow us to make a contribution to eligible employees' 401(k) Plan accounts for a plan year. Eligible employees who complete one year of service are eligible for profit sharing contributions. Profit sharing contributions are vested after three years of service. Total defined contribution retirement plan expenses were $1.2 billion in 2016 and $1.1 billion in both 2015 and 2014.

Other Expenses

Table 20.10 presents expenses exceeding 1% of total interest income and noninterest income in any of the years presented that are not otherwise shown separately in the financial statements or Notes to Financial Statements.

Table 20.10: Other Expenses

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Outside professional services	$ **3,138**	2,665	2,689
Operating losses	**1,608**	1,871	1,249
Operating leases	**1,329**	278	220
Contract services	**1,203**	978	975
Outside data processing	**888**	985	1,034
Travel and entertainment	**704**	692	904

Note 21: Income Taxes

Table 21.1 presents the components of income tax expense.

Table 21.1: Income Tax Expense

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Current:			
Federal	**$ 6,712**	10,822	7,321
State and local	**1,395**	1,669	520
Foreign	**175**	139	112
Total current	**8,282**	12,630	7,953
Deferred:			
Federal	**1,498**	(2,047)	2,117
State and local	**296**	(235)	224
Foreign	**(1)**	17	13
Total deferred	**1,793**	(2,265)	2,354
Total	**$ 10,075**	10,365	10,307

The tax effects of our temporary differences that gave rise to significant portions of our deferred tax assets and liabilities are presented in Table 21.2.

Table 21.2: Net Deferred Tax Liability

	December 31,	
(in millions)	**2016**	2015
Deferred tax assets		
Allowance for loan losses	**$ 4,374**	4,363
Deferred compensation and employee benefits	**4,045**	4,589
Accrued expenses	**1,022**	1,460
PCI loans	**1,762**	1,816
Net unrealized losses on investment securities	**707**	—
Net operating loss and tax credit carry forwards	**391**	528
Other	**1,307**	1,448
Total deferred tax assets	**13,608**	14,204
Deferred tax assets valuation allowance	**(280)**	(358)
Deferred tax liabilities		
Mortgage servicing rights	**(5,292)**	(5,399)
Leasing	**(4,522)**	(3,866)
Mark to market, net	**(5,511)**	(5,471)
Intangible assets	**(1,001)**	(1,233)
Net unrealized gains on investment securities	**—**	(1,008)
Insurance reserves	**(1,588)**	(2,071)
Other	**(2,465)**	(2,063)
Total deferred tax liabilities	**(20,379)**	(21,111)
Net deferred tax liability (1)	**$ (7,051)**	(7,265)

(1) Included in accrued expenses and other liabilities.

Deferred taxes related to net unrealized gains (losses) on investment securities, net unrealized gains (losses) on derivatives, foreign currency translation, and employee benefit plan adjustments are recorded in cumulative OCI (see Note 23 (Other Comprehensive Income)). These associated adjustments increased OCI by $2.0 billion in 2016.

We have determined that a valuation reserve is required for 2016 in the amount of $280 million predominantly attributable to deferred tax assets in various state and foreign jurisdictions where we believe it is more likely than not that these deferred tax assets will not be realized. In these jurisdictions, carry back limitations, lack of sources of taxable income, and tax planning strategy limitations contributed to our conclusion that the deferred tax assets would not be realizable. We have concluded that it is more likely than not that the remaining deferred tax assets will be realized based on our history of earnings, sources of taxable income in carry back periods, and our ability to implement tax planning strategies.

At December 31, 2016, we had net operating loss carry forwards with related deferred tax assets of $391 million. If these carry forwards are not utilized, they will expire in varying amounts through 2036.

At December 31, 2016, we had undistributed foreign earnings of $2.4 billion related to foreign subsidiaries. We intend to reinvest these earnings indefinitely outside the U.S. and accordingly have not provided $653 million of income tax liability on these earnings.

Table 21.3 reconciles the statutory federal income tax expense and rate to the effective income tax expense and rate. Our effective tax rate is calculated by dividing income tax expense by income before income tax expense less the net income from noncontrolling interests.

Table 21.3: Effective Income Tax Expense and Rate

						December 31,
		2016		2015		2014
(in millions)	**Amount**	**Rate**	Amount	Rate	Amount	Rate
Statutory federal income tax expense and rate	**$ 11,204**	**35.0%**	$ 11,641	35.0%	$ 11,677	35.0%
Change in tax rate resulting from:						
State and local taxes on income, net of federal income tax benefit	**1,004**	**3.1**	1,025	3.1	971	2.9
Tax-exempt interest	**(725)**	**(2.2)**	(641)	(1.9)	(550)	(1.6)
Tax credits	**(1,251)**	**(3.9)**	(1,108)	(3.3)	(1,074)	(3.2)
Life insurance	**(188)**	**(0.6)**	(186)	(0.6)	(179)	(0.5)
Leveraged lease tax expense	**124**	**0.4**	140	0.4	158	0.5
Other	**(93)**	**(0.3)**	(506)	(1.5)	(696)	(2.2)
Effective income tax expense and rate	**$ 10,075**	**31.5%**	$ 10,365	31.2%	$ 10,307	30.9%

The effective tax rate for 2016 reflected a smaller net benefit from the reduction to the reserve for uncertain tax positions resulting from settlements with tax authorities, partially offset by a net increase in tax benefits related to tax credit investments. The effective tax rate for 2015 included net reductions in reserves for uncertain tax positions primarily due to audit resolutions of prior period matters with U.S. federal and state taxing authorities. The effective tax rate for 2014 included a net reduction in the reserve for uncertain tax positions primarily due to the resolution of prior period matters with state taxing authorities.

Table 21.4 presents the change in unrecognized tax benefits.

Table 21.4: Change in Unrecognized Tax Benefits

		Year ended December 31,
(in millions)	**2016**	2015
Balance at beginning of year	**$ 4,806**	5,002
Additions:		
For tax positions related to the current year	**284**	196
For tax positions related to prior years	**177**	225
Reductions:		
For tax positions related to prior years	**(127)**	(413)
Lapse of statute of limitations	**(27)**	(22)
Settlements with tax authorities	**(84)**	(182)
Balance at end of year	**$ 5,029**	4,806

Of the $5.0 billion of unrecognized tax benefits at December 31, 2016, approximately $3.2 billion would, if recognized, affect the effective tax rate. The remaining $1.8 billion of unrecognized tax benefits relates to income tax positions on temporary differences.

We recognize interest and penalties as a component of income tax expense. As of December 31, 2016 and 2015, we have accrued approximately $589 million and $524 million for the payment of interest and penalties, respectively. In 2016, we recognized in income tax expense a net tax expense related to interest and penalties of $136 million. In 2015, we recognized in income tax expense a net tax benefit related to interest and penalties of $79 million.

We are subject to U.S. federal income tax as well as income tax in numerous state and foreign jurisdictions. We are routinely examined by tax authorities in these various jurisdictions. The IRS is currently examining the 2011 through 2014 consolidated federal income tax returns of Wells Fargo & Company and its subsidiaries. In addition, we are currently subject to examination by various state, local and foreign taxing authorities. With few exceptions, Wells Fargo and its subsidiaries are not subject to federal, state, local and foreign income tax examinations for taxable years prior to 2007.

