FEDERAL NATIONAL MORTGAGE ASSOCIATION FANNIE MAE
Form 10-K
February 17, 2017

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
Form 10-K
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2016
Commission File No.: 0-50231
Federal National Mortgage Association
(Exact name of registrant as specified in its charter)
Fannie Mae

Federally chartered corporation	52-0883107
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
3900 Wisconsin Avenue, NW Washington, DC (Address of principal executive offices)	20016 (zip code)

Registrant’s telephone number, including area code:
(800) 2FANNIE (800-232-6643)
Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
None	

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, without par value
(Title of class)
8.25% Non-Cumulative Preferred Stock, Series T, stated value $25 per share
(Title of class)
8.75% Non-Cumulative Mandatory Convertible Preferred Stock, Series 2008-1, stated value $50 per share
(Title of class)
Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series S, stated value $25 per share
(Title of class)
7.625% Non-Cumulative Preferred Stock, Series R, stated value $25 per share
(Title of class)
6.75% Non-Cumulative Preferred Stock, Series Q, stated value $25 per share
(Title of class)
Variable Rate Non-Cumulative Preferred Stock, Series P, stated value $25 per share
(Title of class)
Variable Rate Non-Cumulative Preferred Stock, Series O, stated value $50 per share
(Title of class)
5.375% Non-Cumulative Convertible Series 2004-1 Preferred Stock, stated value $100,000 per share
(Title of class)
5.50% Non-Cumulative Preferred Stock, Series N, stated value $50 per share
(Title of class)
4.75% Non-Cumulative Preferred Stock, Series M, stated value $50 per share
(Title of class)
5.125% Non-Cumulative Preferred Stock, Series L, stated value $50 per share
(Title of class)
5.375% Non-Cumulative Preferred Stock, Series I, stated value $50 per share

(Title of class)
5.81% Non-Cumulative Preferred Stock, Series H, stated value $50 per share
(Title of class)
Variable Rate Non-Cumulative Preferred Stock, Series G, stated value $50 per share
(Title of class)
Variable Rate Non-Cumulative Preferred Stock, Series F, stated value $50 per share
(Title of class)
5.10% Non-Cumulative Preferred Stock, Series E, stated value $50 per share
(Title of class)
5.25% Non-Cumulative Preferred Stock, Series D, stated value $50 per share
(Title of class)
Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No þ
Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ¨ No þ
Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No ¨
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. þ
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No þ
The aggregate market value of the common stock held by non-affiliates of the registrant computed by reference to the last reported sale price of the common stock quoted on the OTC Bulletin Board on June 30, 2016 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately $2.3 billion.
As of January 31, 2017, there were 1,158,082,750 shares of common stock of the registrant outstanding.

TABLE OF CONTENTS

TABLE REFERENCE

PART I

We have been under conservatorship, with the Federal Housing Finance Agency ("FHFA") acting as conservator, since September 6, 2008. As conservator, FHFA succeeded to all rights, titles, powers and privileges of the company, and of any shareholder, officer or director of the company with respect to the company and its assets. The conservator has since delegated specified authorities to our Board of Directors and has delegated to management the authority to conduct our day-to-day operations. Our directors do not have any fiduciary duties to any person or entity except to the conservator and, accordingly, are not obligated to consider the interests of the company, the holders of our equity or debt securities or the holders of Fannie Mae MBS unless specifically directed to do so by the conservator. We describe the rights and powers of the conservator, key provisions of our agreements with the U.S. Department of the Treasury ("Treasury"), and their impact on shareholders in "Business—Conservatorship and Treasury Agreements."

This report contains forward-looking statements that are based on management's current expectations and are subject to significant uncertainties and changes in circumstances. Please review "Business—Forward-Looking Statements" for more information on the forward-looking statements in this report. Our actual results may differ materially from those reflected in our forward-looking statements due to a variety of factors including, but not limited to, those discussed in "Risk Factors" and elsewhere in this report.

You can find a "Glossary of Terms Used in This Report" in "Management's Discussion and Analysis of Financial Condition and Results of Operations ('MD&A')."

Item 1. Business

Introduction

Fannie Mae is a government-sponsored enterprise ("GSE") chartered by Congress. We serve as a stable source of liquidity for purchases of homes and financing of multifamily rental housing, as well as for refinancing existing mortgages. Our role in the market enables qualified borrowers to have reliable access to affordable mortgage credit, including a variety of conforming mortgage products such as the prepayable 30-year fixed-rate mortgage that protects homeowners from fluctuations in interest rates.

We operate in the secondary mortgage market. We support the liquidity and stability of the U.S. mortgage market primarily by securitizing mortgage loans originated by lenders into Fannie Mae mortgage-backed securities that we guarantee, which we refer to as Fannie Mae MBS. We also purchase mortgage loans and mortgage-related securities, primarily for securitization and sale at a later date. We use the term "acquire" in this report to refer to both our securitizations and our purchases of mortgage-related assets. We do not originate loans or lend money directly to consumers in the primary mortgage market.

We remain in conservatorship and our conservatorship has no specified termination date. We do not know when or how the conservatorship will terminate, what further changes to our business will be made during or following conservatorship, what form we will have and what ownership interest, if any, our current common and preferred stockholders will hold in us after the conservatorship is terminated or whether we will continue to exist following conservatorship. In addition, as a result of our agreements with Treasury and directives from our conservator, we are not permitted to retain our net worth (other than a limited amount that will decrease to zero in 2018), rebuild our capital position or pay dividends or other distributions to stockholders other than Treasury. Our senior preferred stock purchase agreement with Treasury also includes covenants that significantly restrict our business activities. Congress continues to consider options for reform of the housing finance system, including the GSEs. We cannot predict the prospects for the enactment, timing or final content of housing finance reform legislation or actions the Administration or FHFA may take with respect to housing finance reform. We provide additional information on the uncertainty of our future, the conservatorship, the provisions of our agreements with Treasury, and their impact on our business in "Conservatorship and Treasury Agreements" and "Risk Factors." We describe recent actions and statements relating to housing finance reform by the Administration, Congress and FHFA in “Legislation and Regulation—Housing Finance Reform.”

Although Treasury owns our senior preferred stock and a warrant to purchase 79.9% of our common stock, and has made a commitment under a senior preferred stock purchase agreement to provide us with funds to maintain a positive net worth under specified conditions, the U.S. government does not guarantee our securities or other obligations.

Our common stock is traded in the over-the-counter market and quoted on the OTC Bulletin Board under the symbol "FNMA." Our debt securities are actively traded in the over-the-counter market.

Executive Summary

Please read this Executive Summary together with our MD&A and our consolidated financial statements as of December 31, 2016 and related notes to the consolidated financial statements.

Summary of Our Financial Performance

We recognized comprehensive income of $11.7 billion in 2016, consisting of net income of $12.3 billion, partially offset by other comprehensive loss of $648 million. In comparison, we recognized comprehensive income of $10.6 billion in 2015, consisting of net income of $11.0 billion, partially offset by other comprehensive loss of $326 million. The increase in our net income in 2016 was primarily driven by a shift from credit-related expense in 2015 to credit-related income in 2016 and lower fair value losses, partially offset by lower net revenues.

The table below highlights our key financial performance data and results for 2016 and 2015. See "MD&A—Consolidated Results of Operations" for more information on our financial results.

Key Performance Data and Results

2016 vs. 2015	2015 vs. 2014
Comprehensive income of $11.7 billion in 2016 increased 10% from 2015.	Comprehensive income of $10.6 billion in 2015 decreased 28% from 2014.
Net income of $12.3 billion in 2016 increased 12% from 2015.	Net income of $11.0 billion in 2015 decreased 23% from 2014.
Net revenues, which consist of net interest income and fee and other income, of $22.3 billion in 2016 decreased 2% from 2015. Net interest income of $21.3 billion in 2016 was primarily derived from guaranty fees from our guaranty book of business and remained relatively flat compared with 2015.	Net revenues of $22.8 billion in 2015 decreased 12% from 2014, driven by a decrease in fee and other income partially offset by an increase in net interest income.
We recognized credit-related income of $1.5 billion in 2016, a shift from credit-related expense of $834 million in 2015. Credit-related income in 2016 was driven by a benefit for credit losses primarily resulting from an increase in home prices.	We recognized credit-related expense of $834 million in 2015, a shift from credit-related income of $3.8 billion in 2014. Credit related expense in 2015 was driven by foreclosed property expense on our single-family foreclosed properties.
Net fair value losses of $1.1 billion in 2016 decreased 39% from 2015. We recognized fair value losses for 2016 primarily as a result of a decrease in the fair value of our risk management derivatives in the first half of 2016 due to declines in longer-term swap rates during the period. These losses were partially offset by an increase in the fair value of our risk management derivatives in the second half of 2016 due to an increase in longer-term swap rates during the period.	Net fair value losses of $1.8 billion in 2015 decreased 63% from 2014. We recognized fair value losses in 2015 primarily as a result of decreases in the fair value of our risk management derivatives due to declines in longer-term swap rates during the year.
Our retained mortgage portfolio declined by 21% to $272.4 billion as of December 31, 2016.	Our retained mortgage portfolio declined by 17% to $345.1 billion as of December 31, 2015.
Our single-family guaranty book of business was $2.8 trillion as of December 31, 2016.	Our single-family guaranty book of business was $2.8 trillion as of December 31, 2015.

Our net worth increased to $6.1 billion as of December 31, 2016.	Our net worth increased to $4.1 billion as of December 31, 2015.
The capital reserve amount applicable to our dividend payment for the first quarter of 2017 based on our net worth as of December 31, 2016 is $600 million. The capital reserve amount applicable to our dividends paid in 2016 was $1.2 billion.	The capital reserve amount applicable to our dividend payment for the first quarter of 2016 based on our net worth as of December 31, 2015 was $1.2 billion. The capital reserve amount applicable to our dividends paid in 2015 was $1.8 billion.
We paid $9.6 billion in dividends to Treasury in 2016.	We paid $10.3 billion in dividends to Treasury in 2015.

We expect volatility from period to period in our financial results from a number of factors, particularly changes in market conditions that result in fluctuations in the estimated fair value of the financial instruments that we mark to market through our earnings. These instruments include derivatives and certain securities. The estimated fair value of our derivatives and securities may fluctuate substantially from period to period because of changes in interest rates, the yield curve, mortgage and credit spreads, and implied volatility, as well as activity related to these financial instruments. We use derivatives to manage the interest rate risk exposure of our net portfolio, which consists of our retained mortgage portfolio, cash and other investments portfolio, and outstanding debt of Fannie Mae. Some of these financial instruments in our net portfolio are not recorded at fair value in our consolidated financial statements, and as a result we may experience accounting gains or losses due to changes in interest rates or other market conditions that may not be indicative of the economic interest rate risk exposure of our net portfolio. See "MD&A—Risk Management—Market Risk Management, Including Interest Rate Risk Management" for more information. In addition, our credit-related income or expense can vary substantially from period to period based on a number of factors such as changes in actual and expected home prices, fluctuations in interest rates, borrower payment behavior, the types and volume of our loss mitigation activities, the volume of foreclosures completed, and redesignations of loans from held for investment ("HFI") to held for sale ("HFS").

Our Strategy and Business Objectives

Our vision is to be America's most valued housing partner and to provide liquidity, access to credit and affordability in all U.S. housing markets at all times, while effectively managing and reducing risk to our business, taxpayers and the housing finance system. In support of this vision, we are focused on:

- advancing a sustainable and reliable business model that reduces risk to the housing finance system and taxpayers;
- providing reliable, large-scale access to affordable mortgage credit for qualified borrowers and helping struggling homeowners; and
- serving customer needs by building a company that is efficient, innovative and continuously improving.

Advancing a sustainable and reliable business model that reduces risk to the housing finance system and taxpayers

We have significantly changed our business model since we entered conservatorship in 2008 and our business continues to evolve. We have strengthened our underwriting and eligibility standards and transitioned from a portfolio-focused business to a guaranty-focused business. In addition, we are transferring an increasing portion of the credit risk on our guaranty book of business. These changes have transformed our business model and reduced certain risks of our business as compared with our business prior to entering conservatorship.

Our business also continues to evolve as a result of our many other efforts to build a safer and sustainable housing finance system and to pursue the strategic goals identified by our conservator. See "Legislation and Regulation—Housing Finance Reform—Conservator Developments and Strategic Goals" for a discussion of some of these efforts and FHFA's strategic goals for our conservatorship.

Stronger underwriting and eligibility standards

We strengthened our underwriting and eligibility standards for loans we acquired beginning in late 2008 and 2009. These changes have improved the credit quality of our single-family guaranty book of business and contributed to improvement in our credit performance. As of December 31, 2016, 88% of our single-family conventional guaranty book of business consisted of loans acquired since 2009. Our single-family serious delinquency rate has decreased each quarter since the first quarter of 2010.

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(1) Calculated as of the end of each period based on the number of single-family conventional loans that are 90 days or more past due and loans that have been referred to foreclosure but not yet foreclosed upon, divided by the number of loans in our single-family conventional guaranty book of business.

(2) We have acquired HARP loans and other Refi Plus loans under our Refi Plus™ initiative since 2009. Our Refi Plus initiative offers refinancing flexibility to eligible borrowers who are current on their loans and whose loans are owned or guaranteed by us and meet certain additional criteria. HARP loans, which have loan-to-value ("LTV") ratios at origination greater than 80%, refers to loans we have acquired pursuant to the Home Affordable Refinance Program® ("HARP®"). Other Refi Plus loans, which have LTV ratios at origination of 80% or less, refers to loans we have acquired under our Refi Plus initiative other than HARP loans. Loans we acquire under Refi Plus and HARP are refinancings of loans that were originated prior to June 2009.

See "MD&A—Business Segments—Single-Family Business" for information on our recent single-family acquisitions and the credit performance of our single-family mortgage loans.

Transition to a guaranty-focused business

We have two primary sources of revenues: (1) the guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties; and (2) the difference between interest income earned on the assets in our retained mortgage portfolio and the interest expense associated with the debt that funds those assets. Our retained mortgage portfolio refers to the mortgage-related assets we own (which excludes the portion of assets held by consolidated MBS trusts that back mortgage-related securities owned by third parties).

As shown in the chart below, in recent years, an increasing portion of our net interest income has been derived from guaranty fees, rather than from our retained mortgage portfolio assets. This shift has been driven by both the guaranty fee increases we implemented in 2012 and the reduction of our retained mortgage portfolio in accordance with the requirements of our senior preferred stock purchase agreement with Treasury and direction from FHFA. More than two-thirds of our 2016 net interest income was derived from the loans underlying our Fannie Mae MBS in consolidated trusts, which primarily generate income through guaranty fees. We expect that guaranty fees will continue to account for an increasing portion of our net interest income.

Transferring a portion of the mortgage credit risk on our single-family book of business

In late 2013, we began entering into credit risk transfer transactions with the goal of transferring, to the extent economically sensible, a portion of the mortgage credit risk on some of the recently-acquired loans in our single-family book of business in order to reduce the economic risk to us and to taxpayers of future borrower defaults. Our primary method of achieving this objective has been through our Connecticut Avenue Securities™ ("CAS") and Credit Insurance Risk Transfer™ ("CIRT™") transactions. In these transactions, we transfer to investors a portion of the mortgage credit risk associated with losses on a reference pool of mortgage loans and in exchange we pay investors a premium that effectively reduces the guaranty fee income we retain on the loans. As of December 31, 2016, $647.5 billion in outstanding unpaid principal balance of our single-family loans, or approximately 23% of the loans in our single-family conventional guaranty book of business measured by unpaid principal balance, were included in a reference pool for a credit risk transfer transaction. Over time, we expect that a larger portion of our single-family conventional guaranty book of business will be covered by credit risk transfer transactions.

The chart below shows as of the dates specified the total outstanding unpaid principal balance of our single-family loans, as well as the percentage of our total single-family conventional guaranty book of business measured by unpaid principal balance, that were included in a reference pool for a credit risk transfer transaction.

For further discussion of our credit risk transfer transactions, including information on the portion of the credit risk of these loans we have transferred, see "MD&A—Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions."

Providing reliable, large-scale access to affordable mortgage credit for qualified borrowers and helping struggling homeowners

We continued to provide reliable, large-scale access to affordable mortgage credit to the U.S. housing market and to help struggling homeowners in 2016:

- We provided approximately $637 billion in liquidity to the mortgage market in 2016 through our purchases of loans and guarantees of loans and securities. This liquidity enabled borrowers to complete approximately 1,401,000 mortgage refinancings and approximately 1,122,000 home purchases, and provided financing for approximately 724,000 units of multifamily housing.
- We provided approximately 103,500 loan workouts in 2016 to help homeowners stay in their homes or otherwise avoid foreclosure. Our loan workout efforts have helped to stabilize neighborhoods, home prices and the housing market.
- We helped borrowers refinance loans, including through our Refi Plus™ initiative, which offers refinancing flexibility to eligible borrowers who are current on their loans, whose loans are owned or guaranteed by us and who meet certain additional criteria. We acquired approximately 141,000 Refi Plus loans in 2016. Refinancings delivered to us through Refi Plus in the fourth quarter of 2016 reduced borrowers' monthly mortgage payments by an average of $221.
- We support affordability in the multifamily rental market. Approximately 90% of the multifamily units we financed in 2016 were affordable to families earning at or below 120% of the median income in their area, providing support for both workforce housing and affordable housing.

Serving customer needs by building a company that is efficient, innovative and continuously improving

We are committed to providing our lender customers with the products, services and tools they need to serve the housing market more effectively and efficiently, as well as continuing to improve our business processes. We have implemented a number of changes in recent years designed to help our customers originate mortgages with increased certainty, efficiency and lower costs, such as the following:

- Introduced Innovative Tools. We have introduced a number of new, innovative tools that lenders can use to ensure the quality of the loans they deliver to us, such as our EarlyCheck™ loan verification tool and our Collateral Underwriter® appraisal review tool, which we make available to lenders at no cost.

- Launched New Loan Delivery Platform. We launched a new loan delivery platform to help lenders deliver loans more efficiently and with greater transparency and certainty.
- Eliminated Technology Fees. We eliminated fees charged to customers for using our Desktop Underwriter® and Desktop Originator® underwriting systems.
- Reduced Repurchase Risk. We have significantly reduced lenders' repurchase risk relating to loans they deliver to us by implementing a revised representation and warranty framework and other enhancements that clarify and limit lenders' repurchase liability. As of December 31, 2016, over 3 million loans in our book of business had obtained relief from repurchases for breaches of certain representations and warranties pursuant to this revised framework, and over 5 million loans remained eligible for relief in the future.

We continue to focus on improvements to our business processes and policies to better serve our customers and to promote stronger risk management and greater digitization of data and processes in the mortgage industry. In addition to providing value to our customers, we believe many of these improvements will increase access to mortgage credit by encouraging lenders to safely expand their lending to a wider range of qualified borrowers. New enhancements and innovations that we implemented in recent months or are currently working on include the following:

- Trended Credit Data. We incorporated trended credit data into our Desktop Underwriter automated underwriting system in September 2016. Trended credit data refers to additional historical information on a borrower's use of revolving credit accounts, including the balance, scheduled payments and actual payments made on these accounts. Incorporating trended credit data is expected to improve Desktop Underwriter's credit risk assessment and benefit borrowers who regularly pay down their revolving debt.
- Day 1 Certainty. We introduced our new Day 1 Certainty™ initiative in October 2016. As part of Day 1 Certainty, we began offering third-party validation of borrower income, asset and employment data through Desktop Underwriter in the fourth quarter of 2016. We also leveraged these new verification tools to expand the representation and warranty relief we provide to lenders. In the fourth quarter of 2016, we began providing lenders with additional representation and warranty relief with respect to borrower income, asset and employment data that has been validated through Desktop Underwriter and with respect to property value where the appraisal has received a qualifying risk score in our Collateral Underwriter appraisal review tool. See "MD&A—Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Acquisition and Servicing Policies and Underwriting and Servicing Standards—Representation and Warranty Relief" for further discussion of the actions we have taken to reduce and clarify lenders' repurchase risk.
- eMortgages. We are investing in technology and resources to support the ability of lenders to deliver eMortgages to us. An eMortgage is an electronic mortgage submission where the loan documentation is created, executed, transferred and stored electronically. In 2016, we partnered with lenders, servicers and technology solution providers to implement eMortgage solutions and promote more entrants to the eMortgage marketplace. We plan to transition to a streamlined, less complex eNote format—MISMO SMART Doc® Version 3.0—to align the eNote format with Uniform Closing Dataset standards. We will continue to conduct educational outreach to industry and market stakeholders in 2017 to further drive eMortgage awareness and adoption.