We are litigating or appealing various issues related to prior IRS examinations for the periods 2003 through 2010. For the 2003 through 2006 periods, we have paid the IRS the contested income tax and interest associated with these issues and refund claims have been filed for the respective years. It is possible that one or more of these examinations, appeals or litigation may be resolved within the next twelve months resulting in a decrease of up to $900 million to our gross unrecognized tax benefits.

Note 22: Earnings Per Common Share

Table 22.1 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 private share repurchases and the Consolidated Statement of Changes in Equity and Note 19 (Common Stock and Stock Plans) for information about stock and options activity and terms and conditions of warrants.

Table 22.1: Earnings Per Common Share Calculations

		Year ended December 31,		
(in millions, except per share amounts)		**2016**	2015	2014
Wells Fargo net income	$	**21,938**	22,894	23,057
Less: Preferred stock dividends and other		**1,565**	1,424	1,236
Wells Fargo net income applicable to common stock (numerator)	$	**20,373**	21,470	21,821
Earnings per common share				
Average common shares outstanding (denominator)		**5,052.8**	5,136.5	5,237.2
Per share	$	**4.03**	4.18	4.17
Diluted earnings per common share				
Average common shares outstanding		**5,052.8**	5,136.5	5,237.2
Add: Stock options		**18.9**	26.7	32.9
Restricted share rights		**25.9**	32.8	41.6
Warrants		**10.7**	13.8	12.7
Diluted average common shares outstanding (denominator)		**5,108.3**	5,209.8	5,324.4
Per share	$	**3.99**	4.12	4.10

Table 22.2 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 22.2: Outstanding Anti-Dilutive Options

	Weighted-average shares		
	Year ended December 31,		
(in millions)	**2016**	2015	2014
Options	**3.2**	5.7	8.0

Note 23: Other Comprehensive Income

Table 23.1 provides the components of other comprehensive income (OCI), reclassifications to net income by income statement line item, and the related tax effects.

Table 23.1: Summary of Other Comprehensive Income

									Year ended December 31,
			2016			2015			2014
(in millions)	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax	Before tax	Tax effect	Net of tax
Investment securities:									
Net unrealized gains (losses) arising during the period	$ (3,458)	1,302	(2,156)	(3,318)	1,237	(2,081)	5,426	(2,111)	3,315
Reclassification of net (gains) losses to net income:									
Interest income on investment securities (1)	7	(3)	4	(1)	—	(1)	(37)	14	(23)
Net gains on debt securities	(942)	355	(587)	(952)	356	(596)	(593)	224	(369)
Net gains from equity investments	(300)	113	(187)	(571)	213	(358)	(901)	340	(561)
Other noninterest income	(5)	2	(3)	(6)	3	(3)	(1)	—	(1)
Subtotal reclassifications to net income	(1,240)	467	(773)	(1,530)	572	(958)	(1,532)	578	(954)
Net change	(4,698)	1,769	(2,929)	(4,848)	1,809	(3,039)	3,894	(1,533)	2,361
Derivatives and hedging activities:									
Net unrealized gains arising during the period	177	(67)	110	1,549	(584)	965	952	(359)	593
Reclassification of net (gains) losses to net income:									
Interest income on investment securities	—	—	—	(3)	1	(2)	(1)	—	(1)
Interest income on loans	(1,043)	393	(650)	(1,103)	416	(687)	(588)	222	(366)
Interest expense on long-term debt	14	(5)	9	17	(6)	11	44	(17)	27
Subtotal reclassifications to net income	(1,029)	388	(641)	(1,089)	411	(678)	(545)	205	(340)
Net change	(852)	321	(531)	460	(173)	287	407	(154)	253
Defined benefit plans adjustments:									
Net actuarial losses and prior service credits arising during the period	(52)	(40)	(92)	(512)	193	(319)	(1,116)	420	(696)
Reclassification of amounts to net periodic benefit costs (2):									
Amortization of net actuarial loss	153	(57)	96	122	(46)	76	74	(28)	46
Settlements and other	5	(1)	4	(8)	3	(5)	—	—	—
Subtotal reclassifications to net periodic benefit costs	158	(58)	100	114	(43)	71	74	(28)	46
Net change	106	(98)	8	(398)	150	(248)	(1,042)	392	(650)
Foreign currency translation adjustments:									
Net unrealized losses arising during the period	(3)	4	1	(137)	(12)	(149)	(60)	(5)	(65)
Reclassification of net (gains) losses to net income:									
Net gains from equity investments	—	—	—	(5)	—	(5)	—	—	—
Other noninterest income	—	—	—	—	—	—	6	—	6
Subtotal reclassifications to net income	—	—	—	(5)	—	(5)	6	—	6
Net change	(3)	4	1	(142)	(12)	(154)	(54)	(5)	(59)
Other comprehensive income (loss)	$ (5,447)	1,996	(3,451)	(4,928)	1,774	(3,154)	3,205	(1,300)	1,905
Less: Other comprehensive income (loss) from noncontrolling interests, net of tax			(17)			67			(227)
Wells Fargo other comprehensive income (loss), net of tax			$ (3,434)			(3,221)			2,132

(1) Represents net unrealized gains and losses amortized over the remaining lives of securities that were transferred from the available-for-sale portfolio to the held-to-maturity portfolio.
(2) These items are included in the computation of net periodic benefit cost, which is recorded in employee benefits expense (see Note 20 (Employee Benefits and Other Expenses) for additional details).

Note 23: Other Comprehensive Income *(continued)*

Table 23.2: Cumulative OCI Balances

(in millions)	Investment securities	Derivatives and hedging activities	Defined benefit plans adjustments	Foreign currency translation adjustments	Cumulative other comprehensive income (loss)
Balance, December 31, 2013	$ 2,338	80	(1,053)	21	1,386
Net unrealized gains (losses) arising during the period	3,315	593	(696)	(65)	3,147
Amounts reclassified from accumulated other comprehensive income	(954)	(340)	46	6	(1,242)
Net change	2,361	253	(650)	(59)	1,905
Less: Other comprehensive loss from noncontrolling interests	(227)	—	—	—	(227)
Balance, December 31, 2014	4,926	333	(1,703)	(38)	3,518
Net unrealized gains (losses) arising during the period	(2,081)	965	(319)	(149)	(1,584)
Amounts reclassified from accumulated other comprehensive income	(958)	(678)	71	(5)	(1,570)
Net change	(3,039)	287	(248)	(154)	(3,154)
Less: Other comprehensive income (loss) from noncontrolling interests	74	—	—	(7)	67
Balance, December 31, 2015	1,813	620	(1,951)	(185)	297
Net unrealized gains (losses) arising during the period	**(2,156)**	**110**	**(92)**	**1**	**(2,137)**
Amounts reclassified from accumulated other comprehensive income	**(773)**	**(641)**	**100**	**—**	**(1,314)**
Net change	**(2,929)**	**(531)**	**8**	**1**	**(3,451)**
Less: Other comprehensive loss from noncontrolling interests	**(17)**	**—**	**—**	**—**	**(17)**
Balance, December 31, 2016	**$ (1,099)**	**89**	**(1,943)**	**(184)**	**(3,137)**

Note 24: 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.

Community Banking offers a complete line of diversified financial products and services to consumers and small businesses with annual sales generally up to $5 million in which the owner generally is the financial decision maker. Community Banking also offers investment management and other services to retail customers and securities brokerage through affiliates. These products and services include the *Wells Fargo Advantage Funds*[SM], a family of mutual funds. Loan products include lines of credit, automobile floor plan lines, equity lines and loans, equipment and transportation loans, education loans, origination and purchase of residential mortgage loans and servicing of mortgage loans and credit cards. Other credit products and financial services available to small businesses and their owners include equipment leases, real estate and other commercial financing, Small Business Administration financing, venture capital financing, cash management, payroll services, retirement plans, credit cards, and merchant payment processing. Community Banking also offers private label financing solutions for retail merchants across the United States and purchases retail installment contracts from automobile dealers in the United States and Puerto Rico. Consumer and business deposit products include checking accounts, savings deposits, market rate accounts, Individual Retirement Accounts, time deposits, global remittance and debit cards.

Community Banking serves customers through a complete range of channels, including traditional and in-branch locations, business centers, ATMs, Online and Mobile Banking, and contact centers.

The Community Banking segment also includes the results of our Corporate Treasury activities net of allocations in support of other segments and results of investments in our affiliated venture capital partnerships.

Wholesale Banking provides financial solutions to businesses across the United States with annual sales generally in excess of $5 million and to financial institutions globally. Wholesale Banking provides a complete line of business banking, commercial, corporate, capital markets, cash management and real estate banking products and services. These include traditional commercial loans and lines of credit, letters of credit, asset-based lending, equipment leasing, international trade facilities, trade financing, collection services, foreign exchange services, treasury management, merchant payment processing, institutional fixed-income sales, interest rate, commodity and equity risk management, online/electronic products such as the *Commercial Electronic Office®* (*CEO®*) portal, insurance, corporate trust fiduciary and agency services, and investment banking services. Wholesale Banking also supports the CRE market with products and services such as construction loans for commercial and residential development, land acquisition and development loans, secured and unsecured lines of credit, interim financing arrangements for completed structures, rehabilitation loans, affordable housing loans and letters of credit, permanent loans for securitization, CRE loan servicing and real estate and mortgage brokerage services.

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 customers' brokerage needs, supply retirement and trust services to institutional clients and provide investment management capabilities delivered to global institutional clients through separate accounts and the Wells Fargo Funds.

Other 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.

Note 24: Operating Segments *(continued)*

Table 24.1 presents our results by operating segment.

Table 24.1: Operating Segments

(income/expense in millions, average balances in billions)		Community Banking	Wholesale Banking	Wealth and Investment Management	Other (1)	Consolidated Company
2016						
Net interest income (2)	**$**	**29,833**	**16,052**	**3,913**	**(2,044)**	**47,754**
Provision (reversal of provision) for credit losses		**2,691**	**1,073**	**(5)**	**11**	**3,770**
Noninterest income		**19,033**	**12,490**	**12,033**	**(3,043)**	**40,513**
Noninterest expense		**27,422**	**16,126**	**12,059**	**(3,230)**	**52,377**
Income (loss) before income tax expense (benefit)		**18,753**	**11,343**	**3,892**	**(1,868)**	**32,120**
Income tax expense (benefit)		**6,182**	**3,136**	**1,467**	**(710)**	**10,075**
Net income (loss) before noncontrolling interests		**12,571**	**8,207**	**2,425**	**(1,158)**	**22,045**
Less: Net income (loss) from noncontrolling interests		**136**	**(28)**	**(1)**	**—**	**107**
Net income (loss) (3)	**$**	**12,435**	**8,235**	**2,426**	**(1,158)**	**21,938**
2015						
Net interest income (2)	$	29,242	14,350	3,478	(1,769)	45,301
Provision (reversal of provision) for credit losses		2,427	27	(25)	13	2,442
Noninterest income		20,099	11,554	12,299	(3,196)	40,756
Noninterest expense		26,981	14,116	12,067	(3,190)	49,974
Income (loss) before income tax expense (benefit)		19,933	11,761	3,735	(1,788)	33,641
Income tax expense (benefit)		6,202	3,424	1,420	(681)	10,365
Net income (loss) before noncontrolling interests		13,731	8,337	2,315	(1,107)	23,276
Less: Net income (loss) from noncontrolling interests		240	143	(1)	—	382
Net income (loss) (3)	$	13,491	8,194	2,316	(1,107)	22,894
2014						
Net interest income (2)	$	27,999	14,073	3,032	(1,577)	43,527
Provision (reversal of provision) for credit losses		1,796	(382)	(50)	31	1,395
Noninterest income		20,159	11,325	12,237	(2,901)	40,820
Noninterest expense		26,290	13,831	11,993	(3,077)	49,037
Income (loss) before income tax expense (benefit)		20,072	11,949	3,326	(1,432)	33,915
Income tax expense (benefit)		6,049	3,540	1,262	(544)	10,307
Net income (loss) before noncontrolling interests		14,023	8,409	2,064	(888)	23,608
Less: Net income from noncontrolling interests		337	210	4	—	551
Net income (loss) (3)	$	13,686	8,199	2,060	(888)	23,057
2016						
Average loans	**$**	**486.9**	**449.3**	**67.3**	**(53.5)**	**950.0**
Average assets		**977.3**	**782.0**	**211.5**	**(85.4)**	**1,885.4**
Average deposits		**701.2**	**438.6**	**187.8**	**(77.0)**	**1,250.6**
2015						
Average loans		475.9	397.3	60.1	(47.9)	885.4
Average assets		910.0	724.9	192.8	(84.8)	1,742.9
Average deposits		654.4	438.9	172.3	(71.5)	1,194.1

(1) Includes the elimination of certain items that are included in more than one business segment, substantially all of which represents products and services for Wealth and Investment Management customers served through Community Banking distribution channels.
(2) Net interest income is the difference between interest earned on assets and the cost of liabilities to fund those assets. Interest earned includes actual interest earned on segment assets and, if the segment has excess liabilities, interest credits for providing funding to other segments. The cost of liabilities includes interest expense on segment liabilities and, if the segment does not have enough liabilities to fund its assets, a funding charge based on the cost of excess liabilities from another segment.
(3) Represents segment net income (loss) for Community Banking; Wholesale Banking; and Wealth and Investment Management segments and Wells Fargo net income for the consolidated company.

Note 25: Parent-Only Financial Statements

The following tables present Parent-only condensed financial statements.