Treasury Draws and Dividend Payments

Treasury has made a commitment under a senior preferred stock purchase agreement to provide funding to us under certain circumstances if we have a net worth deficit. Pursuant to this agreement and the senior preferred stock we issued to Treasury in 2008, the Director of FHFA has directed us to pay dividends to Treasury on a quarterly basis since entering into conservatorship in 2008.

The chart below shows the funds we have drawn from Treasury pursuant to the senior preferred stock purchase agreement, as well as the dividend payments we have made to Treasury on the senior preferred stock, since entering into conservatorship.

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(1) Under the terms of the senior preferred stock purchase agreement, dividend payments we make to Treasury do not offset our prior draws of funds from Treasury, and we are not permitted to pay down draws we have made under the agreement except in limited circumstances. Accordingly, the current aggregate liquidation preference of the senior preferred stock is $117.1 billion, due to the initial $1.0 billion liquidation preference of the senior preferred stock (for which we did not receive cash proceeds) and the $116.1 billion we have drawn from Treasury. Amounts may not sum due to rounding.

(2) Treasury draws are shown in the period for which requested, not when the funds were received by us. We have not requested a draw for any period since 2012.

We expect to pay Treasury a dividend of $5.5 billion for the first quarter of 2017 by March 31, 2017, calculated based on our net worth of $6.1 billion as of December 31, 2016, less the current capital reserve amount of $600 million. We expect to retain only a limited amount of any future net worth because we are required by the dividend provisions of the senior preferred stock and quarterly directives from our conservator to pay Treasury each quarter any dividends declared consisting of the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds an applicable capital reserve amount. This capital reserve amount is $600 million for each quarter of 2017 and will decrease to zero in 2018. Those dividend payment provisions are referred to as "net worth sweep" dividend provisions.

If we experience a net worth deficit in a future quarter, we will be required to draw additional funds from Treasury under the senior preferred stock purchase agreement in order to avoid being placed into receivership. As of the date of this filing, the maximum amount of remaining funding under the agreement is $117.6 billion. If we were to draw additional funds from Treasury under the agreement in a future period, the amount of remaining funding under the agreement would be reduced by the amount of our draw. Dividend payments we make to Treasury do not restore or increase the amount of funding available to us under the agreement. For a description of the terms of the senior preferred stock purchase agreement and the senior preferred stock, see "Conservatorship and Treasury Agreements—Treasury Agreements." See "Risk Factors" for a discussion of the risks associated with our limited and declining capital reserves, and "Outlook" for our current expectations for our future financial results.

As described in “Legal Proceedings” and “Note 18, Commitments and Contingencies,” several lawsuits have been filed by preferred and common stockholders of Fannie Mae and Freddie Mac against one or more of the United States, Treasury and FHFA challenging actions taken by the defendants relating to the senior preferred stock purchase agreements and the conservatorships of Fannie Mae and Freddie Mac, including challenges to the net worth sweep dividend provisions of the senior preferred stock. We are also a party to some of those lawsuits. We cannot predict the course or the outcome of these lawsuits, or the actions the U.S. government (including Treasury or FHFA) may take in response to any ruling or finding in any of these lawsuits.

2016 Market Share

We estimate that our single-family acquisition market share was 29% in 2016 and 27% in 2015. These amounts represent our single-family mortgage acquisitions for each year, excluding delinquent loans we purchased from our MBS trusts, as a percentage of the single-family first-lien mortgages we currently estimate were originated in the United States that year. Our estimate of mortgage originations in prior periods is subject to change as additional data become available; therefore, these market share estimates may change in the future, perhaps materially.

We were the largest issuer of single-family mortgage-related securities in the secondary market in 2016, with an estimated market share of new single-family mortgage-related securities issuances of 39%, compared with 37% in 2015. We estimate our market share of new single-family mortgage-related securities issuances was 41% in the fourth quarter of 2016, compared with 38% in the third quarter of 2016 and 36% in the fourth quarter of 2015. The chart below shows our market share of single-family mortgage-related securities issuances in 2016 compared with that of our primary competitors.

We remained a continuous source of liquidity in the multifamily market in 2016. We owned or guaranteed approximately 19% of the outstanding debt on multifamily properties as of September 30, 2016 (the latest date for which information is available) and approximately 18% as of December 31, 2015.

Outlook

In this section, we present a number of estimates and expectations regarding our future performance, as well as future housing market conditions. These estimates and expectations are forward-looking statements based on our current assumptions regarding numerous factors. See “Forward-Looking Statements” and “Risk Factors” for a discussion of factors that could cause actual results to differ materially from our current estimates and expectations. Due to the large size of our guaranty book of business, even small changes in these factors could have a significant impact on our financial results for a particular period.

Financial Results. Our financial results continued to be strong in 2016, with net income of $12.3 billion. We expect to remain profitable on an annual basis for the foreseeable future; however, certain factors, such as changes in interest rates or home prices, could result in significant volatility in our financial results from quarter to quarter or year to year. Our future financial results also will be affected by a number of other factors, including: our guaranty fee rates; the volume of single-family mortgage originations in the future; the size, composition and quality of our retained mortgage portfolio and guaranty book of business; and economic and housing market conditions. Although we expect to remain profitable on an annual basis for the foreseeable future, due to our limited and declining capital reserves (which decrease to zero in 2018) and the potential for significant volatility in our financial results, we could experience a net worth deficit in a future quarter. If we experience a net worth deficit in a future quarter, we will be required to draw additional funds from Treasury under the senior preferred stock purchase agreement in order to avoid being placed into receivership.

Our expectations for our future financial results do not take into account the impact on our business of potential future legislative or regulatory changes, which could have a material impact on our financial results, particularly the enactment of housing finance reform legislation, corporate income tax reform legislation and changes in accounting standards. For example, the current Administration proposes reducing the U.S. corporate income tax rate. Under applicable accounting standards, a significant reduction in the U.S. corporate income tax rate would require that we record a substantial reduction in the value of our deferred tax assets in the quarter in which the legislation is enacted. Thus, if legislation significantly lowering the U.S. corporate income tax rate is enacted, we expect to incur a significant net loss and net worth deficit for the quarter in which the legislation is enacted and we could potentially incur a net loss for that year. As noted above, if we experience a net worth deficit in a future quarter, we will be required to draw additional funds from Treasury under the senior preferred stock purchase agreement in order to avoid being placed into receivership.

See "Risk Factors" for a discussion of the risks associated with our limited and declining capital reserves and the potential impact of legislative and regulatory actions.

Revenues. We have two primary sources of revenues: (1) the guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties; and (2) the difference between interest income earned on the assets in our retained mortgage portfolio and the interest expense associated with the debt that funds those assets.

Our guaranty fee revenues consist of two primary components: (1) the base guaranty fees that we receive over the life of the loan; and (2) upfront fees we receive at loan acquisition which are amortized over the contractual life of the loan. When mortgage loans prepay faster due to a lower interest rate environment, we typically have higher amortization income. Conversely, when mortgage loans prepay more slowly due to a higher interest rate environment, we typically have lower amortization income. Our guaranty fee revenues increased in 2015 and 2016 primarily driven by: (1) loans with higher base guaranty fees comprising a larger part of our guaranty book of business; and (2) an increase in amortization income as a lower interest rate environment during portions of these years increased prepayments on mortgage loans. We expect loans with lower guaranty fees to continue to liquidate from our book of business and be replaced with new loans that typically have higher guaranty fees, which will contribute to increasing guaranty fee revenues; however, the impact of this trend on our guaranty fee revenues could be offset by lower amortization income if interest rates remain at higher levels and result in lower prepayments on mortgage loans. Accordingly, our guaranty fee revenues may remain relatively flat in the near term.

We expect the size of our retained mortgage portfolio to continue to decrease, which will continue to negatively impact our net interest income and net revenues.

Factors that may affect our future revenues include: changes to guaranty fee pricing we may make in the future and their impact on our competitive environment and guaranty fee revenues; economic and housing market conditions, including changes in interest rates and home prices; the size, composition and quality of our guaranty book of business; the life of the loans in our guaranty book of business; the size, composition and quality of our retained mortgage portfolio; our market share; and legislative and regulatory changes.

Overall Market Conditions. While we expect the single-family serious delinquency rate for the overall mortgage market will continue to decline, we believe the rate of decline will be gradual. We expect the national single-family serious delinquency rate will remain high compared with pre-housing crisis levels because it will take some time for the remaining delinquent loans originated prior to 2009 to work their way through the foreclosure process.

We forecast that total originations in the U.S. single-family mortgage market in 2017 will decrease from 2016 levels by approximately 19% from an estimated $1.94 trillion in 2016 to $1.57 trillion in 2017, and that the amount of originations in the U.S. single-family mortgage market that are refinancings will decrease from an estimated $927 billion in 2016 to $510 billion in 2017.

Home Prices. Based on our home price index, we estimate that home prices on a national basis increased by 5.9% in 2016. We expect the rate of home price appreciation in 2017 to be slightly lower than the rate in 2016. We also expect significant regional variation in the timing and rate of home price growth.

Credit Losses. Our credit losses, which include our charge-offs, net of recoveries, reflect our realization of losses on our loans. Our credit losses were $3.7 billion in 2016, down from $10.7 billion in 2015. We expect our credit losses to be lower in 2017 than in 2016, absent further significant redesignations related to loan sales; however, we expect a significantly smaller decline in credit losses in 2017 as compared with the decline in 2016. See "MD&A—Consolidated Results of Operations—Credit-Related Income (Expense)" for a discussion of our credit losses for 2016 and 2015, including the impact on our 2015 credit losses of our adoption of FHFA's Advisory Bulletin AB 2012-02, "Framework for Adversely Classifying Loans, Other Real Estate Owned, and Other Assets and Listing Assets for Special Mention" (the "Advisory Bulletin") and a change in our accounting policy for nonaccrual loans, which collectively resulted in $3.6 billion in charge offs in 2015.

Loss Reserves. Our combined loss reserves were $23.8 billion as of December 31, 2016, down from $28.6 billion as of December 31, 2015. Our loss reserves have declined substantially from their peak and are expected to decline further in 2017; however, we expect a smaller decline in our loss reserves in 2017 as compared with the decline in 2016. For a discussion of the factors that contributed to the decline in our loss reserves in 2016, see "MD&A—Consolidated Results of Operations—Credit-Related Income (Expense)" and "MD&A—Consolidated Balance Shee Analysis—Mortgage Loans and Allowance for Loan Losses."

Residential Mortgage Market

We conduct business in the U.S. residential mortgage market and the global securities market. According to the Federal Reserve, total U.S. residential mortgage debt outstanding was estimated to be approximately $11.4 trillion as of September 30, 2016 (the latest date for which information is available). We owned or guaranteed mortgage assets representing approximately 27% of total U.S. residential mortgage debt outstanding as of September 30, 2016.

We operate our business solely in the United States and its territories, and accordingly, we generate no revenue from and have no long-lived assets, other than financial instruments, in geographic locations other than the United States and its territories.

For a discussion of housing and mortgage market and economic conditions in the single-family U.S. residential housing market, see "MD&A—Business Segments—Single-Family Business—Single-Family Housing and Mortgage Market and Economic Conditions." For a discussion of conditions in the multifamily U.S. residential housing market, see "MD&A—Business Segments—Multifamily Business—Multifamily Mortgage Market."

Business Segments

We have two reportable business segments: Single-Family and Multifamily. Our Single-Family and Multifamily businesses engage in business activities that provide liquidity to the mortgage market and increase the availability and affordability of housing in the United States. The Single-Family business operates in the secondary mortgage market relating to loans secured by properties containing four or fewer residential dwelling units, which are referred to as single-family mortgage loans. The Multifamily business operates in the secondary mortgage market relating primarily to loans secured by properties containing five or more residential units, which are referred to as multifamily mortgage loans.

Previously, we had a third reportable business segment—Capital Markets. In the fourth quarter of 2016, we realigned the composition of our reportable business segments to incorporate the activities of the Capital Markets group into the Single-Family or Multifamily segments. Throughout this filing, all segment information for the years ended December 31, 2015 and December 31, 2014 has been revised to conform to our new segment reporting presentation. For additional information on our change in segment reporting presentation, see "MD&A—Business Segments" and "Note 12, Segment Reporting."

The table below summarizes the primary business activities and the primary sources of revenue and expense for each of our business segments.

Primary Business Activities	Primary Drivers of Revenue	Primary Drivers of Expense
Single-Family Business		
Mortgage securitizations: Works with our lender customers to acquire and securitize single-family mortgage loans delivered to us by lenders into Fannie Mae MBS. Also issues structured Fannie Mae MBS backed by single-family mortgage assets and provides other services to our lender customers. Credit risk management: Prices and manages the credit risk on loans in our single-family guaranty book of business. Also enters into transactions that transfer a portion of the credit risk on some of the loans in our single-family guaranty book of business. Credit loss management: Works to reduce costs of defaulted single-family loans through home retention solutions and foreclosure alternatives, management of foreclosures and our real estate owned ("REO") inventory, selling nonperforming loans, and pursuing contractual remedies from lenders, servicers and providers of credit enhancement.	Net interest income: Single-family net interest income is generated from two primary sources: (1) guaranty fees received as compensation for assuming and managing the credit risk on single-family loans underlying Fannie Mae MBS held by third parties; and (2) the difference between the interest income earned on single-family mortgage assets in our retained mortgage portfolio and the interest expense associated with the debt funding those assets. Revenues from single-family guaranty fees include revenues generated by the 10 basis point increase in guaranty fees we implemented in 2012 pursuant to the Temporary Payroll Tax Cut Continuation Act of 2011 ("TCCA"). Fee and other income: Compensation received for engaging in structured transactions and providing other lender services. Also includes income resulting from settlement agreements resolving certain claims relating to PLS sold to us or that we have guaranteed.	Credit-related expense: Consists of the provision for single-family credit losses and foreclosed property expense on loans underlying our single-family guaranty book of business. Fair value gains and losses: Primarily consists of fair value gains and losses on risk management and mortgage commitment derivatives, trading securities, and other financial instruments associated with our single-family mortgage credit book of business. Investment gains and losses: Primarily consists of gains and losses on the sale of single-family mortgage assets. Administrative expenses: Consists of salaries and benefits, occupancy costs, professional services, and other expenses associated with our Single-Family business operations. TCCA fees: Consists of the portion of our single-family guaranty fees that is remitted to Treasury pursuant to the TCCA.
Multifamily Business		
Mortgage securitizations: Works with our lender customers, primarily through our Delegated Underwriting and Servicing, or DUS®, program, to acquire and securitize multifamily mortgage loans delivered to us by lenders into Fannie Mae MBS. Also issues structured Fannie Mae MBS	Net interest income: Multifamily net interest income is generated from two primary sources: (1) guaranty fees received as compensation for assuming and managing the credit risk on multifamily loans underlying Fannie Mae MBS held by third parties; and (2) the difference between the interest income earned on multifamily mortgage assets in our retained mortgage portfolio and the interest expense	Credit-related expense: Consists of the provision for multifamily credit losses and foreclosed property expense on loans underlying our multifamily guaranty book of business.

backed by multifamily mortgage assets and provides other services to our lender customers.
Credit risk management: Prices and manages the credit risk on loans in our multifamily guaranty book of business. Lenders retain a portion of the credit risk in most multifamily transactions.
Credit loss management: Works to reduce costs of defaulted multifamily loans through foreclosure alternatives, management of foreclosures and our REO inventory, and pursuing contractual remedies from lenders, servicers and providers of credit enhancement.

associated with the debt funding those assets.
Fee and other income: Other fees associated with multifamily business activities, including yield maintenance income.

Fair value gains and losses: Primarily consists of fair value gains and losses on MBS commitment derivatives, trading securities, and other financial instruments associated with our multifamily mortgage credit book of business.
Investment gains and losses: Primarily consists of (1) gains and losses on the sale of multifamily mortgage assets; and (2) gains and losses related to consolidation activities.
Administrative expenses: Consists of salaries and benefits, occupancy costs, professional services, and other expenses associated with our Multifamily business operations.

The chart below displays the total net revenues for each of our business segments. Net revenues consist of net interest income and fee and other income.

For more information about the financial results and performance, and total assets, of each of our business segments, as well as more information about the activities of each segment, see “MD&A—Business Segments” and “Note 12, Segment Reporting.”

Mortgage Securitizations

We support market liquidity by issuing Fannie Mae MBS that are readily traded in the capital markets. We create Fannie Mae MBS by placing mortgage loans in a trust and issuing securities that are backed by those mortgage loans. Monthly payments received on the loans are the primary source of payments passed through to Fannie Mae MBS holders. We guarantee to the MBS trust that we will supplement amounts received by the MBS trust as required to permit timely payment of principal and interest on the trust certificates. In return for this guaranty, we receive guaranty fees.

Below we discuss (1) three broad categories of securitization transactions: lender swaps, portfolio securitizations and structured securitizations; (2) features of our MBS trusts; (3) single-class and multi-class Fannie Mae MBS; and (4) circumstances under which we purchase loans from MBS trusts.

Lender Swaps, Portfolio Securitizations and Structured Securitizations

We currently securitize a substantial majority of the single-family and multifamily mortgage loans we acquire. Our securitization transactions primarily fall within three broad categories: lender swap transactions; portfolio securitizations; and structured securitizations.

Lender swaps. Our most common type of securitization transaction is our “lender swap transaction.” In a single-family lender swap transaction, a mortgage lender that operates in the primary mortgage market generally delivers a pool of mortgage loans to us in exchange for Fannie Mae MBS backed by these mortgage loans. A pool of mortgage loans is a group of mortgage loans with similar characteristics. After receiving the mortgage loans in a lender swap transaction, we place them in a trust for which we serve as trustee. This trust is established for the sole purpose of holding the mortgage loans separate and apart from our corporate assets. We deliver to the lender (or its designee) Fannie Mae MBS that are backed by the pool of mortgage loans in the trust and that represent an undivided beneficial ownership interest in each of the mortgage loans. We guarantee to each MBS trust that we will supplement amounts received by the MBS trust as required to permit timely payment of principal and interest on the related Fannie Mae MBS. We retain a portion of the interest payment as a fee for providing our guaranty. The mortgage servicer also retains a portion of the interest payment as a fee for servicing the loan. Then, on behalf of the trust, we make monthly distributions to the Fannie Mae MBS certificateholders from the principal and interest payments and other collections on the underlying mortgage loans.

Our Multifamily business generally creates multifamily Fannie Mae MBS in lender swap transactions in a manner similar to our Single-Family business. Our multifamily lender customers typically deliver only one mortgage loan to back each multifamily Fannie Mae MBS. The characteristics of each mortgage loan are used to establish guaranty fees on a risk-adjusted basis. Securitizing a single multifamily mortgage loan into a Fannie Mae MBS facilitates its sale into the secondary market.

Portfolio securitization transactions. In contrast to our lender swap securitizations, in which a mortgage lender delivers a pool of mortgage loans to us that we immediately place in a trust for securitization, our "portfolio securitization transactions" involve creating and issuing Fannie Mae MBS using mortgage loans and mortgage-related securities that we hold in our retained mortgage portfolio. Most of our portfolio securitization transactions are driven by our single-family whole loan conduit activities, pursuant to which we purchase single-family whole loans from a large group of lenders principally for the purpose of securitizing the loans into Fannie Mae MBS, which may then be sold to dealers and investors. We also securitize loans that have been held in our portfolio for a longer period of time, including reperforming loans, to hold or to sell, which provides more flexibility to manage our risk and reduce the size of our retained mortgage portfolio. Reperforming loans are mortgage loans on which the borrower had previously been delinquent but subsequently became current, either with or without a modification. We also have created portfolio securitization transactions backed by multifamily mortgage loans.

Structured securitizations. In a "structured securitization transaction," we create structured Fannie Mae MBS, typically for our lender customers or securities dealer customers, in exchange for a transaction fee. In these transactions, the customer "swaps" a mortgage-related asset that it owns (typically a mortgage security) in exchange for a structured Fannie Mae MBS we issue. The process for issuing Fannie Mae MBS in a structured securitization is similar to the process involved in our lender swap securitizations described above.

We also issue structured transactions backed by multifamily Fannie Mae MBS through the Fannie Mae Guaranteed Multifamily Structures ("Fannie Mae GeMS™") program, which provides additional liquidity and stability to the multifamily market, while expanding the investor base for multifamily Fannie Mae MBS.

Features of Our MBS Trusts

Our MBS trusts hold either single-family or multifamily mortgage loans or mortgage-related securities. Each trust operates in accordance with a trust agreement or a trust indenture. Each MBS trust is also governed by an issue supplement documenting the formation of that MBS trust, the identification of its related assets and the issuance of the related Fannie Mae MBS. The trust agreement or the trust indenture, together with the issue supplement and any amendments, are considered the "trust documents" that govern an individual MBS trust.

Single-Class and Multi-Class Fannie Mae MBS

Fannie Mae MBS trusts may be single-class or multi-class. Single-class MBS are MBS in which the investors receive principal and interest payments on the mortgage loans backing the MBS directly in proportion to their percentage ownership of the MBS issuance. Multi-class MBS are MBS, including Real Estate Mortgage Investment Conduits ("REMICs"), in which the cash flows on the underlying mortgage assets are divided, creating several classes of securities, each of which represents a beneficial ownership interest in the assets of the related MBS trust and entitles the related holder to a specific portion and priority of cash flows. Terms to maturity of some multi-class Fannie Mae MBS, particularly REMIC classes, may match or be shorter than the maturity of the underlying mortgage loans and/or mortgage-related securities. After these classes mature, cash flows received on the underlying mortgage assets are allocated to the remaining classes in accordance with the payment terms of the securities. As a result, each of the classes in a multi-class MBS may have a different coupon rate, average life, repayment sensitivity or final maturity. Structured Fannie Mae MBS are either multi-class MBS or single-class MBS that are typically resecuritizations of other single-class Fannie Mae MBS. In a resecuritization, pools of MBS are collected and securitized.

Purchases of Loans from Our MBS Trusts

Under the terms of our MBS trust documents, we have the option or, in some instances, the obligation, to purchase mortgage loans that meet specific criteria from an MBS trust. Our acquisition cost for these loans is the unpaid principal balance of the loan plus accrued interest.

In deciding whether and when to exercise our option to purchase a loan from a single-family MBS trust, we consider a variety of factors, including: our legal ability to purchase loans under the terms of the trust documents; whether we have agreed to modify the loan; our mission and public policy; our loss mitigation strategies and the exposure to credit losses we face under our guaranty; our cost of funds; the impact on our results of operations; relevant market yields; the accounting impact; the administrative costs associated with purchasing and holding the loans; counterparty exposure to lenders that have agreed to cover losses associated with delinquent loans; and general market conditions. The weight we give to these factors changes depending on market circumstances and other factors. The cost of purchasing most delinquent loans from single-family Fannie Mae MBS trusts and holding them in our retained mortgage portfolio is currently less than the cost of advancing delinquent payments to security holders. We generally purchase loans from single-family MBS trusts as they become four or more consecutive monthly payments delinquent. During 2016, we purchased delinquent loans with an unpaid principal balance of $11.1 billion from our single-family MBS trusts. We expect to continue purchasing loans from single-family MBS trusts as they become four or more consecutive monthly payments delinquent subject to market conditions, economic benefit, servicer capacity and other factors, including the limit on the amount of mortgage assets that we may own pursuant to the senior preferred stock purchase agreement and FHFA's portfolio plan requirements.

For our multifamily MBS trusts, we typically exercise our option to purchase a loan from the trust if the loan is delinquent as to four or more consecutive monthly payments, whether those payments were missed in whole or in part.

Conservatorship and Treasury Agreements

Conservatorship

On September 6, 2008, the Director of FHFA appointed FHFA as our conservator, pursuant to authority provided by the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended, including by the Federal Housing Finance Regulatory Reform Act of 2008 (together, the "GSE Act"). The conservatorship is a statutory process designed to preserve and conserve our assets and property and put the company in a sound and solvent condition.

The conservatorship has no specified termination date and there continues to be significant uncertainty regarding the future of our company, including how long the company will continue to exist in its current form, the extent of our role in the market, how long we will be in conservatorship, what form we will have and what ownership interest, if any, our current common and preferred stockholders will hold in us after the conservatorship is terminated, and whether we will continue to exist following conservatorship. For more information on the risks to our business relating to the conservatorship and uncertainties regarding the future of our company and business, as well as the adverse effects of the conservatorship on the rights of holders of our common and preferred stock, see "Risk Factors."

Our conservatorship could terminate through a receivership. For information on the circumstances under which FHFA is required or permitted to place us into receivership and the potential consequences of receivership, see "Legislation and Regulation—GSE Act and Other Regulation of Our Business—Receivership" and "Risk Factors."

Management of the Company during Conservatorship

Upon its appointment, the conservator immediately succeeded to (1) all rights, titles, powers and privileges of Fannie Mae, and of any shareholder, officer or director of Fannie Mae with respect to Fannie Mae and its assets, and (2) title to the books, records and assets of any other legal custodian of Fannie Mae. The conservator subsequently delegated specified authorities to our Board of Directors and delegated to management the authority to conduct our day-to-day operations. In connection with its delegation of authority, FHFA has instructed the Board to oversee that management consults with and obtains the written approval of the conservator before taking action in any of the areas described in "Directors, Executive Officers and Corporate Governance—Corporate Governance—Conservatorship and Delegation of Authority to Board of Directors," which includes matters that require the approval of or consultation with Treasury under the senior preferred stock purchase agreement. FHFA's instructions also require the company to notify FHFA of planned changes in business processes or operations, so that FHFA may participate in decision-making as FHFA determines appropriate. The conservator retains the authority to amend or withdraw its delegations at any time.

Our directors serve on behalf of the conservator and exercise their authority as directed by and with the approval, where required, of the conservator. Our directors have no fiduciary duties to any person or entity except to the conservator. Accordingly, our directors are not obligated to consider the interests of the company, the holders of our equity or debt securities or the holders of Fannie Mae MBS unless specifically directed to do so by the conservator. Because we are in conservatorship, our common stockholders currently do not have the ability to elect directors or to vote on other matters. The conservator eliminated common and preferred stock dividends (other than dividends on the senior preferred stock issued to Treasury) during the conservatorship.

Powers of the Conservator under the GSE Act

FHFA has broad powers when acting as our conservator. As conservator, FHFA can direct us to enter into contracts or enter into contracts on our behalf. Further, FHFA may transfer or sell any of our assets or liabilities (subject to limitations and post-transfer notice provisions for transfers of certain types of financial contracts), without any approval, assignment of rights or consent of any party. The GSE Act provides, however, that mortgage loans and mortgage-related assets that have been transferred to a Fannie Mae MBS trust must be held by the conservator for the beneficial owners of the Fannie Mae MBS and cannot be used to satisfy the general creditors of the company. Neither the conservatorship nor the terms of our agreements with Treasury change our obligation to make required payments on our debt securities or perform under our mortgage guaranty obligations.

Treasury Agreements

On September 7, 2008, we, through FHFA, in its capacity as conservator, and Treasury entered into a senior preferred stock purchase agreement, which was amended and restated on September 26, 2008. The amended and restated agreement was subsequently amended on May 6, 2009, December 24, 2009 and August 17, 2012. Unless the context indicates otherwise, references in this report to the senior preferred stock purchase agreement refer to the agreement as amended through August 17, 2012. The terms of the senior preferred stock purchase agreement, senior preferred stock and the warrant discussed below continue to apply to us even if we are released from conservatorship. See "Risk Factors" for a description of the risks to our business relating to the Treasury agreements, as well as the adverse effects of the senior preferred stock and the warrant on the rights of holders of our common stock and other series of preferred stock.

Senior Preferred Stock Purchase Agreement and Related Issuance of Senior Preferred Stock and Common Stock Warrant

Senior Preferred Stock Purchase Agreement

Under the senior preferred stock purchase agreement, we issued to Treasury (a) one million shares of Variable Liquidation Preference Senior Preferred Stock, Series 2008-2, which we refer to as the "senior preferred stock," and (b) a warrant to purchase, for a nominal price, shares of common stock equal to 79.9% of the total number of shares of our common stock outstanding on a fully diluted basis at the time the warrant is exercised, which we refer to as the "warrant."

The senior preferred stock and warrant were issued to Treasury as an initial commitment fee in consideration of the commitment from Treasury to provide funds to us under the terms and conditions set forth in the senior preferred stock purchase agreement. The senior preferred stock purchase agreement provides that, on a quarterly basis, we may draw funds up to the amount, if any, by which our total liabilities exceed our total assets, as reflected in our consolidated balance sheet, prepared in accordance with generally accepted accounting principles ("GAAP"), for the applicable fiscal quarter (referred to as the "deficiency amount"), up to the maximum amount of remaining funding under the agreement. As of the date of this filing, the maximum amount of remaining funding under the agreement is $117.6 billion. If we were to draw additional funds from Treasury under the agreement in a future period, the amount of remaining funding under the agreement would be reduced by the amount of our draw. Dividend payments we make to Treasury do not restore or increase the amount of funding available to us under the agreement. The senior preferred stock purchase agreement provides that the deficiency amount will be calculated differently if we become subject to receivership or other liquidation process.

The terms of the senior preferred stock purchase agreement provided for the payment of an unspecified quarterly commitment fee to Treasury; however, the August 2012 amendment to the agreement provided that this commitment fee will not be set, accrue or be payable, as long as the current dividend payment provisions of the senior preferred stock remain in effect.

Treasury's funding commitment under the senior preferred stock purchase agreement has no expiration date. The senior preferred stock purchase agreement provides that Treasury's funding commitment will terminate under any of the following circumstances: (1) the completion of our liquidation and fulfillment of Treasury's obligations under its funding commitment at that time; (2) the payment in full of, or reasonable provision for, all of our liabilities (whether or not contingent, including mortgage guaranty obligations); or (3) the funding by Treasury of the maximum amount that may be funded under the agreement. In addition, Treasury may terminate its funding commitment and declare the senior preferred stock purchase agreement null and void if a court vacates, modifies, amends, conditions, enjoins, stays or otherwise affects the appointment of the conservator or otherwise curtails the conservator's powers. Treasury may not terminate its funding commitment under the agreement solely by reason of our being in conservatorship, receivership or other insolvency proceeding, or due to our financial condition or any adverse change in our financial condition.

The senior preferred stock purchase agreement provides that most provisions of the agreement may be waived or amended by mutual written agreement of the parties; however, no waiver or amendment of the agreement is permitted that would decrease Treasury's aggregate funding commitment or add conditions to Treasury's funding commitment if the waiver or amendment would adversely affect in any material respect the holders of our debt securities or guaranteed Fannie Mae MBS.

In the event of our default on payments with respect to our debt securities or guaranteed Fannie Mae MBS, if Treasury fails to perform its obligations under its funding commitment and if we and/or the conservator are not diligently pursuing remedies in respect of that failure, the holders of our debt securities or Fannie Mae MBS may file a claim in the United States Court of Federal Claims for relief requiring Treasury to fund to us the lesser of (1) the amount necessary to cure the payment defaults on our debt and Fannie Mae MBS and (2) the lesser of (a) the deficiency amount and (b) the maximum amount that may be funded under the agreement less the aggregate amount of funding previously provided under the commitment. Any payment that Treasury makes under those circumstances will be treated for all purposes as a draw under the senior preferred stock purchase agreement that will increase the liquidation preference of the senior preferred stock.

Senior Preferred Stock

Pursuant to the senior preferred stock purchase agreement, we issued one million shares of senior preferred stock to Treasury on September 8, 2008 with an aggregate initial liquidation preference of $1.0 billion. The stock's liquidation preference is subject to adjustment. For any dividend period for which dividends are payable, to the extent that dividends are not paid in cash they will accrue and be added to the liquidation preference. In addition, any amounts Treasury pays to us pursuant to its funding commitment under the senior preferred stock purchase agreement and any quarterly commitment fees that are either not paid in cash to Treasury or not waived by Treasury will be added to the liquidation preference. Accordingly, the aggregate liquidation preference of the senior preferred stock was $117.1 billion as of December 31, 2016.

Treasury, as holder of the senior preferred stock, is entitled to receive, when, as and if declared, out of legally available funds, cumulative quarterly cash dividends. Pursuant to the August 2012 amendment to the agreement, beginning in 2013, the method for calculating the amount of dividends for each quarter was changed from an annual rate of 10% per year on the then-current liquidation preference of the senior preferred stock to an amount determined based on our net worth as of the end of the immediately preceding fiscal quarter. Our net worth as defined by the agreement is the amount, if any, by which our total assets (excluding Treasury's funding commitment and any unfunded amounts related to the commitment) exceed our total liabilities (excluding any obligation in respect of capital stock), in each case as reflected on our balance sheet prepared in accordance with GAAP. For each dividend period from January 1, 2013 through and including December 31, 2017, the dividend amount will be the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds an applicable capital reserve amount. The capital reserve amount was initially $3.0 billion for dividend periods in 2013 and decreases by $600 million each year until it reaches zero on January 1, 2018. Accordingly, the capital reserve amount was $1.2

billion for dividend periods in 2016 and decreased to $600 million for dividend periods in 2017. For each dividend period beginning in 2018, the dividend amount will be the entire amount of our net worth, if any, as of the end of the immediately preceding fiscal quarter. As a result of these dividend payment provisions and quarterly directives from our conservator, when we have quarterly earnings that result in a net worth greater than the applicable capital reserve amount, we will pay dividends to Treasury in the next quarter; but if our net worth does not exceed the applicable capital reserve amount as of the end of a quarter, then we will not be required to accrue or pay any dividends in the next quarter. See “Risk Factors” for a discussion of the risks relating to our limited and declining capital reserves and our dividend obligations to Treasury on the senior preferred stock.

The senior preferred stock ranks ahead of our common stock and all other outstanding series of our preferred stock, as well as any capital stock we issue in the future, as to both dividends and rights upon liquidation. The senior preferred stock provides that we may not, at any time, declare or pay dividends on, make distributions with respect to, or redeem, purchase or acquire, or make a liquidation payment with respect to, any common stock or other securities ranking junior to the senior preferred stock unless (1) full cumulative dividends on the outstanding senior preferred stock (including any unpaid dividends added to the liquidation preference) have been declared and paid in cash, and (2) all amounts required to be paid with the net proceeds of any issuance of capital stock for cash (as described in the following paragraph) have been paid in cash. Shares of the senior preferred stock are not convertible. Shares of the senior preferred stock have no general or special voting rights, other than those set forth in the certificate of designation for the senior preferred stock or otherwise required by law. The consent of holders of at least two-thirds of all outstanding shares of senior preferred stock is generally required to amend the terms of the senior preferred stock or to create any class or series of stock that ranks prior to or on parity with the senior preferred stock.

We are not permitted to redeem the senior preferred stock prior to the termination of Treasury’s funding commitment under the senior preferred stock purchase agreement. Moreover, we are not permitted to pay down the liquidation preference of the outstanding shares of senior preferred stock except to the extent of (1) accrued and unpaid dividends previously added to the liquidation preference and not previously paid down; and (2) quarterly commitment fees previously added to the liquidation preference and not previously paid down. In addition to these exceptions, if we issue any shares of capital stock for cash while the senior preferred stock is outstanding, the net proceeds of the issuance must be used to pay down the liquidation preference of the senior preferred stock; however, the liquidation preference of each share of senior preferred stock may not be paid down below $1,000 per share prior to the termination of Treasury’s funding commitment. Following the termination of Treasury’s funding commitment, we may pay down the liquidation preference of all outstanding shares of senior preferred stock at any time, in whole or in part.

In December 2015, as part of a funding bill, Congress enacted legislation prohibiting Treasury from disposing of its Fannie Mae and Freddie Mac senior preferred stock until January 1, 2018, unless legislation is enacted that includes specific instruction for its disposition.

Common Stock Warrant

Pursuant to the senior preferred stock purchase agreement, on September 7, 2008, we, through FHFA, in its capacity as conservator, issued a warrant to purchase common stock to Treasury. The warrant gives Treasury the right to purchase shares of our common stock equal to 79.9% of the total number of shares of our common stock outstanding on a fully diluted basis on the date of exercise, for an exercise price of $0.00001 per share. The warrant may be exercised in whole or in part at any time on or before September 7, 2028.

Covenants under Treasury Agreements

The senior preferred stock purchase agreement and warrant contain covenants that significantly restrict our business activities and require the prior written consent of Treasury before we can take certain actions. As a result of these covenants, we can no longer obtain additional equity financing (other than pursuant to the senior preferred stock purchase agreement) and we are limited in the amount and type of debt financing we may obtain.

These covenants prohibit us from taking a number of actions, including:

- paying dividends or other distributions on or repurchasing our equity securities (other than the senior preferred stock or warrant);
- issuing additional equity securities (except in limited instances);
- selling, transferring, leasing or otherwise disposing of any assets, except for dispositions for fair market value in limited circumstances including if (a) the transaction is in the ordinary course of business and consistent with past practice or (b) in one transaction or a series of related transactions if the assets have a fair market value individually or in the aggregate of less than $250 million;

- issuing subordinated debt;

- entering into any new compensation arrangements or increasing amounts or benefits payable under existing compensation arrangements for any of our executive officers (as defined by Securities and Exchange Commission ("SEC") rules) without the consent of the Director of FHFA, in consultation with the Secretary of the Treasury; and
- seeking or permitting the termination of our conservatorship, other than in connection with a receivership.

We also are subject to limits, which are described below, on the amount of mortgage assets that we may own and the total amount of our indebtedness.

- Mortgage Asset Limit. We are restricted in the amount of mortgage assets that we may own. Pursuant to the August 2012 amendment to the agreement, the maximum allowable amount of our mortgage assets was reduced to $650 billion on December 31, 2012 and, on each December 31 thereafter, we are required to reduce our mortgage assets to 85% of the maximum allowable amount that we were permitted to own as of December 31 of the immediately preceding calendar year, until the amount of our mortgage assets reaches $250 billion in 2018. Our mortgage asset limit under the agreement was $339.3 billion as of December 31, 2016 and will be $288.4 billion as of December 31, 2017. For purposes of the agreement, the definition of mortgage asset is based on the unpaid principal balance of such assets and does not reflect market valuation adjustments, allowance for loan losses, impairments, unamortized premiums and discounts and the impact of our consolidation of variable interest entities. Based on this definition, our mortgage assets were $272.4 billion as of December 31, 2016. We disclose the amount of our mortgage assets on a monthly basis under the caption "Gross Mortgage Portfolio" in our Monthly Summaries, which are available on our website and announced in a press release.

In 2014, FHFA requested that we cap the portfolio each year at 90% of the annual limit under our senior preferred stock purchase agreement with Treasury. FHFA's request noted that we may seek FHFA permission to increase this cap up to 95% of the annual limit under our senior preferred stock purchase agreement with Treasury upon written request and with a documented basis for exception, such as changed market conditions. To comply with FHFA's request, we reduced our mortgage portfolio to $272.4 billion as of December 31, 2016, below the $305.4 billion cap requested by FHFA. See "MD&A—Retained Mortgage Portfolio" for more information about our retained mortgage portfolio.

- Debt Limit. We are subject to a limit on the amount of our indebtedness. Our debt limit in 2016 was $479.0 billion and in 2017 is $407.2 billion. For every year thereafter, our debt cap will equal 120% of the amount of mortgage assets we are allowed to own under the senior preferred stock purchase agreement on December 31 of the immediately preceding calendar year. The definition of indebtedness for purposes of our debt cap is based on the par value of each applicable loan and does not reflect the impact of consolidation of variable interest entities. Under this definition, our indebtedness as of December 31, 2016 was $328.8 billion. We disclose the amount of our indebtedness on a monthly basis under the caption "Total Debt Outstanding" in our Monthly Summaries, which are available on our website and announced in a press release.

Annual Risk Management Plan Covenant. We are required to provide an annual risk management plan to Treasury each year we remain in conservatorship. Each plan is required to set out our strategy for reducing our risk profile, describe the actions we will take to reduce the financial and operational risk associated with each of our business segments, and include an assessment of our performance against the planned actions described in the prior year's plan. We submitted our most recent annual risk management plan to Treasury in December 2016.