Table 25.1: Parent-Only Statement of Income

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Income			
Dividends from subsidiaries:			
Bank	**$ 12,490**	13,804	15,077
Nonbank	**286**	542	526
Interest income from subsidiaries	**1,615**	907	772
Other interest income	**155**	199	216
Other income	**177**	576	1,032
Total income	**14,723**	16,028	17,623
Expense			
Interest expense:			
Indebtedness to nonbank subsidiaries	**387**	325	357
Short-term borrowings	**—**	1	7
Long-term debt	**2,619**	1,784	1,540
Other	**19**	4	5
Noninterest expense	**1,300**	932	797
Total expense	**4,325**	3,046	2,706
Income before income tax benefit and equity in undistributed income of subsidiaries	**10,398**	12,982	14,917
Income tax benefit	**(1,152)**	(870)	(926)
Equity in undistributed income of subsidiaries	**10,388**	9,042	7,214
Net income	**$ 21,938**	22,894	23,057

Note 25: Parent-Only Financial Statements *(continued)*

Table 25.2: Parent-Only Statement of Comprehensive Income

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Net income	**$ 21,938**	22,894	23,057
Other comprehensive income (loss), net of tax:			
Investment securities	**(76)**	52	142
Derivatives and hedging activities	**—**	—	12
Defined benefit plans adjustment	**(20)**	(254)	(633)
Equity in other comprehensive income (loss) of subsidiaries	**(3,338)**	(3,019)	2,611
Other comprehensive income (loss), net of tax:	**(3,434)**	(3,221)	2,132
Total comprehensive income	**$ 18,504**	19,673	25,189

Table 25.3: Parent-Only Balance Sheet

	December 31,	
(in millions)	**2016**	2015
Assets		
Cash and cash equivalents due from:		
Subsidiary banks	**$ 36,657**	36,162
Nonaffiliates	**3**	4
Investment securities issued by:		
Subsidiary banks	**15,009**	14,992
Nonaffiliates	**9,271**	8,201
Loans to subsidiaries:		
Bank	**54,937**	47,363
Nonbank	**41,343**	35,327
Investments in subsidiaries:		
Bank	**174,328**	169,081
Nonbank	**27,222**	25,638
Other assets	**6,750**	6,857
Total assets	**$ 365,520**	343,625
Liabilities and equity		
Accrued expenses and other liabilities	**7,064**	8,135
Long-term debt	**133,920**	117,791
Indebtedness to nonbank subsidiaries	**24,955**	24,701
Total liabilities	**165,939**	150,627
Stockholders' equity	**199,581**	192,998
Total liabilities and equity	**$ 365,520**	343,625

Table 25.4: Parent-Only Statement of Cash Flows

	Year ended December 31,		
(in millions)	**2016**	2015	2014
Cash flows from operating activities:			
Net cash provided by operating activities	$ **9,875**	12,337	18,019
Cash flows from investing activities:			
Available-for-sale securities:			
Sales proceeds	**5,472**	5,345	1,196
Prepayments and maturities:			
Subsidiary banks	**15,000**	7,750	25
Purchases:			
Subsidiary banks	**(15,000)**	(12,750)	(10,025)
Nonaffiliates	**(6,544)**	(2,709)	(14)
Loans:			
Net repayments from (advances to) subsidiaries	**3,174**	460	(2,199)
Capital notes and term loans made to subsidiaries	**(32,641)**	(29,860)	(11,275)
Principal collected on notes/loans made to subsidiaries	**15,164**	301	2,526
Net increase in investment in subsidiaries	**(606)**	(1,283)	(1,096)
Other, net	**18**	714	470
Net cash used by investing activities	**(15,963)**	(32,032)	(20,392)
Cash flows from financing activities:			
Net increase in short-term borrowings and indebtedness to subsidiaries	**789**	2,084	2,314
Long-term debt:			
Proceeds from issuance	**34,362**	31,487	22,627
Repayment	**(15,096)**	(9,194)	(8,659)
Preferred stock:			
Proceeds from issuance	**2,101**	2,972	2,775
Cash dividends paid	**(1,566)**	(1,426)	(1,235)
Common stock:			
Proceeds from issuance	**1,415**	1,726	1,840
Repurchased	**(8,116)**	(8,697)	(9,414)
Cash dividends paid	**(7,472)**	(7,400)	(6,908)
Excess tax benefits related to stock option payments	**283**	453	453
Other, net	**(118)**	10	37
Net cash provided by financing activities	**6,582**	12,015	3,830
Net change in cash and due from banks	**494**	(7,680)	1,457
Cash and due from banks at beginning of year	**36,166**	43,846	42,389
Cash and due from banks at end of year	$ **36,660**	36,166	43,846

Note 26: 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 26.1 presents regulatory capital information for Wells Fargo & Company and the Bank using Basel III, which increased minimum required capital ratios, and introduced a minimum Common Equity Tier 1 (CET1) ratio. We must report the lower of our CET1, tier 1 and total capital ratios calculated under the Standardized Approach and under the Advanced Approach in the assessment of our capital adequacy. The information presented reflects risk-weighted assets (RWAs) under the Standardized and Advanced Approaches with Transition Requirements. The Standardized Approach applies assigned risk weights to broad risk categories, while the calculation of RWAs under the Advanced Approach differs by requiring applicable banks to utilize a risk-sensitive methodology, which relies upon the use of internal credit models, and includes an operational risk component. The Basel III revised definition of capital, and changes are being phased-in effective January 1, 2014, through the end of 2021.

The Bank is an approved seller/servicer of mortgage loans and is required to maintain minimum levels of shareholders' equity, as specified by various agencies, including the United States Department of Housing and Urban Development, GNMA, FHLMC and FNMA. At December 31, 2016, 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 26.1: Regulatory Capital Information

	Wells Fargo & Company				Wells Fargo Bank, N.A.			
	December 31, 2016		December 31, 2015		**December 31, 2016**		December 31, 2015	
(in millions, except ratios)	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach	Advanced Approach	Standardized Approach
Regulatory capital:								
Common equity tier 1	**$ 148,785**	**148,785**	144,247	144,247	**132,225**	**132,225**	126,901	126,901
Tier 1	**171,364**	**171,364**	164,584	164,584	**132,225**	**132,225**	126,901	126,901
Total	**204,425**	**214,877**	195,153	205,529	**145,665**	**155,281**	140,545	149,969
Assets:								
Risk-weighted	**$ 1,274,589**	**1,336,198**	1,263,182	1,303,148	**1,143,681**	**1,222,876**	1,100,896	1,197,648
Adjusted average (1)	**1,914,802**	**1,914,802**	1,757,107	1,757,107	**1,714,524**	**1,714,524**	1,584,297	1,584,297
Regulatory capital ratios:								
Common equity tier 1 capital	**11.67 %**	**11.13 ***	11.42	11.07 *	**11.56**	**10.81 ***	11.53	10.60 *
Tier 1 capital	**13.44**	**12.82 ***	13.03	12.63 *	**11.56**	**10.81 ***	11.53	10.60 *
Total capital	**16.04 ***	**16.08**	15.45 *	15.77	**12.74**	**12.70 ***	12.77	12.52 *
Tier 1 leverage (1)	**8.95**	**8.95**	9.37	9.37	**7.71**	**7.71**	8.01	8.01

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

(1) The leverage ratio consists of Tier 1 capital divided by quarterly average total assets, excluding goodwill and certain other items.

Table 26.2 presents the minimum required regulatory capital ratios under Transition Requirements to which the Company and the Bank were subject as of December 31, 2016 and December 31, 2015.