Lawsuits Challenging the Senior Preferred Stock Purchase Agreements and Conservatorship

Several lawsuits have been filed by preferred and common stockholders of Fannie Mae and Freddie Mac against one or more of the United States, Treasury and FHFA challenging actions taken by the defendants relating to the senior preferred stock purchase agreements and the conservatorships of Fannie Mae and Freddie Mac. Some of these lawsuits also contain claims against Fannie Mae and Freddie Mac. For a description of these lawsuits, see "Legal Proceedings" and "Note 18, Commitments and Contingencies."

Legislation and Regulation

Housing Finance Reform

Policymakers and others have focused significant attention in recent years on how to reform the nation's housing finance system, including what role, if any, the GSEs should play. We describe below recent actions and statements relating to housing finance reform from the Administration and Congress, as well as actions our conservator has been taking to further housing finance reform.

Administration Developments

The previous Administration endorsed the wind down of Fannie Mae and Freddie Mac through a responsible transition and the enactment of comprehensive housing finance reform legislation. The current Administration has not articulated a formal position on housing finance reform or the future of the GSEs; however, the Treasury Secretary indicated in his confirmation hearing that he is focused on housing finance reform and a solution to the current status of Fannie Mae and Freddie Mac.

Legislative Developments

Several bills were introduced and considered in the Senate and the House of Representatives in prior sessions of Congress relating to housing finance reform. The current session of Congress began in January 2017. The current Chairman of the Senate Committee on Banking, Housing and Urban Affairs and the current Chairman of the House Committee on Financial Services have both stated that passing comprehensive housing finance reform is a priority of their committees. Accordingly, we expect Congress to continue to consider housing finance reform legislation in the current congressional session that could result in significant changes in our structure and role in the future, including proposals that would result in Fannie Mae's liquidation or dissolution. As a result, there continues to be significant uncertainty regarding the future of our company. See "Risk Factors" for a discussion of the risks to our business relating to the uncertain future of our company.

Conservator Developments and Strategic Goals

FHFA has taken a number of steps as conservator to further the reform of the housing finance system. FHFA's current strategic goals for Fannie Mae and Freddie Mac's conservatorships are to:

- Maintain, in a safe and sound manner, credit availability and foreclosure prevention activities for new and refinanced mortgages to foster liquid, efficient, competitive and resilient national housing finance markets.
- Reduce taxpayer risk through increasing the role of private capital in the mortgage market.
- Build a new single-family infrastructure for use by Fannie Mae and Freddie Mac and adaptable for use by other participants in the secondary market in the future.

Beginning in 2012, FHFA has released annual corporate performance objectives for Fannie Mae and Freddie Mac, referred to as the conservatorship scorecard. The conservatorship scorecard details the specific priorities each year for implementing FHFA's strategic goals. Some of the actions we are taking pursuant to the mandates of the scorecards are helping to build the policies and infrastructure for a safer and sustainable housing finance system. FHFA's conservatorship scorecards in recent years have included objectives relating to credit risk transfer transactions, development of a common securitization platform for Fannie Mae and Freddie Mac, development of a single mortgage-backed security for Fannie Mae and Freddie Mac, and mortgage data standardization initiatives.

For several years, FHFA's conservatorship scorecards have included objectives relating to the development of a common securitization platform that can be used to perform certain aspects of the securitization process and the development of a single mortgage-backed security for Fannie Mae and Freddie Mac. FHFA's 2017 conservatorship scorecard states that the common securitization platform and single security are significant, multi-year initiatives, and FHFA expects these inter-related projects to remain ongoing conservatorship priorities. More information on these initiatives is provided below.

Common Securitization Platform. In October 2013, at the direction of our conservator, Fannie Mae and Freddie Mac established Common Securitization Solutions, LLC ("CSS"), a jointly owned limited liability company formed to design, develop, build and ultimately operate a common securitization platform. The intended purpose of the common securitization platform is to replace certain elements of Fannie Mae's and Freddie Mac's respective

proprietary systems for securitizing mortgages and performing associated back office and administrative functions. In addition, FHFA has specified that the design of the common securitization platform should allow for the integration of additional market participants in the future.

In 2014, Fannie Mae and Freddie Mac executed three agreements relating to the governance and operation of CSS, and appointed a chief executive officer and four members of the CSS Board of Managers, two each from Fannie Mae and Freddie Mac. CSS currently operates as a separate company from us and Freddie Mac, with funding and limited administrative support services and other resources provided to it by us and Freddie Mac. In November 2016, Fannie Mae, Freddie Mac and CSS entered into a Customer Services Agreement that sets forth the terms under which CSS will provide securitization services to us and Freddie Mac.

In November 2016, Freddie Mac began using the common securitization platform for some activities relating to the issuance of its current single-class fixed-rate mortgage-backed securities. We continue to work with FHFA, Freddie Mac and CSS on building and testing the common securitization platform, as well as on implementing required changes to our systems and operations to integrate with the common securitization platform. In addition, we continue to consult with an industry advisory group on the common securitization platform and single security.

Single Security. Since 2014, we, Freddie Mac and FHFA have been working on developing and implementing a single mortgage-backed security for Fannie Mae and Freddie Mac. FHFA has determined that the following features will apply to these single securities:

- Fannie Mae and Freddie Mac will each issue and guarantee single securities directly backed by mortgage loans it has acquired, referred to as first-level securities, and will not cross-guarantee each other's first-level securities;
- mortgage loans backing first-level single securities will be limited to fixed-rate mortgage loans now eligible for financing through the "To-Be-Announced" ("TBA") market;
- Fannie Mae and Freddie Mac will each be able to issue second-level single securities, also referred to as resecuritizations, backed by first- or second-level securities issued by either company;
- the key features of the new single security will be the same as those of the current Fannie Mae MBS;
- the loan- and security-level disclosures for single securities will closely resemble those of Freddie Mac participation certificates ("Freddie Mac PCs"); and
- investors in Freddie Mac PCs will have the option to exchange legacy Freddie Mac PCs for comparable single securities backed by the same mortgage loans; there will not be an exchange option for legacy Fannie Mae MBS because FHFA expects investors to treat them as fungible with the single securities.

In December 2016, FHFA announced that it expects to announce in the first quarter of 2017 a timeframe for implementation of the single security by Fannie Mae and Freddie Mac.

Historically, Fannie Mae MBS has had a trading advantage over comparable Freddie Mac PCs. One of FHFA's stated objectives in developing a single security is to reduce the costs to Freddie Mac and taxpayers that result from differences in liquidity of Fannie Mae MBS and Freddie Mac PCs. As the implementation date of the single security approaches, some Fannie Mae MBS and comparable Freddie Mac PCs have traded closer to or at parity. See "Risk Factors" for a discussion of the risks to our business associated with a single security for Fannie Mae and Freddie Mac.

For more information on FHFA's 2017 conservatorship scorecard objectives, see our Current Report on Form 8-K filed with the SEC on December 16, 2016. For information on actions we took in 2016 pursuant to FHFA's 2016 conservatorship scorecard, see "Executive Compensation—Compensation Discussion and Analysis—Determination of 2016 Compensation—Assessment of Corporate Performance on 2016 Conservatorship Scorecard."

Charter Act

Fannie Mae is a shareholder-owned corporation organized and existing under the Federal National Mortgage Association Charter Act, which we refer to as the Charter Act or our charter. We were initially established in 1938. The Charter Act defines our mission of providing liquidity, increasing stability and promoting affordability in the residential mortgage market. Specifically, the Charter Act states that our purposes are to:

- provide stability in the secondary market for residential mortgages;

- respond appropriately to the private capital market;
- provide ongoing assistance to the secondary market for residential mortgages (including activities relating to mortgages on housing for low- and moderate-income families involving a reasonable economic return that may be less than the return earned on other activities) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing; and
- promote access to mortgage credit throughout the nation (including central cities, rural areas and underserved areas) by increasing the liquidity of mortgage investments and improving the distribution of investment capital available for residential mortgage financing.

The Charter Act also sets forth the activities that we are permitted to conduct and describes our general corporate powers. We summarize these provisions of the Charter Act below.

- Purchase and securitization of mortgage loans. Our charter permits us to purchase and securitize mortgage loans secured by single-family and multifamily properties. We are also authorized to service, sell, lend on the security of, and otherwise deal in mortgage loans.
- Principal balance limitations. Single-family conventional mortgage loans that we purchase or securitize are subject to maximum original principal balance limits, known as "conforming loan limits." The conforming loan limits are established each year based on the average prices of one-family residences. FHFA set the national conforming loan limit for mortgages that finance one-family residences at $424,100 for 2017, with higher limits for mortgages secured by two-family to four-family residences and in four statutorily-designated states and territories (Alaska, Hawaii, Guam and the U.S. Virgin Islands). In addition, higher loan limits of up to 150% of the otherwise applicable loan limit apply in designated high-cost areas. FHFA provides Fannie Mae with the designated high-cost areas annually. For 2006 to 2016, the national conforming loan limit for one-family residences was set at $417,000. The Charter Act does not impose maximum original principal balance limits on loans we purchase or securitize that are insured by the Federal Housing Administration ("FHA") or guaranteed by the Department of Veterans Affairs ("VA") or on multifamily mortgage loans that we purchase or securitize.
- Credit enhancement requirements. The Charter Act generally requires credit enhancement on any single-family conventional mortgage loan that we purchase or securitize that has a loan-to-value ("LTV") ratio over 80% at the time of purchase. The credit enhancement required by our charter may take the form of one or more of the following: (1) insurance or a guaranty by a qualified insurer on the portion of the unpaid principal balance of the mortgage that exceeds 80%; (2) a seller's agreement to repurchase or replace the mortgage in the event of default; or (3) retention by the seller of at least a 10% participation interest in the mortgage. Regardless of LTV ratio, the Charter Act does not require us to obtain credit enhancement to purchase or securitize loans insured by FHA or guaranteed by the VA.
- Issuances of our securities. We are authorized, upon the approval of the Secretary of the Treasury, to issue debt obligations and mortgage-related securities. Neither the U.S. government nor any of its agencies guarantees, directly or indirectly, our debt or mortgage-related securities.
- Authority of Treasury to purchase our securities. At the discretion of the Secretary of the Treasury, Treasury may purchase our obligations up to a maximum of $2.25 billion outstanding at any one time.
- Exemptions for our securities. The Charter Act generally provides that our securities are exempt under the federal securities laws administered by the SEC. As a result, we are not required to file registration statements with the SEC under the Securities Act of 1933 with respect to offerings of any of our securities. Our non-equity securities are also exempt securities under the Securities Exchange Act of 1934 (the "Exchange Act"). However, our equity securities are not treated as exempt securities for purposes of Sections 12, 13, 14 or 16 of the Exchange Act. Consequently, we are required to file periodic and current reports with the SEC, including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K.
- Exemption from specified taxes. Fannie Mae is exempt from taxation by states, territories, counties, municipalities and local taxing authorities, except for taxation by those authorities on our real property. We are not exempt from the payment of federal corporate income taxes.
- Limitations. We may not originate mortgage loans in the primary mortgage market. We also may not advance funds to a mortgage seller on an interim basis, using mortgage loans as collateral, pending the sale

of the mortgages in the secondary market. In addition, we may only purchase or securitize mortgages on properties located in the United States and its territories.

GSE Act and Other Regulation of Our Business

As a federally chartered corporation, we are subject to government regulation and oversight. FHFA is our primary regulator, and regulates our safety and soundness and our mission. FHFA is an independent agency of the federal government with general supervisory and regulatory authority over Fannie Mae, Freddie Mac and the Federal Home Loan Banks ("FHLBs"). The Department of Housing and Urban Development ("HUD") is our regulator with respect to fair lending matters. Our regulators also include the SEC and Treasury.

The GSE Act provides FHFA with safety and soundness authority that is comparable to and in some respects broader than that of the federal banking agencies. We describe below regulations applicable to us pursuant to the GSE Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act") and other legislation. The current Administration and some members of Congress have indicated a desire to amend the Dodd-Frank Act. If the Dodd-Frank Act is amended, it could affect regulations currently applicable to us and our customers and counterparties.

Capital

We are required by the GSE Act to maintain sufficient capital to meet minimum and risk-based capital levels established by FHFA in order to be classified as "adequately capitalized." However, because we are under conservatorship, FHFA has suspended our capital classifications and advised us that we will not be subject to corrective action requirements that would ordinarily result from our receiving a capital classification of "undercapitalized." We continue to submit capital reports to FHFA and FHFA monitors our capital levels, but FHFA has stated that it does not intend to publish our risk-based capital level or our critical capital level during the conservatorship.

- Minimum Capital. Under the GSE Act, we are required to maintain an amount of core capital that equals or exceeds our minimum capital requirement. The GSE Act defines core capital as the sum of the stated value of outstanding common stock (common stock less treasury stock), the stated value of outstanding non-cumulative perpetual preferred stock, paid-in capital, and retained earnings, as determined in accordance with GAAP. Our minimum capital requirement is generally equal to the sum of 2.50% of on-balance sheet assets and 0.45% of off-balance sheet obligations. For purposes of minimum capital, FHFA has directed us to continue reporting loans backing Fannie Mae MBS held by third parties based on 0.45% of the unpaid principal balance regardless of whether these loans have been consolidated pursuant to accounting rules. The GSE Act provides FHFA with broad authority to increase the level of our required minimum capital and to establish capital or reserve requirements for specific products and activities.
- Risk-Based Capital. The GSE Act requires FHFA to establish risk-based capital requirements for Fannie Mae and Freddie Mac, to ensure that we operate in a safe and sound manner. Existing risk-based capital regulation under the GSE Act ties our capital requirements to the risk in our book of business, as measured by a stress test model. FHFA has discontinued stress test simulations under the existing rule. We continue to submit detailed profiles of our books of business to FHFA to support FHFA's monitoring of our business activity and their research into future risk-based capital rules.
- Critical Capital. The GSE Act also establishes a critical capital requirement, which is the amount of core capital below which we would be classified as "critically undercapitalized." Under the GSE Act, such classification is a discretionary ground for appointing a conservator or receiver. Our critical capital requirement is generally equal to the sum of 1.25% of on-balance sheet assets and 0.25% of off-balance sheet obligations. FHFA has directed us, for purposes of critical capital, to continue reporting loans backing Fannie Mae MBS held by third parties based on 0.25% of the unpaid principal balance, notwithstanding our consolidation of substantially all of the loans backing these securities.

Stress Testing

The Dodd-Frank Act requires certain financial companies to conduct annual stress tests to determine whether the companies have the capital necessary to absorb losses as a result of adverse economic conditions. Under FHFA regulations implementing this requirement, each year we are required to conduct a stress test using three different scenarios of financial conditions provided by FHFA: baseline, adverse and severely adverse. In conducting the stress test, we are required to calculate the impact of the scenario conditions on our capital levels and other

specified measures of financial condition and performance over a period of at least nine quarters. In accordance with FHFA regulations, we submitted our most recent stress test results to FHFA and the Federal Reserve Board of Governors in May 2016 and published our most recent stress test results for the severely adverse scenario on our website in August 2016.

Portfolio

The GSE Act requires FHFA to establish standards governing our portfolio holdings, to ensure that they are backed by sufficient capital and consistent with our mission and safe and sound operations. FHFA is also required to monitor our portfolio and, in some circumstances, may require us to dispose of or acquire assets. In 2010, FHFA adopted, as the standard for our portfolio holdings, the portfolio limits specified in the senior preferred stock purchase agreement described under "Conservatorship and Treasury Agreements—Treasury Agreements—Covenants under Treasury Agreements," as it may be amended from time to time. The rule is effective for as long as we remain subject to the terms and obligations of the senior preferred stock purchase agreement.

New Products and Activities

The GSE Act requires us to request FHFA's approval before initially offering any new product, subject to certain exceptions. The GSE Act also requires us to provide FHFA with written notice before commencing any new activity. In July 2009, FHFA published an interim final rule implementing these provisions of the GSE Act. Subsequently, the then-Acting Director of FHFA concluded that permitting us to engage in new products was inconsistent with the goals of the conservatorship. FHFA therefore instructed us not to submit new product requests under the rule. In December 2016, FHFA published a final rule implementing our duty to serve three specified underserved markets, which is described below under "Duty to Serve Underserved Markets." Among other things, the rule states that we may propose a new product for FHFA consideration if we determine that it would facilitate our duty to serve obligations and would be consistent with safety and soundness.

Prudential Management and Operations Standards

As required by the GSE Act, in June 2012, FHFA published a final rule establishing prudential standards relating to the management and operations of Fannie Mae, Freddie Mac and the FHLBs in ten areas: (1) internal controls and information systems; (2) independence and adequacy of internal audit systems; (3) management of market risk exposure; (4) management of market risk—measurement systems, risk limits, stress testing, and monitoring and reporting; (5) adequacy and maintenance of liquidity and reserves; (6) management of asset and investment portfolio growth; (7) investments and acquisitions of assets; (8) overall risk management processes; (9) management of credit and counterparty risk; and (10) maintenance of adequate records. The rule also includes provisions addressing the general responsibilities of boards of directors and senior management. In November 2015, FHFA amended these provisions and designated them as an additional prudential standard in order to clarify that they have the same effect and can be enforced in the same manner as the ten enumerated standards.

Affordable Housing Allocations

The GSE Act requires us to set aside in each fiscal year an amount equal to 4.2 basis points for each dollar of the unpaid principal balance of our total new business purchases and to pay this amount to specified HUD and Treasury funds. FHFA suspended this requirement in November 2008 and directed us to not set aside or allocate funds until further notice. In December 2014, FHFA terminated this suspension and directed us to begin making contributions to the funds. FHFA's directive reinstating these contributions requires us to set aside amounts during each fiscal year beginning in fiscal year 2015, and to allocate or otherwise transfer the amounts set aside within 60 days after the end of each fiscal year, unless during such fiscal year we have made a draw from Treasury under the terms of the senior preferred stock purchase agreement or unless such allocation or transfer would cause us to have to make a draw from Treasury under the agreement, in which case we will make no allocation or transfer for that year and the amounts set aside for that year will be reversed. We are prohibited from redirecting or passing through the cost of these allocations to originators of mortgages that we purchase or securitize.

Executive Compensation

Fannie Mae's Charter provides that the company has the power to pay compensation to our executives that the Board of Directors determines is reasonable and comparable with the compensation of executives performing similar duties in similar businesses, except that a significant portion of potential compensation must be based on

our performance. The GSE Act directs FHFA to prohibit us from providing unreasonable or non-comparable compensation to our executive officers. FHFA may at any time review the reasonableness and comparability of an executive officer's compensation and may require us to withhold any payment to the officer during such review. In addition, pursuant to the Stop Trading on Congressional Knowledge Act (the "STOCK Act") and related regulations issued by FHFA, our senior executives are prohibited from receiving bonuses during any period of conservatorship on or after April 4, 2012.

FHFA is authorized by the GSE Act to prohibit or limit certain golden parachute and indemnification payments to directors, officers and certain other parties. FHFA regulation requires the approval of the Director of FHFA before we may enter into any agreement providing compensation in connection with the termination of an executive officer's employment. FHFA regulation also generally prohibits us from making golden parachute payments to any current or former director, officer, employee, controlling stockholder or agent of the company during any period in which we are in conservatorship, receivership or other troubled condition unless either a specific exception applies or the Director of FHFA approves the payments.

In November 2015, the Equity in Government Compensation Act of 2015 was enacted. This law directs the Director of FHFA to suspend the compensation packages approved for 2015 for Fannie Mae's and Freddie Mac's chief executive officers and, in lieu of such packages, to establish the compensation and benefits that were in effect for such officers as of January 1, 2015. The law also provides that these officers' compensation and benefits may not thereafter be increased and these restrictions on chief executive officer compensation are applicable as long as Fannie Mae and Freddie Mac are in conservatorship or receivership. In accordance with this law, on December 1, 2015, the Director of FHFA directed Fannie Mae to decrease the total target annual direct compensation of our chief executive officer to $600,000, effective November 25, 2015.

In April 2016, FHFA reissued its portion of a proposed rule under Section 956 of the Dodd-Frank Act relating to incentive compensation. Section 956 requires that FHFA and other financial regulators issue rules or guidelines: (1) prohibiting incentive-based payment arrangements that the regulators determine encourage inappropriate risks by providing excessive compensation or that could lead to material financial loss; and (2) requiring enhanced disclosure and reporting of incentive-based compensation arrangements. The proposed rule provides that, while we are in conservatorship, FHFA will determine how to best fulfill the requirements and purpose of Section 956, taking into consideration the possible duration of the conservatorship, the nature of our governance, the need to attract and retain management and other talent, limitations on the ability to employ equity-like instruments as incentive-based compensation, and any other circumstances FHFA deems relevant.

For more information on our executive compensation program and regulatory and other legal requirements affecting our executive compensation, see "Executive Compensation."

Fair Lending

The GSE Act requires the Secretary of HUD to assure that the GSEs meet their fair lending obligations. Among other things, HUD periodically reviews and comments on our underwriting and appraisal guidelines to ensure consistency with the Fair Housing Act.

Guaranty Fees

In December 2011, Congress enacted the Temporary Payroll Tax Cut Continuation Act of 2011 ("TCCA") under which, at the direction of FHFA, we increased the guaranty fee on all single-family residential mortgages delivered to us by 10 basis points effective April 1, 2012. The revenue generated by this fee increase is paid to Treasury and helps offset the cost of a two-month extension of the payroll tax cut from January 1, 2012 through February 29, 2012. FHFA and Treasury advised us to remit this fee increase to Treasury with respect to all loans acquired by us on or after April 1, 2012 and before January 1, 2022, and to continue to remit these amounts to Treasury on and after January 1, 2022 with respect to loans we acquired before this date until those loans are paid off or otherwise liquidated.

From time to time, FHFA establishes requirements for our guaranty fee pricing. In July 2016, FHFA advised us that, as a result of its recently completed comprehensive review of our guaranty fee levels for new acquisitions of single-family mortgages, FHFA, in its regulatory capacity, determined that it was necessary to set minimum base guaranty fees for us. FHFA's objective is to ensure that guaranty fee reductions do not result in unsafe and unsound conditions. As a result, FHFA established minimum base guaranty fees that generally apply to our acquisitions of

30-year and 15-year fixed-rate loans in lender swap transactions. These new minimum base guaranty fees were implemented in November 2016.

Housing Goals

We are subject to housing goals established by FHFA in accordance with the GSE Act. The housing goals establish specified requirements for our mortgage acquisitions relating to affordability or location. Our single-family performance is measured against the lower of benchmarks established by FHFA or goals-qualifying originations in the primary mortgage market. Multifamily goals are established as a number of units to be financed. We describe these goals and our 2015 performance against the goals below.

Single-Family Housing Goals

FHFA established the following single-family home purchase and refinance housing goal benchmarks for 2015 through 2017. A home purchase mortgage may be counted toward more than one home purchase benchmark.

- Low-Income Families Home Purchase Benchmark: At least 24% of our acquisitions of single-family owner-occupied purchase money mortgage loans must be affordable to low-income families (defined as income equal to or less than 80% of area median income).
- Very Low-Income Families Home Purchase Benchmark: At least 6% of our acquisitions of single-family owner-occupied purchase money mortgage loans must be affordable to very low-income families (defined as income equal to or less than 50% of area median income).
- Low-Income Areas Home Purchase Goal Benchmark: The benchmark level for our acquisitions of single-family owner-occupied purchase money mortgage loans for families in low-income areas is set annually by notice from FHFA, based on the benchmark level for the low-income areas home purchase subgoal (below), plus an adjustment factor reflecting the additional incremental share of mortgages for moderate-income families (defined as income equal to or less than 100% of area median income) in designated disaster areas. FHFA set the overall low-income areas home purchase benchmark goal at 19% for 2015 and at 17% for 2016.
- Low-Income and High-Minority Areas Home Purchase Subgoal Benchmark: At least 14% of our acquisitions of single-family owner-occupied purchase money mortgage loans must be affordable to families in low-income census tracts or to moderate-income families in high-minority census tracts.
- Low-Income Families Refinancing Benchmark: At least 21% of our acquisitions of single-family owner-occupied refinance mortgage loans must be affordable to low-income families.

Under the rule, not all of our single-family loan acquisitions that fall within these categories may be counted towards our housing goals. Certain types of loan acquisitions are excluded, such as single-family government loans and loans for single-family rental properties.

If we do not meet these benchmarks, we may still meet our goals. Our single-family housing goals performance is measured against both these benchmarks and against our share of goals-qualifying originations in the primary mortgage market after the release of data reported under the Home Mortgage Disclosure Act (“HMDA”), which is typically released each year in the fall. We are in compliance with the housing goals if we meet either the benchmarks or market share measures.

Multifamily Housing Goals

FHFA established the following multifamily goals and subgoals for 2015 through 2017.

- Low-Income Families Goal: At least 300,000 multifamily units per year must be affordable to low-income families.
- Very Low-Income Families Subgoal: At least 60,000 multifamily units per year must be affordable to very low-income families.
- Small Affordable Multifamily Properties Subgoal: The subgoal for purchases of mortgages on small multifamily properties affordable to low-income families increases each year: 6,000 units in 2015; 8,000 units in 2016; and 10,000 units in 2017.

There is no market-based alternative measurement for the multifamily goal or subgoals.

Performance Against Housing Goals

In December 2016, FHFA determined that we met three of our five single-family housing goals and all of our multifamily housing goals for 2015. Table 1 displays our performance for 2015 against our single-family housing benchmarks and market share measures, as well as our multifamily housing goals, as validated by FHFA.

Table 1: 2015 Housing Goals Performance

	2015		
	Result	Benchmark	Single-Family Market Level
Single-family housing goals:[1]			
Low-income families home purchases	23.5 %	24 %	23.6 %
Very low-income families home purchases	5.6	6	5.8
Low-income areas home purchases	20.4	19	19.8
Low-income and high-minority areas home purchases	15.6	14	15.2
Low-income families refinancing	22.1	21	22.5

	2015	
	Result	Goal
	(in units)	
Multifamily housing goals:		
Low-income families	307,510	300,000
Very low-income families	69,078	60,000
Small affordable multifamily properties	6,731	6,000

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(1) Our single-family results and benchmarks are expressed as a percentage of the total number of eligible mortgages acquired during the period.

As shown in Table 1, FHFA determined that we did not meet the single-family low-income families and very-low income families home purchase goals for 2015. FHFA notified us that it determined that achievement of these goals by us was feasible, based on the size and composition of the conventional conforming primary mortgage market for 2015. However, FHFA also determined that, because this was the first year since 2013 that we did not achieve these goals and we missed the goals by narrow amounts, FHFA will not require us to submit a formal housing plan under the GSE Act.

We will report our performance with respect to the 2016 housing goals in March 2017. FHFA will issue a final determination on our 2016 performance after the release of data reported under HMDA later this year.

As described in "Risk Factors," actions we may take to meet our housing goals and duty to serve requirements described below may increase our credit losses and credit-related expense.

Duty to Serve Underserved Markets

The GSE Act requires that we serve very low-, low-, and moderate-income families in three specified underserved markets: manufactured housing, affordable housing preservation and rural areas. In December 2016, FHFA published a final rule implementing our duty to serve these underserved markets. Under the rule, we are required to adopt an underserved markets plan for each underserved market covering a three-year period that sets forth the activities and objectives we will undertake to meet our duty to serve that market. The development of these plans is subject to a public notice and comment process, and the plans will require FHFA's "non-objection" before becoming final. Under the current timetable set forth by FHFA, we anticipate our first underserved markets plans will become effective in 2018.

The types of activities that are eligible for duty to serve credit in each underserved market are summarized below:

- Manufactured housing market. For the manufactured housing market, duty to serve credit will be available for eligible activities relating to manufactured homes (whether titled as real property or personal property (known as chattel)) and loans for specified categories of manufactured housing communities.

- Affordable housing preservation market. For the affordable housing preservation market, duty to serve credit will be available for eligible activities relating to preserving the affordability of housing for renters and buyers under specified programs enumerated in the GSE Act and other comparable affordable housing programs administered by state and local governments, subject to FHFA approval. Duty to serve credit will also be available for activities related to small (5 to 50 units) multifamily rental properties, energy efficiency improvements on existing multifamily rental and single-family first lien properties, certain shared equity homeownership programs, the purchase or rehabilitation of certain distressed properties, and activities under HUD's Choice Neighborhoods Initiative and Rental Assistance Demonstration programs.
- Rural housing market. For the rural housing market, duty to serve credit will be available for eligible activities related to housing in rural areas, including activities related to housing in high-needs rural regions and for high-needs rural populations.

FHFA could also approve duty to serve credit for additional activities identified in our underserved markets plans. Qualifying activities that promote residential economic diversity in one or more underserved markets could receive extra duty to serve credit. As provided under the rule, FHFA posted its proposed evaluation guidance in January 2017. The guidance communicates FHFA's expectations regarding the development of the underserved markets plans and describes the annual process by which FHFA will evaluate our achievements under the underserved markets plans. Our performance results will be reported to Congress. If FHFA determines that we failed to meet the requirements of an underserved markets plan, it may result in the imposition of a housing plan.

Swap Transactions; Minimum Capital and Margin Requirements

The Dodd-Frank Act includes provisions requiring additional regulation of swap transactions. Because we are a user of interest rate swaps, the Dodd-Frank Act requires us, among other items, to submit new swap transactions for clearing to a derivatives clearing organization. Additionally, in October 2015, an inter-agency body of regulators issued a final rule under the Dodd-Frank Act governing margin and capital requirements applicable to entities that are subject to their oversight. The first phase of this rule becomes applicable on March 1, 2017 and requires us to collect and provide collateral in excess of the amounts we have historically collected or provided relative to our level of activity, and changes the types of collateral that can be posted. The second phase of this rule is expected to become applicable on September 1, 2020 and will require additional collateral from us and our counterparties, which will increase the costs associated with hedging our retained mortgage portfolio.

Ability to Repay

The Dodd-Frank Act amended the Truth in Lending Act ("TILA") to require creditors to determine that borrowers have a "reasonable ability to repay" most mortgage loans prior to making such loans. In 2013, the Consumer Financial Protection Bureau (the "CFPB") issued a final rule under Regulation Z that, among others things, requires creditors to determine a borrower's "ability to repay" a mortgage loan. If a creditor fails to comply, a borrower may be able to offset a portion of the amount owed in a foreclosure proceeding or recoup monetary damages. The rule offers several options for complying with the ability to repay requirement, including making loans that meet certain terms and characteristics (referred to as "qualified mortgages"), which may provide creditors and their assignees with special protection from liability. Generally, a loan will be a qualified mortgage under the rule if, among other things, (1) the points and fees paid in connection with the loan do not exceed 3% of the total loan amount, (2) the loan term does not exceed 30 years, (3) the loan is fully amortizing with no negative amortization, interest-only or balloon features and (4) the debt-to-income ratio on the loan does not exceed 43% at origination. The CFPB also defined a special class of conventional mortgage loans that will be qualified mortgages if they (1) meet the points and fees, term and amortization requirements of qualified mortgages generally and (2) are eligible for sale to Fannie Mae or Freddie Mac. This class of qualified mortgages expires on the earlier of January 10, 2021 or when the GSEs cease to be in conservatorship or receivership.

Although TILA does not apply to us, as we do not originate loans in the primary mortgage market, these rules apply to the lenders from which we acquire single-family mortgage loans. In May 2013, FHFA directed Fannie Mae and Freddie Mac to limit our acquisition of single-family loans to those loans that meet the points and fees, term and amortization requirements for qualified mortgages, or to loans that are exempt from the ability-to-repay rule, such as loans made to investors. This limitation applies to loans with application dates on or after January 10, 2014, the effective date of the ability-to-repay rule.

Risk Retention

The Dodd-Frank Act requires financial regulators to jointly prescribe regulations requiring securitizers to retain a portion of the credit risk in assets transferred, sold or conveyed through the issuance of asset-backed securities, with certain exceptions. In October 2014, an inter-agency body of regulators issued a final rule implementing this credit risk retention requirement. The final rule generally requires securitizers to retain at least 5% of the credit risk of the assets they securitize. The rule offers several compliance options, one of which is to have either Fannie Mae or Freddie Mac (so long as they are in conservatorship or receivership with capital support from the United States) securitize and fully guarantee the assets, in which case no further retention of credit risk is required. In addition, securities backed solely by mortgage loans meeting the definition of a “qualified residential mortgage” are exempt from the risk retention requirements of the rule. The rule defines “qualified residential mortgage” to have the same meaning as the term “qualified mortgage” as defined by the CFPB in connection with its ability-to-repay rule under Regulation Z discussed above. The final risk retention rule became effective on December 24, 2015 for single-family mortgage loans and on December 24, 2016 for multifamily mortgage loans.

TILA-RESPA Integrated Disclosure (“TRID”)

The Dodd-Frank Act required the CFPB to streamline and simplify the disclosures required under TILA and the Real Estate Settlement Procedures Act (“RESPA”). In October 2015, the CFPB’s final rule implementing these changes went into effect. Although this rule applies to mortgage originators and is not directly applicable to us, we could face potential liability for certain errors in the new required disclosures in connection with the loans we acquire from lenders. At this time, it is not yet clear what sorts of errors will give rise to liability. Also in October 2015, FHFA directed us and Freddie Mac not to conduct post-purchase loan file reviews for technical compliance with TRID. Consistent with FHFA’s directive, we currently do not intend to exercise our contractual remedies, including requiring the lender to repurchase the loan, for noncompliance with the newly applicable provisions of TRID, except in two limited circumstances: if the required form is not used; or if a particular practice would impair enforcement of the note or mortgage or would result in assignee liability, and a court of law, regulator or other authoritative body has determined that such practice violates TRID.

Receivership

Under the GSE Act, FHFA must place us into receivership if the Director of FHFA makes a written determination that our assets are less than our obligations (that is, we have a net worth deficit) or if we have not been paying our debts as they become due, in either case, for a period of 60 days. FHFA has notified us that the measurement period for any mandatory receivership determination with respect to our assets and liabilities would commence no earlier than the SEC public filing deadline for our quarterly or annual financial statements and would continue for 60 calendar days thereafter. FHFA has advised us that if, during that 60-day period, we receive funds from Treasury in an amount at least equal to the deficiency amount under the senior preferred stock purchase agreement, the Director of FHFA will not make a mandatory receivership determination.

In addition, we could be put into receivership at the discretion of the Director of FHFA at any time for other reasons set forth in the GSE Act. The statutory grounds for discretionary appointment of a receiver include: a substantial dissipation of assets or earnings due to unsafe or unsound practices; the existence of an unsafe or unsound condition to transact business; an inability to meet our obligations in the ordinary course of business; a weakening of our condition due to unsafe or unsound practices or conditions; critical undercapitalization; undercapitalization and no reasonable prospect of becoming adequately capitalized; the likelihood of losses that will deplete substantially all of our capital; or by consent.

The appointment of FHFA as receiver would immediately terminate the conservatorship. In the event of a receivership, the GSE Act requires FHFA, as the receiver, to organize a limited-life regulated entity with respect to Fannie Mae. Among other requirements, the GSE Act provides that this limited-life regulated entity:

- would succeed to Fannie Mae’s charter and thereafter operate in accordance with and subject to such charter;
- would assume, acquire or succeed to our assets and liabilities to the extent that such assets and liabilities are transferred by FHFA to the entity; and
- would not be permitted to assume, acquire or succeed to any of our obligations to shareholders.

Placement into receivership would likely have a material adverse effect on holders of our common stock and preferred stock, and could have a material adverse effect on holders of our debt securities and Fannie Mae MBS.

Should we be placed into receivership, different assumptions would be required to determine the carrying value of our assets, which could lead to substantially different financial results. For more information on the risks to our business relating to receivership and uncertainties regarding the future of our business, see "Risk Factors."

Our Customers

Our principal customers are lenders that operate within the primary mortgage market where mortgage loans are originated and funds are loaned to borrowers. Our customers include mortgage banking companies, savings and loan associations, savings banks, commercial banks, credit unions, community banks, specialty servicers, insurance companies, and state and local housing finance agencies. Lenders originating mortgages in the primary mortgage market often sell them in the secondary mortgage market in the form of whole loans or in the form of mortgage-related securities.

We have a diversified funding base of domestic and international investors. Purchasers of Fannie Mae MBS or Fannie Mae debt securities include fund managers, commercial banks, pension funds, insurance companies, Treasury, foreign central banks, corporations, state and local governments, and other municipal authorities.

During 2016, approximately 1,200 lenders delivered single-family mortgage loans to us. We acquire a significant portion of our single-family mortgage loans from several large mortgage lenders. During 2016, our top five lender customers, in the aggregate, accounted for approximately 30% of our single-family business volume, compared with approximately 29% in 2015. Wells Fargo Bank, N.A., together with its affiliates, was the only customer that accounted for 10% or more of our single-family business volume in 2016, with approximately 14%.

Competition

We compete to acquire mortgage assets in the secondary market. We also compete for the issuance of mortgage-related securities to investors. Competition in these areas is affected by many factors, including the number of residential mortgage loans offered for sale in the secondary market by loan originators and other market participants, the nature of the residential mortgage loans offered for sale (for example, whether the loans represent refinancings), the current demand for mortgage assets from mortgage investors, the interest rate risk investors are willing to assume and the yields they will require as a result, and the credit risk and prices associated with available mortgage investments.

Competition to acquire mortgage assets is significantly affected by both our and our competitors' pricing and eligibility standards, as well as investor demand for our and our competitors' mortgage-related securities. Our competitive environment also may be affected by many other factors, such as new legislation or regulations. See "Legislation and Regulation" and "Risk Factors" for information on matters that could affect our business and competitive environment.

Our competitors for the acquisition of single-family mortgage assets are financial institutions and government agencies that manage residential mortgage credit risk or invest in residential mortgage loans, including Freddie Mac, FHA, the VA, Ginnie Mae (which primarily guarantees securities backed by FHA-insured loans and VA-guaranteed loans), the FHLBs, U.S. banks and thrifts, securities dealers, insurance companies, pension funds, investment funds and other mortgage investors. Our primary competitors for the issuance of single-family mortgage-related securities are Freddie Mac and Ginnie Mae, as many private market competitors dramatically reduced or ceased their activities in the single-family secondary mortgage market following the 2008 housing crisis. For the acquisition of multifamily mortgage assets and the issuance of multifamily mortgage-related securities, we primarily compete with Freddie Mac, life insurers, U.S. banks and thrifts, other institutional investors, Ginnie Mae and private-label issuers of commercial mortgage-backed securities. See "Executive Summary—2016 Market Share" for a discussion of our market share compared with that of our competitors in 2016.

We also compete for low-cost debt funding with institutions that hold mortgage portfolios, including Freddie Mac and the FHLBs.

Employees

As of January 31, 2017, we employed approximately 7,000 personnel, including full-time and part-time employees, term employees and employees on leave.

Where You Can Find Additional Information

We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all other SEC reports and amendments to those reports as soon as reasonably practicable after we electronically file the material with, or furnish it to, the SEC. Our website address is www.fanniemae.com. Materials that we file with the SEC are also available from the SEC's website, www.sec.gov. You may also request copies of any filing from us, at no cost, by calling the Fannie Mae Fixed-Income Securities Helpline at 1-800-2FANNIE (1-800-232-6643), Option 2, or by writing to Fannie Mae, Attention: Fixed-Income Securities, 3900 Wisconsin Avenue, NW, Area 2H-3N, Washington, DC 20016.

All references in this report to our website addresses or the website address of the SEC are provided solely for your information. Information appearing on our website or on the SEC's website is not incorporated into this annual report on Form 10-K.

Forward-Looking Statements

This report includes statements that constitute forward-looking statements within the meaning of Section 21E of the Exchange Act. In addition, our senior management may from time to time make forward-looking statements orally to analysts, investors, the news media and others. Forward-looking statements often include words such as "expect," "anticipate," "intend," "plan," "believe," "seek," "estimate," "forecast," "project," "would," "should," "could," "likely," "may, words. Examples of forward-looking statements in this report include, but are not limited to, statements relating to our expectations regarding the following matters:

- our profitability and financial results, and the factors that will affect our profitability and financial results;
- our revenues and the factors that will affect our revenues;
- our business plans and strategies and the impact of such plans and strategies;
- our capital reserves and our dividend payments to Treasury;
- our payments to HUD and Treasury funds under the GSE Act;
- the consequences of our conservatorship and possible receivership;
- the impact of legislation, regulation and accounting guidance on our business or financial results, including the impact of corporate income tax legislation and impairment accounting guidance;
- housing and mortgage market conditions, including home price appreciation, and the impact of such conditions on our financial results;
- the risks to our business;
- our credit losses and loss reserves;
- our serious delinquency rates and foreclosures;
- our engagement in credit risk transfer transactions and the effects of those transactions;
- factors that will affect or mitigate our credit risk exposure;
- the performance of the loans in our book of business and factors that will affect such performance;
- our single-family loan acquisitions and the credit risk profile of such acquisitions; and
- factors that will affect our liquidity and ability to meet our debt obligations and factors relating to our liquidity contingency plans.