Table 26.2: Minimum Required Regulatory Capital Ratios – Transition Requirements (1)

	Wells Fargo & Company		Wells Fargo Bank, N.A.	
	December 31, 2016	December 31, 2015	**December 31, 2016**	December 31, 2015
Regulatory capital ratios:				
Common equity tier 1 capital	**5.625 %**	4.500	**5.125**	4.500
Tier 1 capital	**7.125**	6.000	**6.625**	6.000
Total capital	**9.125**	8.000	**8.625**	8.000
Tier 1 leverage	**4.000**	4.000	**4.000**	4.000

(1) At December 31, 2016, under transition requirements, the CET1, tier 1 and total capital minimum ratio requirements for Wells Fargo & Company include a capital conservation buffer of 0.625% and a global systemically important bank (G-SIB) surcharge of 0.5%. Only the 0.625% capital conservation buffer applies to the Bank at December 31, 2016.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Wells Fargo & Company:

We have audited the accompanying consolidated balance sheet of Wells Fargo & Company and Subsidiaries (the Company) as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2016. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 1, 2017, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

KPMG LLP

San Francisco, California
March 1, 2017

Quarterly Financial Data

Condensed Consolidated Statement of Income - Quarterly (Unaudited)

				2016				2015
				Quarter ended				Quarter ended
(in millions, except per share amounts)	Dec 31,	Sep 30,	Jun 30,	Mar 31,	Dec 31,	Sep 30,	Jun 30,	Mar 31,
Interest income	$14,058	13,487	13,146	12,972	12,643	12,445	12,226	11,963
Interest expense	1,656	1,535	1,413	1,305	1,055	988	956	977
Net interest income	12,402	11,952	11,733	11,667	11,588	11,457	11,270	10,986
Provision for credit losses	805	805	1,074	1,086	831	703	300	608
Net interest income after provision for credit losses	11,597	11,147	10,659	10,581	10,757	10,754	10,970	10,378
Noninterest income								
Service charges on deposit accounts	1,357	1,370	1,336	1,309	1,329	1,335	1,289	1,215
Trust and investment fees	3,698	3,613	3,547	3,385	3,511	3,570	3,710	3,677
Card fees	1,001	997	997	941	966	953	930	871
Other fees	962	926	906	933	1,040	1,099	1,107	1,078
Mortgage banking	1,417	1,667	1,414	1,598	1,660	1,589	1,705	1,547
Insurance	262	293	286	427	427	376	461	430
Net gains (losses) from trading activities	(109)	415	328	200	99	(26)	133	408
Net gains on debt securities	145	106	447	244	346	147	181	278
Net gains from equity investments	306	140	189	244	423	920	517	370
Lease income	523	534	497	373	145	189	155	132
Other	(382)	315	482	874	52	266	(140)	286
Total noninterest income	9,180	10,376	10,429	10,528	9,998	10,418	10,048	10,292
Noninterest expense								
Salaries	4,193	4,224	4,099	4,036	4,061	4,035	3,936	3,851
Commission and incentive compensation	2,478	2,520	2,604	2,645	2,457	2,604	2,606	2,685
Employee benefits	1,101	1,223	1,244	1,526	1,042	821	1,106	1,477
Equipment	642	491	493	528	640	459	470	494
Net occupancy	710	718	716	711	725	728	710	723
Core deposit and other intangibles	301	299	299	293	311	311	312	312
FDIC and other deposit assessments	353	310	255	250	258	245	222	248
Other	3,437	3,483	3,156	3,039	3,105	3,196	3,107	2,717
Total noninterest expense	13,215	13,268	12,866	13,028	12,599	12,399	12,469	12,507
Income before income tax expense	7,562	8,255	8,222	8,081	8,156	8,773	8,549	8,163
Income tax expense	2,258	2,601	2,649	2,567	2,533	2,790	2,763	2,279
Net income before noncontrolling interests	5,304	5,654	5,573	5,514	5,623	5,983	5,786	5,884
Less: Net income from noncontrolling interests	30	10	15	52	48	187	67	80
Wells Fargo net income	$ 5,274	5,644	5,558	5,462	5,575	5,796	5,719	5,804
Less: Preferred stock dividends and other	402	401	385	377	372	353	356	343
Wells Fargo net income applicable to common stock	4,872	5,243	5,173	5,085	5,203	5,443	5,363	5,461
Per share information								
Earnings per common share	$ 0.97	1.04	1.02	1.00	1.02	1.06	1.04	1.06
Diluted earnings per common share	0.96	1.03	1.01	0.99	1.00	1.05	1.03	1.04
Dividends declared per common share	0.380	0.380	0.380	0.375	0.375	0.375	0.375	0.350
Average common shares outstanding	5,025.6	5,043.4	5,066.9	5,075.7	5,108.5	5,125.8	5,151.9	5,160.4
Diluted average common shares outstanding	5,078.2	5,094.6	5,118.1	5,139.4	5,177.9	5,193.8	5,220.5	5,243.6
Market price per common share (1)								
High	$ 58.02	51.00	51.41	53.27	56.34	58.77	58.26	56.29
Low	43.55	44.10	44.50	44.50	49.51	47.75	53.56	50.42
Quarter-end	55.11	44.28	47.33	48.36	54.36	51.35	56.24	54.40

(1) Based on daily prices reported on the New York Stock Exchange Composite Transaction Reporting System.

Average Balances, Yields and Rates Paid (Taxable-Equivalent basis) - Quarterly (1)(2) - (Unaudited)

	Quarter ended December 31,					
	2016			2015		
(in millions)	Average balance	Yields/ rates	Interest income/ expense	Average balance	Yields/ rates	Interest income/ expense
Earning assets						
Federal funds sold, securities purchased under resale agreements and other short-term investments	$ 273,073	0.56%	$ 381	274,589	0.28%	$ 195
Trading assets	102,757	2.96	761	68,833	3.33	573
Investment securities (3):						
Available-for-sale securities:						
Securities of U.S. Treasury and federal agencies	25,935	1.53	99	34,617	1.58	137
Securities of U.S. states and political subdivisions	53,917	4.06	547	49,300	4.37	539
Mortgage-backed securities:						
Federal agencies	147,980	2.37	875	102,281	2.79	712
Residential and commercial	16,456	5.87	242	21,502	5.51	297
Total mortgage-backed securities	164,436	2.72	1,117	123,783	3.26	1,009
Other debt and equity securities	52,692	3.71	492	52,701	3.35	444
Total available-for-sale securities	296,980	3.03	2,255	260,401	3.27	2,129
Held-to-maturity securities:						
Securities of U.S. Treasury and federal agencies	44,686	2.20	246	44,656	2.18	246
Securities of U.S. states and political subdivisions	4,738	5.31	63	2,158	6.07	33
Federal agency and other mortgage-backed securities	46,009	1.81	209	28,185	2.42	170
Other debt securities	3,597	2.26	20	4,876	1.77	22
Total held-to-maturity securities	99,030	2.17	538	79,875	2.35	471
Total investment securities	396,010	2.82	2,793	340,276	3.05	2,600
Mortgages held for sale (4)	27,503	3.43	235	19,189	3.66	176
Loans held for sale (4)	155	5.42	2	363	4.96	5
Loans:						
Commercial:						
Commercial and industrial - U.S.	272,828	3.46	2,369	250,445	3.25	2,048
Commercial and industrial - Non U.S.	54,410	2.58	352	47,972	1.97	239
Real estate mortgage	131,195	3.44	1,135	121,844	3.30	1,012
Real estate construction	23,850	3.61	216	21,993	3.27	182
Lease financing	18,904	5.78	273	12,241	4.48	136
Total commercial	501,187	3.45	4,345	454,495	3.16	3,617
Consumer:						
Real estate 1-4 family first mortgage	277,732	4.01	2,785	272,871	4.04	2,759
Real estate 1-4 family junior lien mortgage	47,203	4.42	524	53,788	4.28	579
Credit card	35,383	11.73	1,043	32,795	11.61	960
Automobile	62,521	5.54	870	59,505	5.74	862
Other revolving credit and installment	40,121	5.91	595	38,826	5.83	571
Total consumer	462,960	5.01	5,817	457,785	4.99	5,731
Total loans (4)	964,147	4.20	10,162	912,280	4.08	9,348
Other	6,729	3.27	56	5,166	4.82	61
Total earning assets	$ 1,770,374	3.24%	$ 14,390	1,620,696	3.18%	$ 12,958
Funding sources						
Deposits:						
Interest-bearing checking	$ 46,907	0.17%	$ 19	39,082	0.05%	$ 5
Market rate and other savings	676,365	0.07	122	640,503	0.06	93
Savings certificates	24,362	0.30	18	29,654	0.54	41
Other time deposits	49,170	1.16	144	49,806	0.52	64
Deposits in foreign offices	110,425	0.35	97	107,094	0.14	38
Total interest-bearing deposits	907,229	0.18	400	866,139	0.11	241
Short-term borrowings	124,698	0.33	102	102,915	0.05	12
Long-term debt	252,162	1.68	1,061	190,861	1.49	713
Other liabilities	17,210	2.15	94	16,453	2.14	88
Total interest-bearing liabilities	1,301,299	0.51	1,657	1,176,368	0.36	1,054
Portion of noninterest-bearing funding sources	469,075	—	—	444,328	—	—
Total funding sources	$ 1,770,374	0.37	1,657	1,620,696	0.26	1,054
Net interest margin and net interest income on a taxable-equivalent basis (5)		2.87%	$ 12,733		2.92%	$ 11,904
Noninterest-earning assets						
Cash and due from banks	$ 18,967			17,804		
Goodwill	26,713			25,580		
Other	128,196			123,207		
Total noninterest-earning assets	$ 173,876			166,591		
Noninterest-bearing funding sources						
Deposits	$ 376,929			350,670		
Other liabilities	64,775			65,224		
Total equity	201,247			195,025		
Noninterest-bearing funding sources used to fund earning assets	(469,075)			(444,328)		
Net noninterest-bearing funding sources	$ 173,876			166,591		
Total assets	$ 1,944,250			1,787,287		

(1) Our average prime rate was 3.54% and 3.29% for the quarters ended December 31, 2016 and 2015, respectively. The average three-month London Interbank Offered Rate (LIBOR) was 0.92% and 0.41% for the same quarters, respectively.
(2) Yield/rates and amounts include the effects of hedge and risk management activities associated with the respective asset and liability categories.
(3) Yields and rates are based on interest income/expense amounts for the period, annualized based on the accrual basis for the respective accounts. The average balance amounts represent amortized cost for the periods presented.
(4) Nonaccrual loans and related income are included in their respective loan categories.
(5) Includes taxable-equivalent adjustments of $331 million and $316 million for the quarters ended December 31, 2016 and 2015, respectively, predominantly related to tax-exempt income on certain loans and securities. The federal statutory tax rate was 35% for the periods presented.

Glossary of Acronyms

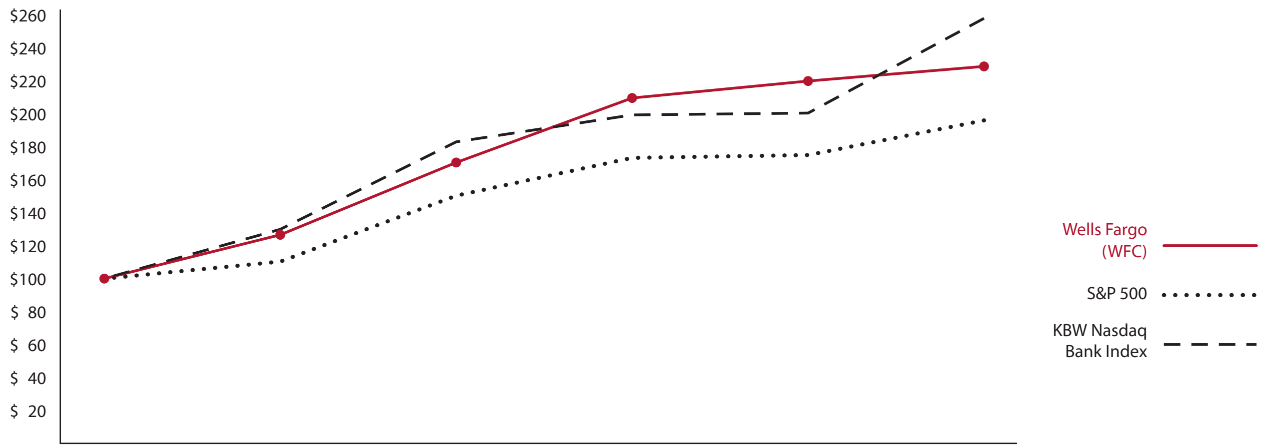
ABS	Asset-backed security
ACL	Allowance for credit losses
ALCO	Asset/Liability Management Committee
ARM	Adjustable-rate mortgage
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
AUA	Assets under administration
AUM	Assets under management
AVM	Automated valuation model
BCBS	Basel Committee on Bank Supervision
BHC	Bank holding company
CCAR	Comprehensive Capital Analysis and Review
CD	Certificate of deposit
CDO	Collateralized debt obligation
CDS	Credit default swaps
CET1	Common Equity Tier 1
CFPB	Consumer Financial Protection Bureau
CLO	Collateralized loan obligation
CLTV	Combined loan-to-value
CMBS	Commercial mortgage-backed securities
CPP	Capital Purchase Program
CRE	Commercial real estate
DPD	Days past due
ESOP	Employee Stock Ownership Plan
FAS	Statement of Financial Accounting Standards
FASB	Financial Accounting Standards Board
FDIC	Federal Deposit Insurance Corporation
FFELP	Federal Family Education Loan Program
FHA	Federal Housing Administration
FHLB	Federal Home Loan Bank
FHLMC	Federal Home Loan Mortgage Corporation
FICO	Fair Isaac Corporation (credit rating)
FNMA	Federal National Mortgage Association
FRB	Board of Governors of the Federal Reserve System
GAAP	Generally accepted accounting principles
GNMA	Government National Mortgage Association
GSE	Government-sponsored entity
G-SIB	Globally systemic important bank
HAMP	Home Affordability Modification Program
HUD	U.S. Department of Housing and Urban Development
LCR	Liquidity coverage ratio
LHFS	Loans held for sale
LIBOR	London Interbank Offered Rate
LIHTC	Low income housing tax credit
LOCOM	Lower of cost or market value
LTV	Loan-to-value
MBS	Mortgage-backed security
MHA	Making Home Affordable programs
MHFS	Mortgages held for sale
MSR	Mortgage servicing right
MTN	Medium-term note
NAV	Net asset value
NPA	Nonperforming asset
OCC	Office of the Comptroller of the Currency
OCI	Other comprehensive income
OTC	Over-the-counter
OTTI	Other-than-temporary impairment
PCI Loans	Purchased credit-impaired loans
PTPP	Pre-tax pre-provision profit
RBC	Risk-based capital
RMBS	Residential mortgage-backed securities
ROA	Wells Fargo net income to average total assets
ROE	Wells Fargo net income applicable to common stock to average Wells Fargo common stockholders' equity
ROTCE	Return on average tangible common equity
RWAs	Risk-weighted assets
SEC	Securities and Exchange Commission
S&P	Standard & Poor's Ratings Services
SLR	Supplementary leverage ratio
SPE	Special purpose entity
TARP	Troubled Asset Relief Program
TDR	Troubled debt restructuring
TLAC	Total Loss Absorbing Capacity
VA	Department of Veterans Affairs
VaR	Value-at-Risk
VIE	Variable interest entity