Forward-looking statements reflect our management's expectations, forecasts or predictions of future conditions, events or results based on various assumptions and management's estimates of trends and economic factors in the markets in which we are active, as well as our business plans. They are not guarantees of future performance. By their nature, forward-looking statements are subject to risks and uncertainties. Our actual results and financial condition may differ, possibly materially, from the anticipated results and financial condition indicated in these forward-looking statements.

There are a number of factors that could cause actual conditions, events or results to differ materially from those described in the forward-looking statements contained in this report, including, but not limited to, the following: the uncertainty of our future; future legislative and regulatory requirements or changes affecting us, such as the enactment of housing finance reform legislation or corporate income tax reform legislation; actions by FHFA, Treasury, HUD or other regulators that affect our business; the timing and level of, as well as regional variation in, home price changes; changes in interest rates, including negative interest rates; changes in unemployment rates and other macroeconomic and housing market variables; our future guaranty fee pricing and the impact of that pricing on our competitive environment and guaranty fee revenues; the size, composition and quality of our guaranty book of business and retained mortgage portfolio; our market share; the life of the loans in our guaranty book of business; challenges we face in retaining and hiring qualified executives and other employees; our future serious delinquency rates; the deteriorated credit performance of many loans in our guaranty book of business; the conservatorship and its effect on our business; the investment by Treasury and its effect on our business; adverse effects from activities we undertake to support the mortgage market and help borrowers; actions we may be required to take by FHFA, in its role as our conservator or as our regulator, such as changes in the type of business we do or implementation of a single security for Fannie Mae and Freddie Mac; limitations on our business imposed by FHFA, in its role as our conservator or as our regulator; our future objectives and activities in support of those objectives, including actions we may take to reach additional underserved creditworthy borrowers; a decrease in our credit ratings; limitations on our ability to access the debt capital markets; disruptions in the housing and credit markets; significant changes in modification and foreclosure activity; the volume and pace of future nonperforming loan sales and their impact on our results and serious delinquency rates; changes in borrower behavior; the effectiveness of our loss mitigation strategies, management of our REO inventory and pursuit of contractual remedies; defaults by one or more institutional counterparties; resolution or settlement agreements we may enter into with our counterparties; our need to rely on third parties to fully achieve some of our corporate objectives; our reliance on mortgage servicers; changes in GAAP; guidance by the Financial Accounting Standards Board (“FASB”); future changes to our accounting policies; changes in the fair value of our assets and liabilities; operational control weaknesses; our reliance on models; future updates to our models, including the assumptions used by these models; the level and volatility of interest rates and credit spreads; changes in the fiscal and monetary policies of the Federal Reserve, including any change in the Federal Reserve’s policy towards the reinvestment of principal payments of mortgage-backed securities or any future sales of such securities; changes in the structure and regulation of the financial services industry; credit availability; global political risks; natural disasters, environmental disasters, terrorist attacks, pandemics or other major disruptive events; information security breaches or threats; and those factors described in “Risk Factors.”

Readers are cautioned to place forward-looking statements in this report or that we make from time to time into proper context by carefully considering the factors discussed in this report. These forward-looking statements are representative only as of the date they are made, and we undertake no obligation to update any forward-looking statement as a result of new information, future events or otherwise, except as required under the federal securities laws.

Item 1A. Risk Factors

Refer to “MD&A—Risk Management” and “MD&A—Business Segments” for more detailed descriptions of the primary risks to our business and how we seek to manage those risks.

The risks we face could materially adversely affect our business, results of operations, financial condition, liquidity and net worth, and could cause our actual results to differ materially from our past results or the results contemplated by forward-looking statements contained in this report. However, these are not the only risks we face. In addition to the risks we discuss below, we face risks and uncertainties not currently known to us or that we currently believe are immaterial.

Risk
Factors

Risks Relating To Our Business

The future of our company is uncertain.
There continues to be significant uncertainty regarding the future of our company, including how long the company will continue to exist in its current form, the extent of our role in the market, how long we will be in conservatorship, what form we will have and what ownership interest, if any, our current common and preferred stockholders will hold in us after the conservatorship is terminated, and whether we will continue to exist following conservatorship. The conservatorship is indefinite in duration and the timing, conditions and likelihood of our emerging from conservatorship are uncertain. Our conservatorship could terminate through a receivership. Termination of the conservatorship, other than in connection with a receivership, requires Treasury's consent under the senior preferred stock purchase agreement.
The previous Administration endorsed the wind down of Fannie Mae and Freddie Mac through a responsible transition and the enactment of comprehensive housing finance reform legislation. The current Administration has not articulated a formal position on housing finance reform or the future of the GSEs; however, the Treasury Secretary indicated in his confirmation hearing that he is focused on housing finance reform and a solution to the current status of Fannie Mae and Freddie Mac.
Last year, Congress continued to consider legislation that could materially affect our business if enacted. We expect that Congress will continue to consider legislation that could result in significant changes in our structure and role in the future, including proposals that would result in Fannie Mae's liquidation or dissolution. Congress or FHFA may also consider legislation or regulation aimed at increasing the competition we face, reducing our market share, expanding our obligations to provide funds to Treasury or constraining our business operations. We cannot predict the prospects for the enactment, timing or final content of housing finance reform legislation or other legislation related to our activities.
We may not have sufficient capital reserves to avoid a net worth deficit if we experience a comprehensive loss in a future quarter. If we have a net worth deficit in a future quarter, we will be required to draw funds from Treasury in order to avoid being placed into receivership.
As a result of the dividend provisions of the senior preferred stock and quarterly directives from our conservator, we are obligated to pay Treasury each quarter any dividends declared consisting of the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds an applicable capital reserve amount, which is $600 million for each quarter of 2017 and decreases to zero in 2018. Because we are permitted to retain only $600 million in capital reserves through 2017, we may not have sufficient reserves to avoid a net worth deficit if we experience a comprehensive loss in a future quarter. In addition, beginning in 2018, we are not permitted to retain any capital reserves against losses in subsequent quarters; therefore, if we have a comprehensive loss for a quarter we will also have a net worth deficit for that quarter.
We have experienced and expect to continue to experience volatility in our financial results from period to period due to a number of factors, particularly changes in market conditions that result in fluctuations in the estimated fair value of the financial instruments, such as derivatives and certain securities, that we mark to market through our earnings. Our credit-related income or expense also can vary substantially from period to period based on a number of factors such as changes in actual and expected home prices, fluctuations in interest rates, borrower payment behavior, the types and volume of our loss mitigation activities, the volume of foreclosures completed, and redesignations of loans from HFI to HFS. Accordingly, although we expect to remain profitable on an annual basis for the foreseeable future, the potential volatility in our financial results, which may be significant from quarter to quarter, could result in a net worth deficit in a future quarter.
In addition, other factors such as legislative actions or changes in accounting standards could result in a net worth deficit in a future quarter. For example:
•

The current Administration proposes reducing the U.S. corporate income tax rate. Under applicable accounting standards, a significant reduction in the U.S. corporate income tax rate would require that we record a substantial reduction in the value of our deferred tax assets in the quarter in which the legislation is enacted. Thus, if legislation significantly lowering the U.S. corporate income tax rate is enacted, we expect to incur a significant net loss and net worth deficit for the quarter in which the legislation is enacted and we could potentially incur a net loss for that year.

• In June 2016, the FASB issued guidance that changes the impairment model for most financial assets and certain other instruments, which will become effective January 1, 2020 with early adoption permitted on January 1, 2019. We are continuing to evaluate the impact of this guidance on our consolidated financial statements, including the timing of adoption. The adoption of this guidance will decrease, perhaps substantially, our retained earnings and increase our allowance for loan losses, which could result in a net worth deficit for the quarter in which we adopt the guidance.

For any quarter for which we have a net worth deficit, we will be required to draw funds from Treasury under the senior preferred stock purchase agreement in order to avoid being placed into receivership. As of the date of this filing, the maximum amount of remaining funding under the agreement is $117.6 billion. If we were to draw additional funds from Treasury under the agreement in a future period, the amount of remaining funding under the agreement would be reduced by the amount of our draw. Dividend payments we make to Treasury do not restore or increase the amount of funding available to us under the agreement. Accordingly, if we experience multiple quarters of net worth deficits, the amount of remaining funding available under the senior preferred stock purchase agreement could be significantly reduced from its current level.

Our regulator is authorized or required to place us into receivership under specified conditions, which would result in the liquidation of our assets. Amounts recovered from the liquidation may not be sufficient to repay the liquidation preference of any series of our preferred stock or to provide any proceeds to common shareholders.

FHFA is required to place us into receivership if the Director of FHFA makes a written determination that our assets are less than our obligations for a period of 60 days after the filing deadline for our Form 10-K or Form 10-Q with the SEC. Although Treasury committed to providing us funds in accordance with the terms of the senior preferred stock purchase agreement, if we need funding from Treasury to avoid triggering FHFA's obligation, Treasury may not be able to provide sufficient funds to us within the required 60 days if it has exhausted its borrowing authority, if there is a government shutdown, or if the funding we need exceeds the amount available to us under the agreement. In addition, we could be put into receivership at the discretion of the Director of FHFA at any time for other reasons set forth in the GSE Act, including if we are critically undercapitalized or if we are undercapitalized and have no reasonable prospect of becoming adequately capitalized.

A receivership would terminate the conservatorship. In addition to the powers FHFA has as our conservator, the appointment of FHFA as our receiver would terminate all rights and claims that our shareholders and creditors may have against our assets or under our charter arising from their status as shareholders or creditors, except for their right to payment, resolution or other satisfaction of their claims as permitted under the GSE Act. If we are placed into receivership and do not or cannot fulfill our guaranty to the holders of our Fannie Mae MBS, there may be significant delays of any payments to our MBS holders, and the MBS holders could become unsecured creditors of ours with respect to claims made under our guaranty to the extent the mortgage collateral underlying the Fannie Mae MBS is insufficient to satisfy the claims of the MBS holders.

In the event of a liquidation of our assets, only after payment of the administrative expenses of the receiver and the immediately preceding conservator, the secured and unsecured claims against the company (including repaying all outstanding debt obligations), and the liquidation preference of the senior preferred stock, would any liquidation proceeds be available to repay the liquidation preference on any other series of preferred stock. Finally, only after the liquidation preference on all series of preferred stock is repaid would any liquidation proceeds be available for distribution to the holders of our common stock. We believe that in the event of a liquidation of our assets it is unlikely that there would be sufficient proceeds to make any distribution to holders of our preferred stock or common stock, other than possibly to Treasury as a holder of our senior preferred stock.

Our business and results of operations may be materially adversely affected if we are unable to retain and recruit well-qualified senior executives and other employees. The conservatorship, the uncertainty of our future, limitations on our executive and employee compensation, and negative publicity concerning the GSEs put us at a disadvantage compared to many other companies in attracting and retaining these employees.

Our business processes are highly dependent on the talents and efforts of our senior executives and other employees. The conservatorship, the uncertainty of our future, limitations on executive and employee compensation, and negative publicity concerning the GSEs have had and are likely to continue to have an adverse effect on our ability to retain and recruit well-qualified executives and other employees. Our business is highly complex and we are currently undertaking critical work to help build a sustainable housing finance system;

therefore, continuity of our current management team under the leadership of our Chief Executive Officer is important. Turnover in key management positions and challenges in integrating new management could harm our ability to manage our business effectively and successfully finalize the implementation of our and FHFA's current strategic initiatives, and ultimately could adversely affect our financial performance.

Actions taken by Congress, FHFA and Treasury to date, or that may be taken by them or other government agencies in the future, have had, and may continue to have, an adverse effect on the retention and recruitment of senior executives and other employees. We are subject to significant restrictions on the amount and type of compensation we may pay our executives and other employees under conservatorship. In November 2015, the Equity in Government Compensation Act of 2015 was enacted. This law sets the annual direct compensation of our Chief Executive Officer at $600,000 while we are in conservatorship or receivership. We are also subject to the STOCK Act, which was enacted in April 2012 and includes a provision that prohibits our senior executives from receiving bonuses during any period of conservatorship on or after the date of enactment of the law. In addition, we are unable to offer equity-based compensation. As a result of these restrictions, we have not been able to incent and reward excellent performance with compensation structures that provide upside potential to our executives, which places us at a disadvantage compared to many other companies in attracting and retaining executives. In addition, the uncertainty of potential congressional action with respect to housing finance reform, which may result in the wind-down of the company, also negatively affects our ability to retain and recruit executives and other employees.

In many cases, the amount of compensation we pay our senior executives is significantly less than the compensation of executives in similar roles at many companies in our comparator group. Limitations on our ability to increase executive compensation to market levels for the foreseeable future puts us at greater risk of attrition, and also hampers our ability to recruit new executives. Moreover, limitations on our ability to offer market-based compensation makes succession planning difficult. In particular, the limit on the annual direct compensation of our Chief Executive Officer to $600,000 significantly elevates our risk that we will not be able to retain our Chief Executive Officer and negatively affects our succession planning and our ability to attract qualified candidates for this critical role.

We face competition from within the financial services industry and from businesses outside of the financial services industry for qualified executives and other employees. Additionally, with an improving economy, attractive opportunities have become available to our executives and other employees. Our competitors for talent are generally not subject to the same limitations on executive compensation. The constraints on our executive compensation could adversely affect our ability to attract and retain qualified candidates.

If we are unable to retain, promote and attract executives and other employees with the necessary skills and talent, we would face increased risks for operational failures. If there were several high-level departures at approximately the same time, our ability to conduct our business would likely be materially adversely affected, which could have a material adverse effect on our results of operations and financial condition.

Our business activities are significantly affected by the conservatorship and the senior preferred stock purchase agreement.

We are currently under the control of our conservator, FHFA, and we do not know when or how the conservatorship will terminate. As conservator, FHFA can direct us to enter into contracts or enter into contracts on our behalf, and generally has the power to transfer or sell any of our assets or liabilities. In addition, our directors do not have fiduciary duties to any person or entity except to the conservator. Accordingly, our directors are not obligated to consider the interests of the company, the holders of our equity or debt securities, or the holders of Fannie Mae MBS in making or approving a decision unless specifically directed to do so by the conservator.

We are subject to significant restrictions on our business activities during conservatorship. We may be prevented by our conservator from engaging in business activities or transactions that we believe would benefit our business and financial results. For example, because FHFA must approve changes to the national loan level price adjustments we charge and can direct us to make other changes to our guaranty fee pricing, our ability to address changing market conditions, pursue certain strategic objectives, or manage the mix of loans lenders choose to deliver to us is constrained. We publish national risk-based loan level price adjustment grids that specify the additional cash fees we charge at the time we acquire a loan based on the credit characteristics of the loan. These fees allow us to price appropriately for the credit risk we assume in providing our guaranty on the loans. We do not have the ability to implement changes to these pricing grids without the approval of FHFA. If the mix of our single-family loan acquisitions changes, and FHFA does not approve requested changes to our pricing grids in response to these changes, it could adversely affect our financial results and condition. In addition, if FHFA directs us to change our pricing in any manner—including increases or decreases in our base guaranty fees or our loan-level price adjustments—it could result in a decrease in our guaranty fee revenues in future periods, a decrease in our single-family business volume or a negative impact on the credit risk profile of our new single-family acquisitions, any of which could adversely affect our financial results and condition.

Because we are under the control of our conservator, our business objectives may not be consistent with the investment objectives of our investors. We may be required by our conservator to engage in activities that are operationally difficult, costly to implement or unprofitable, or that may adversely affect our financial results or the credit risk profile of our book of business. FHFA has changed our business objectives significantly since we entered conservatorship, and could make additional changes at any time. Actions we take to meet FHFA's strategic goals and objectives for our conservatorship could adversely affect our financial results. For example, FHFA's conservatorship scorecards in recent years have included objectives relating to the development of a single security for Fannie Mae and Freddie Mac. As the implementation date of the single security approaches, some Fannie Mae MBS and comparable Freddie Mac PCs have traded closer to or at parity. If our market share declines in the future due to this trend or other factors, it could adversely affect our financial results. In addition, FHFA's conservatorship scorecards have included objectives relating to the sale of nonperforming loans in our book of business. These transactions could result in the sale of mortgage loans we hold at prices below the levels recorded in our financial statements or the sale of loans that may be more financially advantageous for us to hold. Moreover, we are devoting significant resources to meeting FHFA's goals for our conservatorship and expect to continue to do so.

The senior preferred stock purchase agreement with Treasury includes a number of covenants that significantly restrict our business activities. We cannot, without the prior written consent of Treasury: pay dividends (except on the senior preferred stock); sell, issue, purchase or redeem Fannie Mae equity securities; sell, transfer, lease or otherwise dispose of assets in specified situations; engage in transactions with affiliates other than on arm's-length terms or in the ordinary course of business; issue subordinated debt; or incur indebtedness that would result in our aggregate indebtedness exceeding 120% of the amount of mortgage assets we are allowed to own under the agreement. In deciding whether to consent to any request for approval it receives from us under the agreement, Treasury has the right to withhold its consent for any reason and is not required by the agreement to consider any particular factors, including whether or not management believes that the transaction would benefit the company. Pursuant to the senior preferred stock purchase agreement, the maximum allowable amount of mortgage assets we were permitted to own as of December 31, 2016 was $339.3 billion, and on each December 31 thereafter, our mortgage assets may not exceed 85% of the maximum allowable amount that we were permitted to own as of December 31 of the immediately preceding calendar year until the amount of our mortgage assets reaches $250 billion. In addition, FHFA has requested that we further cap our mortgage assets each year at 90% of the annual limit under our senior preferred stock purchase agreement with Treasury.

Actions taken by the conservator and the restrictions set forth in the senior preferred stock purchase agreement could adversely affect our business, results of operations, financial condition, liquidity and net worth.

A number of lawsuits have been filed against the U.S. government relating to the senior preferred stock purchase agreement and the conservatorship. See "Note 18, Commitments and Contingencies" and "Legal Proceedings" for a description of these lawsuits. We cannot predict the course or the outcome of these lawsuits, or the actions the U.S. government (including Treasury or FHFA) may take in response to any ruling or finding in any of these lawsuits. Accordingly, we cannot predict what impact, if any, these lawsuits will have on our business.

The conservatorship and agreements with Treasury have had, and will continue to have, a material adverse effect on our common and preferred shareholders.

We do not know when or how the conservatorship will terminate. Moreover, even if we are released from conservatorship, we remain subject to the terms of the senior preferred stock purchase agreement, senior preferred stock and warrant, which can only be canceled or modified with the consent of Treasury. The conservatorship and agreements with Treasury have had, and will continue to have, material adverse effects on our common and preferred shareholders, including the following:

No voting rights during conservatorship. The rights and powers of our shareholders are suspended during conservatorship. During conservatorship, our common shareholders do not have the ability to elect directors or to vote on other matters unless the conservator delegates this authority to them.

No dividends to common or preferred shareholders, other than to Treasury. Our conservator announced in September 2008 that we would not pay any dividends on the common stock or on any series of preferred stock, other than the senior preferred stock, while we are in conservatorship. In addition, under the terms of the senior preferred stock purchase agreement, dividends may not be paid to common or preferred shareholders (other than on the senior preferred stock) without the prior written consent of Treasury, regardless of whether we are in conservatorship.

Our profits are distributed to Treasury. As described in a risk factor above, pursuant to the dividend provisions of the senior preferred stock and quarterly directives from our conservator, we are obligated to pay Treasury each quarter any dividends declared consisting of the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds an applicable capital reserve amount, which will decrease to zero in 2018. As a result, our net income is not available to common shareholders or preferred shareholders other than Treasury as holder of the senior preferred stock.