Stock Performance

These graphs compare the cumulative total stockholder return and total compound annual growth rate (CAGR) for our common stock (NYSE: WFC) for the five- and ten-year periods that ended December 31, 2016, with the cumulative total stockholder returns for the same periods for the Keefe, Bruyette and Woods (KBW) Total Return Bank Index (KBW Nasdaq Bank Index (BKX)) and the S&P 500 Index.

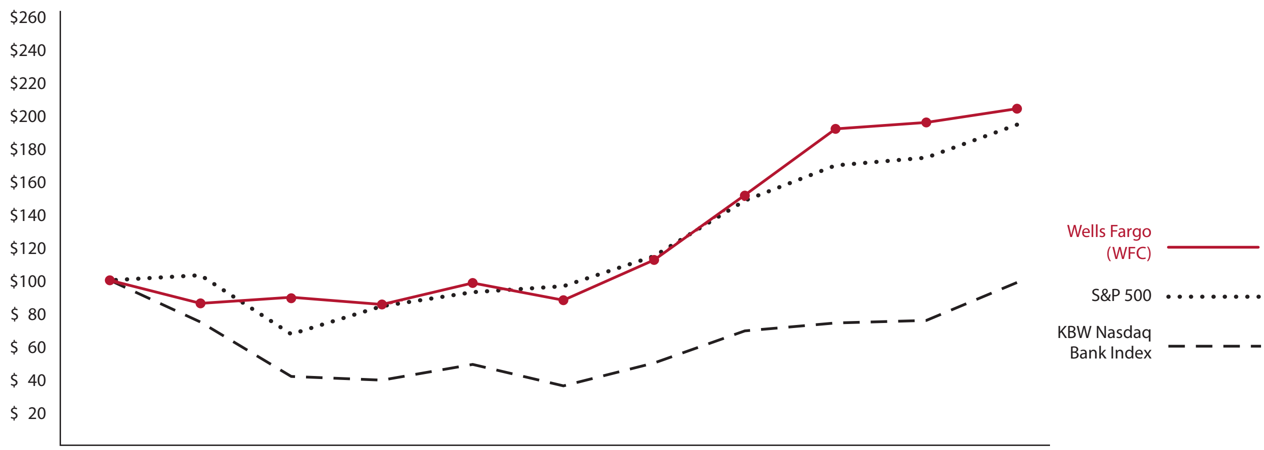
The cumulative total stockholder returns (including reinvested dividends) in the graphs assume the investment of $100 in Wells Fargo's common stock, the KBW Nasdaq Bank Index, and the S&P 500 Index.

Five Year Performance Graph



2011	2012	2013	2014	2015	2016	5-year CAGR	
$100	**$127**	**$174**	**$216**	**$220**	**$230**	**18%**	**Wells Fargo**
100	116	154	175	177	198	15%	S&P 500
100	133	183	200	201	259	21%	KBW Nasdaq Bank Index

Ten Year Performance Graph



2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	10-year CAGR	
$100	**$88**	**$90**	**$85**	**$99**	**$89**	**$114**	**$156**	**$193**	**$197**	**$205**	**7%**	**Wells Fargo**
100	105	66	84	97	99	115	152	172	175	196	7%	S&P 500
100	78	41	40	50	38	51	70	76	77	99	-%	KBW Nasdaq Bank Index

Wells Fargo & Company

Wells Fargo & Company (NYSE: WFC) is a diversified, community-based financial services company with $1.9 trillion in assets. Founded in 1852 and headquartered in San Francisco, Wells Fargo provides banking, insurance, investments, mortgage, and consumer and commercial finance through more than 8,600 locations, 13,000 ATMs, the internet (wellsfargo.com), and mobile banking, and has offices in 42 countries and territories to support customers who conduct business in the global economy. With approximately 269,000 team members, Wells Fargo serves one in three households in the United States. Wells Fargo & Company was ranked No. 27 on *Fortune's* 2016 rankings of America's largest corporations. Wells Fargo's vision is to satisfy our customers' financial needs and help them succeed financially. News, insights, and perspectives from Wells Fargo are also available at Wells Fargo Stories.

Common stock

Wells Fargo & Company is listed and trades on the New York Stock Exchange: WFC

5,016,109,326 common shares outstanding (12/31/16)

Stock purchase and dividend reinvestment

You can buy Wells Fargo stock directly from Wells Fargo, even if you're not a Wells Fargo stockholder, through optional cash payments or automatic monthly deductions from a bank account. You can also have your dividends reinvested automatically. It's a convenient, economical way to increase your Wells Fargo investment.

Call 1-877-840-0492 for an enrollment kit, which includes a plan prospectus.

Form 10-K

We will send Wells Fargo's 2016 Annual Report on Form 10-K (including the financial statements filed with the Securities and Exchange Commission) free to any stockholder who asks for a copy in writing. Stockholders also can ask for copies of any exhibit to the Form 10-K. We will charge a fee to cover expenses to prepare and send any exhibits. Please send requests to: Corporate Secretary, Wells Fargo & Company, One Wells Fargo Center, MAC D1053-300, 301 S. College Street, 30th Floor, Charlotte, North Carolina 28202.

SEC filings

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports are available free of charge on our website (www.wellsfargo.com) as soon as practical after they are electronically filed with or furnished to the SEC. Those reports and amendments are also available free of charge on the SEC's website at www.sec.gov.

Forward-looking statements

This Annual Report contains forward-looking statements about our future financial performance and business. Because forward-looking statements are based on our current expectations and assumptions regarding the future, they are subject to inherent risks and uncertainties. Do not unduly rely on forward-looking statements, as actual results could differ materially from expectations. Forward-looking statements speak only as of the date made, and we do not undertake to update them to reflect changes or events that occur after that date. For information about factors that could cause actual results to differ materially from our expectations, refer to the discussion under "Forward-Looking Statements" and "Risk Factors" in the Financial Review portion of this Annual Report.