Liquidation preference of senior preferred stock is high and could increase. The senior preferred stock ranks prior to our common stock and all other series of our preferred stock, as well as any capital stock we issue in the future, as to both dividends and distributions upon liquidation. Accordingly, if we are liquidated, the senior preferred stock is entitled to its then-current liquidation preference, plus any accrued but unpaid dividends, before any distribution is made to the holders of our common stock or other preferred stock. The liquidation preference on the senior preferred stock is currently $117.1 billion and would increase if we draw on Treasury's funding commitment in any future quarters or if we do not pay dividends owed on the senior preferred stock. If we are liquidated, we believe it is unlikely that there would be sufficient funds remaining after payment of amounts to our creditors and to Treasury as holder of the senior preferred stock to make any distribution to holders of our common stock and other preferred stock.

Exercise of the Treasury warrant would substantially dilute investment of current shareholders. If Treasury exercises its warrant to purchase shares of our common stock equal to 79.9% of the total number of shares of our common stock outstanding on a fully diluted basis, the ownership interest in the company of our then-existing common shareholders will be substantially diluted, and we would thereafter have a controlling shareholder.

No longer managed for the benefit of shareholders. Because we are in conservatorship, we are no longer managed with a strategy to maximize shareholder returns.

For additional description of the conservatorship and our agreements with Treasury, see "Business—Conservatorship and Treasury Agreements."

We may incur significant credit losses and credit-related expenses on the loans in our mortgage credit book of business, which could materially adversely affect our earnings, financial condition and net worth.

We are exposed to a significant amount of mortgage credit risk on our $3.1 trillion mortgage credit book of business, which includes mortgage assets that back our guaranteed Fannie Mae MBS, mortgage assets in our retained mortgage portfolio and credit enhancements we provide. Borrowers of mortgage loans that we own or guaranty may fail to make required payments of principal and interest on their mortgage loans, exposing us to the risk of credit losses and credit-related expenses.

Although we strengthened our underwriting and eligibility standards in late 2008 and 2009, we continue to have loans in our book of business that were originated under our prior standards. As of December 31, 2016, 12% of our single-family conventional guaranty book of business consisted of loans acquired prior to 2009 and another 16% consisted of Refi Plus loans, which represent refinancings of loans that were originated prior to June 2009. Moreover, some of the loans we acquired prior to 2009 that remain in our single-family book of business as of December 31, 2016 have certain characteristics that expose us to greater credit risk than other types of mortgage loans, such as Alt-A loans (3% of our single-family conventional guaranty book), interest-only loans (2% of our single-family conventional guaranty book) and loans with FICO credit scores at origination of less than 620 (2% of our single-family conventional guaranty book). In addition, 16% of our single-family conventional guaranty book of business as of December 31, 2016 consisted of loans with original LTV ratios greater than 90%, which may pose a higher credit risk than loans with lower LTV ratios. We present detailed information about the risk characteristics of our single-family conventional guaranty book of business in "MD&A—Business Segments—Single-Family Business—Single-Family Mortgage

Credit Risk Management," and we present information on our 2016 credit-related expenses and credit losses in "MD&A—Consolidated Results of Operations—Credit-Related Income (Expense)." The credit performance of loans in our book of business could deteriorate in the future, particularly if we experience national or regional declines in home prices, weakening economic conditions or high unemployment, resulting in higher credit losses and credit-related expenses. Increases in our credit-related expenses would reduce our earnings and adversely affect our financial condition and net worth.

While we use certain credit enhancements to mitigate some of our potential future credit losses, these credit enhancements may provide less protection than we expect for a number of reasons. Some of the credit enhancements we use, such as mortgage insurance and credit insurance risk transfer transactions, are subject to the risk that the counterparties may not meet their obligations to us. Our credit risk transfer transactions have limited terms (typically 10 or 12.5 years), after which they provide limited or no further credit protection on the covered loans. Due to differences in accounting, there also could be a significant lag between the time when we recognize a provision for credit losses and when we recognize the related recovery from our CAS transactions. While a credit expense on a loan in a reference pool for a CAS transaction is recorded when it is probable that we have incurred a loss, for our CAS issued beginning in 2016, a recovery is recorded when an actual loss event occurs. In addition, it is uncertain if there will be adequate demand for our credit risk transfer transactions over the long term to meet our goals for these transactions. Moreover, our credit risk transfer transactions are not designed to shield us from all losses because we retain a portion of the risk of future losses on loans covered by these transactions, including all or a portion of the first loss risk in most transactions.

The processing of foreclosures of single-family loans continues to be slow in some states, which has negatively affected our foreclosure timelines and our single-family serious delinquency rate. We also believe the slow pace of foreclosures in certain states is contributing to a slower recovery of those housing markets.

A failure in our operational systems or infrastructure, or those of third parties, could materially adversely affect our business, impair our liquidity, cause financial losses and harm our reputation.

Shortcomings or failures in our internal processes, people, data management or systems could disrupt our business or have a material adverse effect on our risk management, liquidity, financial statement reliability, financial condition and results of operations. Such a failure could result in legislative or regulatory intervention or sanctions, liability to customers, financial losses, business disruptions and damage to our reputation. For example, our business is highly dependent on our ability to manage and process, on a daily basis, an extremely large number of transactions, many of which are highly complex, across numerous and diverse markets and in an environment in which we must adapt to changing external conditions. These transactions are subject to various legal, accounting and regulatory standards. Our financial, accounting, data processing or other operating systems and facilities may fail to operate properly or become disabled or damaged as a result of a number of factors, including events that are wholly or partially beyond our control, adversely affecting our ability to process these transactions or manage associated data with reliability and integrity. In addition, we rely on information provided by third parties in processing many of our transactions; that information may be incorrect or we may fail to properly manage or analyze it or properly monitor its data quality.

We rely upon business processes that are highly dependent on people, technology and equipment, data and the use of numerous complex systems and models to manage our business and produce books and records upon which our financial statements and risk reporting are prepared. This reliance increases the risk that we may be exposed to financial, reputational or other losses as a result of inadequately designed internal processes or data management architecture, inflexible technology or the failure of our systems. While we continue to enhance our technology, infrastructure, operational controls and organizational structure in order to reduce our operational risk, these actions may not be effective to manage these risks and may create additional operational risk as we execute these enhancements. In addition, our use of third-party service providers for some of our business functions increases the risk that an operational failure by a third party will adversely affect us.

Our ability to manage and aggregate data may be limited by the effectiveness of our policies, programs, processes, systems and practices that govern how data is acquired, validated, stored, protected, processed and shared. Failure to manage data effectively and to aggregate data in an accurate and timely manner may limit our ability to manage current and emerging risks, as well as to manage changing business needs.

We also face the risk of operational failure, termination or capacity constraints of any of the clearing agents, exchanges, clearinghouses or other financial intermediaries we use to facilitate our securities and derivatives transactions. In recent years, there has been significant consolidation among clearing agents, exchanges and clearing houses. This consolidation and interconnectivity increases the risk of operational failure, on both an individual basis and an industry-wide basis, as disparate complex systems need to be integrated, often on an accelerated basis. Any such failure, termination or constraint could adversely affect our ability to effect transactions or manage our exposure to risk, and could have a significant adverse impact on our business, liquidity, financial condition, net worth and results of operations.

Substantially all of our employees and business operations functions are consolidated in two metropolitan areas: Washington, DC and Dallas, Texas. As a result of this concentration of our employees and facilities, a catastrophic event at either location, such as a terrorist attack, natural disaster, extreme weather event or disease pandemic could impact our ability to operate notwithstanding the business continuity plans and facilities that we have in place. Although we have an out-of-region data center for disaster recovery, this data center will take several days to become operational in the event it becomes necessary as a result of the catastrophic loss of our in-region data center. Moreover, because of the concentration of our employees in the Washington, DC and Dallas metropolitan areas, if a regional disruption occurs in one of these areas, our employees may not be not able to occupy our facilities, work remotely, or communicate with or travel to other locations. Accordingly, we may not be able to successfully implement our contingency plans if a catastrophic event occurs, which could materially adversely affect our ability to conduct our business and lead to financial losses.

A breach of the security of our systems or facilities, or those of third parties with which we do business, including as a result of cyber attacks, could damage or disrupt our business or result in the disclosure or misuse of confidential information, which could damage our reputation, increase our costs and cause losses.

Our operations rely on the secure receipt, processing, storage and transmission of confidential and other information in our computer systems and networks and with our business partners, including proprietary, confidential or personal information that is subject to privacy laws, regulations or contractual obligations. Information security risks for large institutions like us have significantly increased in recent years in part because of the proliferation of new technologies, the use of the Internet and telecommunications technologies to conduct or automate financial transactions, and the increased sophistication and activities of organized crime, hackers, terrorists and other external parties, including foreign state-sponsored actors. These actors may fraudulently entice users to provide unauthorized access to our systems, network and data. From time to time we have been, and likely will continue to be, the target of attempted cyber attacks, computer viruses, malicious code, phishing attacks, denial of service attacks and other information security threats. To date, we have not experienced any material losses relating to cyber attacks; however, we could suffer such losses in the future and we are not able to predict the severity of these attacks. Our risk and exposure to these matters remains heightened because of, among other things, the evolving nature of these threats, the current global economic and political environment, our prominent size and scale and our role in the financial services industry, the outsourcing of some of our business operations, and the interconnectivity and interdependence of third parties to our systems.

Although we take measures to protect the security of our software and network-enabled computers and systems, our software, computers and systems may be vulnerable to cyber attacks, breaches, unauthorized access, misuse, computer viruses or other malicious code and other events that could have a security impact. The occurrence of such an event could jeopardize or result in the unauthorized disclosure, gathering, monitoring, misuse, corruption, loss or destruction of confidential and other information that belongs to us, our customers, our counterparties, third-party service providers or borrowers that is processed and stored in, and transmitted through, our computer systems and networks. The occurrence of such an event could also result in damage to our software, computers or systems, or otherwise cause interruptions or malfunctions in our, our customers', our counterparties' or third parties' operations. This could result in significant losses, loss of customers and business opportunities, reputational damage, litigation, regulatory fines, penalties or intervention, reimbursement or other compensatory costs, or otherwise adversely affect our business, financial condition or results of operations. In addition, we may be required to expend significant additional resources to modify our protective measures and to investigate and remediate vulnerabilities or other exposures arising from operational and security risks. Although we maintain insurance coverage relating to cybersecurity risks, our insurance may not be sufficient to provide adequate loss coverage in all circumstances.

Third parties with which we do business may also be sources of cybersecurity or other technological risks. We outsource certain functions and these relationships allow for the external storage and processing of our information, as well as customer, counterparty and borrower information, including on cloud-based systems. While we engage in actions to mitigate our exposure resulting from outsourcing, ongoing threats may result in unauthorized access, loss or destruction of data or other cybersecurity incidents with increased costs and consequences to us such as those described above.

Our concurrent implementation of multiple new initiatives may increase our operational risk and result in one or more significant deficiencies or material weaknesses in our internal control over financial reporting.

We are currently implementing a number of initiatives in furtherance of our goals to better serve our customers' needs, improve our business efficiency and help to build a sustainable housing finance system, including initiatives implementing FHFA's conservatorship scorecard objectives. The magnitude of the many new initiatives we are undertaking may increase our operational risk. Many of these initiatives involve significant changes to our business processes, systems and infrastructure, and present significant operational challenges for us. For example, we are working with FHFA and Freddie Mac on a multi-year effort to build a common securitization platform to eventually replace some of our current securitization infrastructure and to issue a single security on this platform. This initiative, in coordination with related internal infrastructure upgrades, is expected to result in significant changes to our current systems and operations, and involves a high degree of complexity. While implementation of each individual initiative creates operational challenges, implementing multiple initiatives during the same time period significantly increases these challenges. Due to the operational complexity associated with these changes and the limited time periods for implementing them, we believe there is a risk that implementing these changes could result in one or more significant deficiencies or material weaknesses in our internal control over financial reporting in a future period. If this were to occur, we could experience material errors in our reported financial results. In addition, FHFA, Treasury, other agencies of the U.S. government or Congress may require us to take actions in the future that could further increase our operational risk.

We may undertake efforts that adversely affect our business, results of operations, financial condition, liquidity and net worth.

In conservatorship our business is no longer managed with a strategy to maximize shareholder returns while fulfilling our mission. FHFA's current strategic goals for our conservatorship are described in "Business—Legislation and Regulation—Housing Finance Reform—Conservator Developments and Strategic Goals." In pursuit of the goals prescribed by our conservator, we are taking a variety of actions that could adversely affect our economic returns, possibly significantly, such as modifying loans to help struggling borrowers; expanding our underwriting and eligibility requirements to increase access to mortgage credit; increasing our use of credit risk transfer transactions, which effectively reduces the guaranty fee income we retain on the covered loans; and preparing to issue a single security. We may also be asked to take additional efforts in support of our conservator's goals in the future that could adversely affect our economic returns. These activities may have short- and long-term adverse effects on our business, results of operations, financial condition, liquidity and net worth.

Other agencies of the U.S. government or Congress also may ask us to undertake significant efforts to support the housing and mortgage markets, as well as struggling homeowners. They may also ask us to take actions in support of other goals. These actions may adversely affect our financial results and condition. For example, in December 2011 Congress enacted the TCCA under which, at the direction of FHFA, we increased the guaranty fee on all single-family residential mortgages delivered to us by 10 basis points effective April 1, 2012. The revenue generated by this fee increase is paid to Treasury and helps offset the cost of a two-month extension of the payroll tax cut in 2012.

We are also required by the GSE Act to undertake efforts in support of the housing market that could adversely affect our financial results and condition. For example, we are subject to housing goals under the GSE Act that require that a portion of the mortgage loans we acquire must be for low- and very-low income families, families in low-income census tracts and moderate-income families in minority census tracts or designated disaster areas. FHFA's 2015 to 2017 housing goals include higher benchmarks for most of the goals than those that were applicable in prior years. In addition, in December 2016, FHFA issued a final rule to implement our new duty to serve very low-, low- and moderate-income families in three underserved markets: manufactured housing, affordable housing preservation and rural areas. We will be required to make changes to our business and our acquisitions in the future to comply with our new duty to serve obligations. We may take actions to meet our housing goals and duty to serve obligations that could adversely affect our profitability. For example, we may acquire loans that offer lower expected returns on our investment than our other loan acquisitions and that may potentially increase our credit losses and credit-related expenses. If we do not meet our housing goals or duty to serve requirements, and FHFA finds that the goals or requirements were feasible, we may become subject to a housing plan that could require us to take additional steps that could have an adverse effect on our results of operations and financial condition. The potential penalties for failure to comply with housing plan requirements include a cease-and-desist order and civil money penalties. See “Business—Legislation and Regulation—GSE Act and Other Regulation of Our Business” for more information on our housing goals and duty to serve underserved markets.

Limitations on our ability to access the debt capital markets could have a material adverse effect on our ability to fund our operations.

Our ability to fund our business depends primarily on our ongoing access to the debt capital markets. Market concerns about matters such as the extent of government support for our business, the future of our business (including future profitability, future structure, regulatory actions and GSE status) and the creditworthiness of the U.S. government could cause a severe negative effect on our access to the unsecured debt markets, particularly for long-term debt. We believe that our ability in recent years to issue debt of varying maturities at attractive pricing resulted from federal government support of our business. As a result, we believe that our status as a GSE and continued federal government support is essential to maintaining our access to debt funding. Changes or perceived changes in federal government support of our business or our status as a GSE could materially and adversely affect our liquidity, financial condition and results of operations. There can be no assurance that the government will continue to support us, or that our current level of access to debt funding will continue. In addition, due to our reliance on the U.S. government’s support, our access to debt funding also could be materially adversely affected by a change or perceived change in the creditworthiness of the U.S. government.

Future changes or disruptions in the financial markets could significantly change the amount, mix and cost of funds we obtain, as well as our liquidity position. If we are unable to issue both short- and long-term debt securities at attractive rates and in amounts sufficient to operate our business and meet our obligations, it likely would interfere with the operation of our business and have a material adverse effect on our liquidity, results of operations, financial condition and net worth.

Our liquidity contingency plans may be difficult or impossible to execute during a liquidity crisis.

We believe that our liquidity contingency plans may be difficult or impossible to execute during a liquidity crisis. If we cannot access the unsecured debt markets, our ability to repay maturing indebtedness and fund our operations could be eliminated or significantly impaired. In this event, our alternative sources of liquidity—consisting of our cash and other investments portfolio and the unencumbered mortgage assets in our retained mortgage portfolio—may not be sufficient to meet our liquidity needs.

We believe that the amount of mortgage-related assets that we could successfully sell or borrow against in the event of a liquidity crisis or significant market disruption is substantially lower than the amount of mortgage-related assets we hold. Due to the current composition of our retained mortgage portfolio, including the significant amount of distressed assets in our portfolio, there would likely be insufficient market demand for large amounts of the mortgage-related assets in our portfolio over a prolonged period of time, which would limit our ability to borrow against or sell these assets. To the extent that we are able to obtain funding by pledging or selling mortgage-related securities as collateral, we anticipate that a discount would be applied that would reduce the value assigned to those securities. Depending on market conditions at the time, this discount could result in proceeds significantly lower than the current market value of these securities and could thereby reduce the amount of financing we obtain.

A decrease in the credit ratings on our senior unsecured debt could have an adverse effect on our ability to issue debt on reasonable terms, particularly if such a decrease were not based on a similar action on the credit ratings of the U.S. government. A decrease in our credit ratings also could trigger additional collateral requirements under our derivatives contracts.

A reduction in our credit ratings could materially adversely affect our liquidity, our ability to conduct our normal business operations, our financial condition and our results of operations. Credit ratings on our senior unsecured debt, as well as the credit ratings of the U.S. government, are primary factors that could affect our borrowing costs and our access to the debt capital markets. Credit ratings on our debt are subject to revision or withdrawal at any time by the rating agencies. Actions by governmental entities impacting the support we receive from Treasury could adversely affect the credit ratings on our senior unsecured debt. As of December 31, 2016, our long-term debt was rated “AA+” by Standard & Poor’s Ratings Services (“S&P”), “Aaa” by Moody’s Investors Services (“Moody’s”) and “AAA” by Fitch Ratings Limited (“Fitch”).

Because we rely on the U.S. government for capital support, in recent years, when a rating agency has taken an action relating to the U.S. government's credit rating, they have taken a similar action relating to our ratings at approximately the same time. S&P, Moody's and Fitch have all indicated that they would likely lower their ratings on the debt of Fannie Mae and certain other government-related entities if they were to lower their ratings on the U.S. government. We currently cannot predict whether one or more of these rating agencies will downgrade our debt ratings in the future, nor can we predict the potential impact.

A reduction in our credit ratings may also trigger additional collateral requirements under our derivative contracts because a majority of our over-the-counter ("OTC") derivative contracts contain provisions that require our senior unsecured debt to maintain a minimum credit rating from S&P and Moody's. If our senior unsecured debt credit ratings were downgraded to established thresholds in our OTC derivative contracts, which range from A+ to BBB+, we could be required to provide additional collateral to or terminate transactions with certain counterparties. The aggregate fair value of all OTC derivatives with credit-risk-related contingent features that were in a net liability position as of December 31, 2016 was $1.6 billion, for which we posted collateral of $1.4 billion in the normal course of business. If our senior unsecured debt had been downgraded to AA or Aa1, or even to AA- or Aa2, we would not have been required to post any additional collateral under these agreements as of December 31, 2016. If all of the credit-risk-related contingency features underlying these agreements had been triggered, an additional $258 million would have been required either to be posted as collateral or to immediately settle our positions based on the individual agreements and our fair value position as of December 31, 2016. A reduction in our credit ratings also could cause derivatives clearing organizations or their members to demand that we post additional collateral for our cleared derivative contracts. Our credit ratings and ratings outlook are included in "MD&A—Liquidity and Capital Management—Liquidity Management—Credit Ratings."

One or more of our institutional counterparties may fail to fulfill their contractual obligations to us, resulting in financial losses, business disruption and decreased ability to manage risk.

We routinely enter into a high volume of transactions with counterparties in the financial services industry. We face the risk that one or more of our institutional counterparties may fail to fulfill their contractual obligations to us. Our primary exposures to institutional counterparty risk are with mortgage servicers that service the loans we hold in our retained mortgage portfolio or that back our Fannie Mae MBS; mortgage sellers and servicers that are obligated to repurchase loans from us or reimburse us for losses in certain circumstances; credit guarantors that provide credit enhancements on the mortgage assets that we hold in our retained mortgage portfolio or that back our Fannie Mae MBS, including mortgage insurers, credit insurance risk transfer counterparties, financial guarantors and multifamily lenders with risk sharing arrangements; custodial depository institutions that hold principal and interest payments for loans in our retained mortgage portfolio and for MBS certificateholders, as well as collateral posted by derivatives counterparties, mortgage sellers and mortgage servicers; the financial institutions that issue the investments held in our cash and other investments portfolio; and derivatives counterparties.