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www.shareowneronline.com

Annual Stockholders' Meeting
10:00 a.m. Eastern Time
Tuesday, April 25, 2017
Sawgrass Marriott
1000 PGA Tour Boulevard
Ponte Vedra, Florida 32082

Strong for our customers and communities

Company

3rd
Total Deposits (2016)
FDIC data

3rd
Total Assets (2016)
SNL Financial

7th
Biggest Public Company in the World* (2016) *Forbes*

27th
Biggest Company by Revenue in the U.S. (2016) *Fortune*

Best Bank and Best Trade Finance Bank in North America, Best Bank in the U.S.
(2016) *Global Finance* magazine

Best Bank for Payments and Collections in North America
(2010–2016) *Global Finance* magazine

Best Trade Finance Bank in the U.S.
(2014-2016) *Global Finance* magazine

Innovation leadership

North America Best in Mobile Banking, Best Investment Management Services, Best Trade Finance Services, Best Website Design, Best Integrated Corporate Banking Site, Best Information Security Initiatives, Best in Social Media (World's Best Corporate/Institutional Digital Banks in North America, 2016) *Global Finance* magazine

#1 in Overall Mobile Performance, Ease of Use, Functionality, and Best App & Mobile Web Experience
(3Q16) Keynote Competitive Research

Diversity

4th Top Company for LGBT (2016) *DiversityInc*

12th Top Company for Diversity (2016) *DiversityInc*

13th Best Company for Latinas (2016) *LATINA Style*

Best Board Diversity Initiative in NYSE Governance Services (2016)

Perfect Score – 100
Corporate Equality Index (2017, 14th year) Human Rights Campaign

Perfect Score – 100
Disability Equality Index (DEI) Best Places to Work (2016) Score of 100%

Corporate social responsibility

Largest workplace employee giving campaign in the U.S. for eighth consecutive year, based on 2016 donations
United Way Worldwide

#3
Most Generous Cash Donor (U.S.) (2016)
The Chronicle of Philanthropy

Points of Light Civic 50
Most "Community–Minded" Companies in the U.S. (2016)

Brand

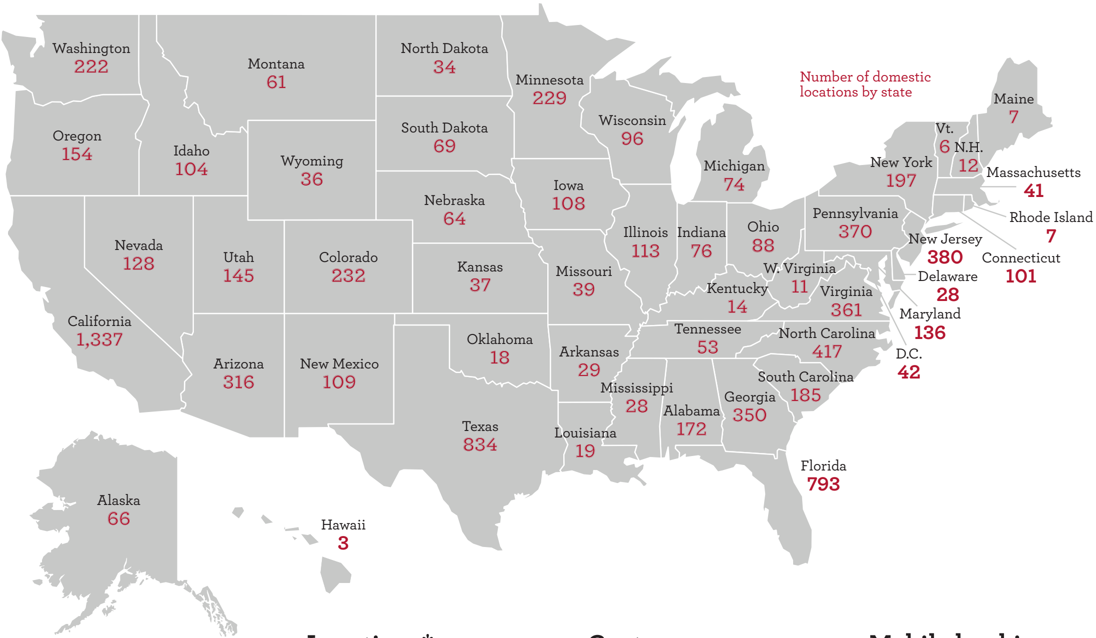
Most Valuable Banking Brand in North America and Retail Banking (2017)
Brand Finance®

**Based on sales, profits, assets, and market value.*

Wells Fargo's extensive network

Around the world

Argentina
Australia
Bahamas
Bangladesh
Belgium
Brazil
Canada
Cayman Islands
Chile
China
Colombia
Dominican Republic
Ecuador
Finland
France
Germany
Hong Kong
India
Indonesia
Ireland
Israel
Italy
Japan
Luxembourg
Malaysia
Mexico
Netherlands
New Zealand
Norway
Philippines
Singapore
South Africa
South Korea
Spain
Sweden
Taiwan
Thailand
Turkey
United Arab Emirates
United Kingdom
Vietnam



Locations*
8,600

ATMs
13,000

Customers
70+ million

wellsfargo.com
27.4 million digital (online and mobile) active customers

Mobile banking
19.6 million mobile active users

**Number of domestic and global locations.*

In supporting homeowners and consumers

#1
Retail mortgage lender (3Q16) *Inside Mortgage Finance*

#1
Home loan originator to minority borrowers, and in low- to moderate-income neighborhoods (2015) HMDA data

#1
Home loan servicer (3Q16) *Inside Mortgage Finance*

#1
Used auto lender (2016, AutoCount)

#1
Overall auto lender (2016, excluding leases, AutoCount)

#1
Provider of private student loans among banks (2016) Company and competitor reports

In helping small businesses

#1
Small business lender (U.S., in dollars, loans under $1 million, 2015) Community Reinvestment Act government data

#1
SBA 7(a) lender in dollars and units (2016) Small Business Administration federal fiscal year-end data

In middle market banking

#1
Total middle market banking share in the U.S. and the most primary banking relationships with middle market companies with $25 million to $500 million in annual sales (4Q 2014 to 3Q 2016 – Barlow Research Middle Market Rolling 8 Quarter Data)

In treasury management

Monarch Innovation Awards, Most Innovative Feature: Wells Fargo's CEO Mobile® biometric authentication (2016) Barlow Research Associates

In commercial real estate

Largest master servicer of commercial loans (2016) Commercial Mortgage Alert

Largest investor in low-income housing tax credits (2016) Cohn Reznick

#1
U.S. Bank Lender of the Year (2014 – 2016) Real Estate Capital Awards

In wealth and investment management

#1
U.S. annuity sales (2015) Transamerica Roundtable Survey

#3
U.S. full-service retail brokerage provider (4Q16) Company and competitor reports

#4
U.S. wealth management provider (2016) *Barron's*

#6
U.S. IRA provider (2Q16) Cerulli Associates

#7
U.S. family office provider (2016) Bloomberg

#8
U.S. institutional retirement plan record keeper, based on assets as of 12/31/15 (2016) *PLANSPONSOR* magazine

Wells Fargo & Company
420 Montgomery Street
San Francisco, California 94104
1-866-878-5865 wellsfargo.com

Our Vision:
We want to satisfy our customers' financial needs and help them succeed financially.

Nuestra Visión:
Queremos satisfacer las necesidades financieras de nuestros clientes y ayudarles a alcanzar el éxito financiero.

我們的願景：
我們希望滿足客戶的理財需求，並協助他們取得財務上的成功。

Notre Vision:
Satisfaire les besoins financiers de nos clients et les aider à réussir financièrement.

Together we'll go far

CCM4203 (Rev 00, 1/each)