We may have multiple exposures to one counterparty as many of our counterparties provide several types of services to us. For example, our lender customers or their affiliates may also act as derivatives counterparties, mortgage servicers, custodial depository institutions or document custodians. Accordingly, if one of these counterparties were to become insolvent or otherwise default on its obligations to us, it could harm our business and financial results in a variety of ways.

An institutional counterparty may default in its obligations to us for a number of reasons, such as changes in financial condition that affect its credit rating, changes in its servicer rating, a reduction in liquidity, operational failures or insolvency. Counterparty defaults or limitations on their ability to do business with us could result in significant financial losses or hamper our ability to do business or manage the risks to our business, which could materially adversely affect our business, results of operations, financial condition, liquidity and net worth.

We depend on our ability to enter into derivatives transactions in order to manage the duration and prepayment risk of our retained mortgage portfolio. If we lose access to our derivatives counterparties, it could adversely affect our ability to manage these risks, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

Our financial condition or results of operations may be adversely affected if mortgage servicers fail to perform their obligations to us.

We delegate the servicing of the mortgage loans in our guaranty book of business to mortgage servicers; we do not have our own servicing function. Functions performed by mortgage servicers on our behalf include collecting and delivering principal and interest payments, administering escrow accounts, monitoring and reporting delinquencies, performing default prevention activities and other functions. The inability of a mortgage servicer to perform these functions due to financial, operational, regulatory or other issues could negatively affect our ability to manage our book of business, delay or prevent our collection of amounts due to us or otherwise result in the failure to perform other servicing duties, resulting in financial losses.

Our servicers also have an active role in our loss mitigation efforts. Our ability to actively manage the troubled loans that we own or guarantee, and to implement our homeownership assistance and foreclosure prevention efforts quickly and effectively, is limited by our reliance on our mortgage servicers. A decline in servicer performance on loss mitigation could adversely affect our credit performance, which could have a material adverse effect on our business, results of operations and financial condition.

A large portion of our single-family guaranty book is serviced by non-depository servicers. The potentially lower financial strength, liquidity and operational capacity of non-depository mortgage sellers and servicers compared with depository mortgage sellers and servicers may negatively affect their ability to satisfy their repurchase or compensatory fee obligations or to service the loans on our behalf. In addition, regulatory bodies have been reviewing the activities of some of our largest non-depository servicers.

If we replace a mortgage servicer, we likely would incur costs and potential increases in servicing fees and could also face operational risks. If a mortgage servicer counterparty fails, it could result in a temporary disruption in servicing and loss mitigation activities relating to the loans serviced by that mortgage servicer, particularly if there is a loss of experienced servicing personnel. We may also face challenges in transferring a large servicing portfolio.

Multifamily mortgage servicing is typically performed by the lenders who sell the mortgages to us. We are exposed to the risk that multifamily servicers could come under financial pressure, which could potentially result in a decline in the quality of the servicing they provide us.

We may incur losses as a result of claims under our mortgage insurance policies not being paid in full or at all.

We rely heavily on mortgage insurers to provide insurance against borrower defaults on single-family conventional mortgage loans with LTV ratios over 80% at the time of acquisition. Although the financial condition of our primary mortgage insurer counterparties currently approved to write new business has improved in recent years, there is still a risk that these counterparties may fail to fulfill their obligations to pay our claims under insurance policies.

In addition, three of our mortgage insurer counterparties who are currently not approved to write new business—PMI Mortgage Insurance Co. (“PMI”), Triad Guaranty Insurance Corporation (“Triad”) and Republic Mortgage Insurance Company (“RMIC”)—are currently under various forms of supervised control by their state regulators and are in run-off. A mortgage insurer that is in run-off continues to collect renewal premiums and process claims on its existing insurance business, but no longer writes new insurance, which increases the risk that the mortgage insurer will pay claims only in part or fail to pay claims at all under existing insurance policies. Entering run-off may close off a source of profits and liquidity that may have otherwise assisted a mortgage insurer in paying claims under insurance policies, and could also cause the quality and speed of its claims processing to deteriorate. PMI and Triad have been paying only a portion of policyholder claims and deferring the remaining portion. PMI is currently paying 71.5% of claims under its mortgage insurance policies in cash and is deferring the remaining 28.5%, and Triad is currently paying 75% of claims in cash and deferring the remaining 25%. It is uncertain whether PMI or Triad will be permitted in the future to pay their deferred policyholder claims and/or increase or decrease the amount of cash they pay on claims. RMIC is no longer deferring payments on policyholder claims and has paid us its previously outstanding deferred payment obligations; however, RMIC has not paid us interest on its deferred payment obligations and remains in run-off and under the supervisory control of its state regulator. PMI, Triad and RMIC provided a combined $8.0 billion, or 6%, of our risk in force mortgage insurance coverage of our single-family guaranty book of business as of December 31, 2016.

On at least a quarterly basis, we assess our mortgage insurer counterparties’ respective abilities to fulfill their obligations to us, and our loss reserves take into account this assessment. If our assessment indicates their ability to pay claims has deteriorated significantly or if our projected claim amounts have increased, it could result in an increase in our loss reserves and our credit losses.

Risk
Factors

Challenges to the MERS® company, system and processes could pose operational, reputational and legal risks for us.
MERSCORP Holdings, Inc. (“MERSCORP”) is a privately held company that maintains an electronic registry (the “MERS System”) that tracks servicing rights and ownership of loans in the United States. Mortgage Electronic Registration Systems, Inc. (“MERS”), a wholly owned subsidiary of MERSCORP, can serve as a nominee for the owner of a mortgage loan and, in that role, become the mortgagee of record for the loan in local land records. Fannie Mae sellers and servicers may choose to use MERS as a nominee; however, we have prohibited servicers from initiating foreclosures on Fannie Mae loans in MERS’s name. A large portion of the loans we own or guarantee are registered in MERS’s name and the related servicing rights are tracked in the MERS System. The MERS System is widely used by participants in the mortgage finance industry. Along with a number of other organizations in the mortgage finance industry, we are a shareholder of MERSCORP. In 2016, Intercontinental Exchange, Inc. acquired a majority equity position in MERSCORP.
Numerous legal challenges have been made disputing MERS’s ability to initiate foreclosures, act as nominee in local land records, and/or assign mortgages or take other action on behalf of the loan owner. These challenges seek judicial relief ranging from money damages, fines and penalties to injunctive/declaratory relief seeking the prevention of mortgage assignments by MERS and/or the voiding of completed foreclosures in which MERS appeared in the chain of title. These challenges have focused public attention on MERS and on how loans are recorded in local land records. As a result, these challenges could negatively affect MERS’s ability to serve as the mortgagee of record in some jurisdictions, which could cause additional costs and time in the recordation process and could negatively impact our interest in the loans. These challenges also could result in court decisions that substantially delay new or pending foreclosures, or void completed foreclosures in certain jurisdictions, which would require that we re-foreclose on the affected properties, thereby increasing our costs and lengthening the time it takes for us to foreclose on and dispose of the properties.
In addition, where MERS is the mortgagee of record, it must execute assignments of mortgages, affidavits and other legal documents in connection with foreclosure proceedings. In April 2011, federal banking regulators and FHFA announced a consent order with MERS and MERSCORP to address significant weaknesses in, among other things, oversight, management supervision and corporate governance at MERS and MERSCORP that were uncovered as part of the regulators’ review of mortgage servicers’ foreclosure processing. Failures by MERS or MERSCORP to apply prudent and effective process controls and to comply with legal and other requirements could pose counterparty, operational, reputational and legal risks for us. If investigations or new regulation or legislation restricts servicers’ use of MERS, our counterparties may be required to record all mortgage transfers in land records, incurring additional costs and time in the recordation process. The legal challenges against MERS and MERSCORP remain ongoing. The outcome of these legal challenges could adversely affect our business, results of operations or financial condition.
Changes in accounting standards and policies can be difficult to predict and can materially impact how we record and report our financial results.
Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. From time to time, the FASB or the SEC changes the financial accounting and reporting standards or the policies that govern the preparation of our financial statements. In addition, FHFA provides guidance that affects our adoption or implementation of financial accounting or reporting standards. These changes can be difficult to predict and expensive to implement, and can materially impact how we record and report our financial condition and results of operations. We could be required to apply new or revised guidance retrospectively, which may result in the revision of prior period financial statements by material amounts. The implementation of new or revised accounting guidance, such as the new impairment guidance issued in June 2016 described above and in “Note 1, Summary of Significant Accounting Policies—New Accounting Guidance,” could have a material adverse effect on our financial results or net worth and result in or contribute to the need for additional draws from Treasury under the senior preferred stock purchase agreement.
Material weaknesses in our internal control over financial reporting could result in errors in our reported results or disclosures that are not complete or accurate.

Management has determined that, as of the date of this filing, we have ineffective disclosure controls and procedures that result in a material weakness in our internal control over financial reporting. In addition, our independent registered public accounting firm, Deloitte & Touche LLP, has expressed an adverse opinion on our internal control over financial reporting because of the material weakness. Our ineffective disclosure controls and procedures and material weakness could result in errors in our reported results or disclosures that are not complete or accurate, which could have a material adverse effect on our business and operations.

Our material weakness relates specifically to the impact of the conservatorship on our disclosure controls and procedures. Because we are under the control of FHFA, some of the information that we may need to meet our disclosure obligations may be solely within the knowledge of FHFA. As our conservator, FHFA has the power to take actions without our knowledge that could be material to our shareholders and other stakeholders, and could significantly affect our financial performance or our continued existence as an ongoing business. Because FHFA currently functions as both our regulator and our conservator, there are inherent structural limitations on our ability to design, implement, test or operate effective disclosure controls and procedures relating to information known to FHFA. As a result, we have not been able to update our disclosure controls and procedures in a manner that adequately ensures the accumulation and communication to management of information known to FHFA that is needed to meet our disclosure obligations under the federal securities laws, including disclosures affecting our financial statements. Given the structural nature of this material weakness, we do not expect to remediate this weakness while we are under conservatorship. See "Controls and Procedures" for further discussion of management's conclusions on our disclosure controls and procedures and internal control over financial reporting.

In many cases, our accounting policies and methods, which are fundamental to how we report our financial condition and results of operations, require management to make judgments and estimates about matters that are inherently uncertain. Management also relies on models in making these estimates.

Our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. Our management must exercise judgment in applying many of these accounting policies and methods so that these policies and methods comply with GAAP and reflect management's judgment of the most appropriate manner to report our financial condition and results of operations. In some cases, management must select the appropriate accounting policy or method from two or more alternatives, any of which might be reasonable under the circumstances but might affect the amounts of assets, liabilities, revenues and expenses that we report. See "Note 1, Summary of Significant Accounting Policies" for a description of our significant accounting policies.

We have identified two of our accounting policies as being critical to the presentation of our financial condition and results of operations. These accounting policies are described in "MD&A—Critical Accounting Policies and Estimates." We believe these policies are critical because they require management to make particularly subjective or complex judgments about matters that are inherently uncertain and because of the likelihood that materially different amounts would be reported under different conditions or using different assumptions.

Because our financial statements involve estimates for amounts that are very large, even a small change in the estimate can have a significant impact for the reporting period. For example, because our total loss reserves are so large, even a change that has a small impact relative to the size of our loss reserves can have a meaningful impact on our results for the quarter in which we make the change.

Many of our accounting methods involve substantial use of models. Models are inherently imperfect predictors of actual results because they are based on assumptions, including assumptions about future events. Our actual results could differ significantly from those generated by our models. As a result, the estimates that we use to prepare our financial statements, as well as our estimates of our future results of operations, may be inaccurate, perhaps significantly.

Failure of our models to produce reliable results may adversely affect our ability to manage risk and make effective business decisions.

We make significant use of quantitative models to measure and monitor our risk exposures and to manage our business. For example, we use models to measure and monitor our exposures to interest rate, credit and market risks, and to forecast credit losses. The information provided by these models is used in making business decisions relating to strategies, initiatives, transactions, pricing and products.

Models are inherently imperfect predictors of actual results because they are based on historical data and assumptions regarding factors such as future loan demand, borrower behavior, creditworthiness and home price trends. Other potential sources of inaccurate or inappropriate model results include errors in computer code, bad data, misuse of data, or use of a model for a purpose outside the scope of the model’s design. Modeling often assumes that historical data or experience can be relied upon as a basis for forecasting future events, an assumption that may be especially tenuous in the face of unprecedented events.

Given the challenges of predicting future behavior, management judgment is used at every stage of the modeling process, from model design decisions regarding core underlying assumptions, to interpreting and applying final model output. To control for these inherent imperfections, our models are validated by an independent model risk management team within our Enterprise Risk Division and are subject to control requirements set by our model risk policies.

When market conditions change quickly and in unforeseen ways, there is an increased risk that the model assumptions and data inputs for our models are not representative of the most recent market conditions. Under such circumstances, we must rely on management judgment to make adjustments or overrides to our models. A formal model update is typically an extensive process that involves basic research, testing, independent validation and production implementation. In a rapidly changing environment, it may not be possible to update existing models quickly enough to properly account for the most recently available data and events. Management adjustments to modeled results are applied within the confines of the governance structure provided by a combination of our model risk management team and our finance and risk committees.

If our models fail to produce reliable results on an ongoing basis, we may not make appropriate risk management decisions, including decisions affecting loan purchases, management of credit losses, guaranty fee pricing, and asset and liability management. Any of these decisions could adversely affect our business, results of operations, liquidity, net worth and financial condition. Furthermore, strategies we employ to manage and govern the risks associated with our use of models may not be effective or fully reliable.

Changes in interest rates or our loss of the ability to manage interest rate risk successfully could adversely affect our financial results and condition, and increase interest rate risk.

We fund our operations primarily through the issuance of debt and invest our funds primarily in mortgage-related assets that permit mortgage borrowers to prepay their mortgages at any time. These business activities expose us to market risk, which is the risk of loss resulting from adverse changes in the value of financial instruments caused by changes in market conditions. Market risk includes interest rate risk, which is the risk of loss from adverse changes in the value of our assets or liabilities or our future earnings due to changes in interest rates. We describe these risks in more detail in “MD&A—Risk Management—Market Risk Management, Including Interest Rate Risk Management.”

Changes in interest rates affect both the value of our mortgage assets and prepayment rates on our mortgage loans. Changes in interest rates could have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth. Our ability to manage interest rate risk depends on our ability to issue debt instruments with a range of maturities and other features, including call provisions, at attractive rates and to engage in derivatives transactions. We must exercise judgment in selecting the amount, type and mix of debt and derivative instruments that will most effectively manage our interest rate risk. The amount, type and mix of financial instruments that are available to us may not offset possible future changes in the spread between our borrowing costs and the interest we earn on our mortgage assets.

We mark to market changes in the estimated fair value of our derivatives through our earnings on a quarterly basis, but we do not similarly mark to market changes in some of the financial instruments that generate our interest rate risk exposures. As a result, changes in interest rates, particularly significant changes, can have a significant adverse effect on our earnings and net worth for the quarter in which the changes occur, depending on the nature of the changes and the derivatives we hold at that time. We have experienced significant fair value losses in some periods due to changes in interest rates, and we expect to continue to experience volatility from period to period in our financial results as a result of fair value losses or gains on our derivatives.

Changes in interest rates also can affect our credit losses. When interest rates increase, our credit losses from loans with adjustable payment terms may increase as borrower payments increase at their reset dates, which increases the borrower’s risk of default, particularly for adjustable-rate loans with interest-only features. Rising interest rates may also reduce the opportunity for these borrowers to refinance into a fixed-rate loan. Similarly, many borrowers may have additional debt obligations, such as home equity lines of credit and second liens, that also have adjustable payment terms. If a borrower's payment on his or her other debt obligations increases due to rising interest rates or a change in amortization, it increases the risk that the borrower may default on a loan we own or guarantee. In addition to increasing the risk of future borrower defaults, rising interest rates reduce

Risk
Factors

expected future loan prepayments, which lengthens the expected life of our individually impaired loans and therefore increases our impairment related to concessions we have provided on those loans.

While we have not experienced negative interest rates in the United States, some central banks in Europe and Asia have cut interest rates below zero. If U.S. interest rates were to fall below zero, it could negatively impact our financial results and increase our operational risk.

Changes in spreads could materially impact our results of operations, net worth and the fair value of our net assets.

Spread risk or basis risk is the resulting impact of changes in the spread between our mortgage assets and our debt and derivatives we use to hedge our position. Changes in market conditions, including changes in interest rates, liquidity, prepayment and default expectations, and the level of uncertainty in the market for a particular asset class may cause fluctuations in spreads. Changes in mortgage spreads have contributed to significant volatility in our financial results in certain periods, due to fluctuations in the estimated fair value of the financial instruments that we mark to market through our earnings, and this could occur again in a future period. A widening of mortgage spreads could cause significant fair value losses, and could adversely affect our near-term financial results and net worth. We do not actively manage or hedge our spread risk after we purchase mortgage assets, other than through asset monitoring and disposition.

Our business is subject to laws and regulations that restrict our activities and operations, which limit our ability to diversify our business and may prohibit us from undertaking activities that management believes would benefit our business.

As a federally chartered corporation, we are subject to the limitations imposed by the Charter Act, extensive regulation, supervision and examination by FHFA and regulation by other federal agencies, including Treasury, HUD and the SEC. As a company under conservatorship, our primary regulator has management authority over us in its role as our conservator. We are also subject to other laws and regulations that affect our business, including those regarding taxation and privacy.

The Charter Act defines our permissible business activities. For example, we may not originate mortgage loans or purchase single-family loans in excess of the conforming loan limits, and our business is limited to the U.S. housing finance sector. In addition, as described in a previous risk factor, our business activities are subject to significant restrictions as a result of the conservatorship and the senior preferred stock purchase agreement. As a result of these limitations on our ability to diversify our operations, our financial condition and results of operations depend almost entirely on conditions in a single sector of the U.S. economy, specifically, the U.S. housing market. Weak or unstable conditions in the housing market can therefore have a significant adverse effect on our results of operations, financial condition and net worth.

Our business and financial results could be materially adversely affected by legal or regulatory proceedings.

We are a party to various claims and other legal proceedings. We also have been, and in the future may be, involved in government investigations. We may be required to establish accruals and to make substantial payments in the event of adverse judgments or settlements of any such claims, investigations or proceedings, which could have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth. Any legal proceeding or governmental investigation, even if resolved in our favor, could result in negative publicity or cause us to incur significant legal and other expenses.

Developments in, outcomes of, impacts of, and costs, expenses, settlements and judgments related to these legal proceedings and governmental investigations may differ from our expectations and exceed any amounts for which we have accrued or require adjustments to such accruals. In addition, responding to these matters could divert significant internal resources away from managing our business.

An active trading market in our equity securities may cease to exist, which would adversely affect the market price and liquidity of our common and preferred stock.

Our common stock and preferred stock are now traded exclusively in the over-the-counter market. We cannot predict the actions of market makers, investors or other market participants, and can offer no assurances that the market for our securities will be stable. If there is no active trading market in our equity securities, the market price and liquidity of the securities will be adversely affected.

Mortgage fraud could result in significant financial losses and harm to our reputation.
We use a process of delegated underwriting in which lenders make specific representations and warranties about the characteristics of the mortgage loans we purchase and securitize. As a result, we do not independently verify most borrower information that is provided to us. This exposes us to the risk that one or more of the parties involved in a transaction (the borrower, seller, broker, appraiser, title agent, lender or servicer) will engage in fraud by misrepresenting facts about a mortgage loan. Similarly, we rely on delegated servicing of loans and use of a variety of external resources to manage our REO. We have experienced financial losses resulting from mortgage fraud, including institutional fraud perpetrated by counterparties. In the future, we may experience additional financial losses or reputational damage as a result of mortgage fraud.

Risks Relating To Our Industry

Our business and financial results are affected by general economic conditions, particularly home prices and employment trends, and a deterioration of economic conditions or the financial markets may materially adversely affect our results of operations, net worth and financial condition.
Our business is significantly affected by the status of the U.S. economy, particularly home prices and employment trends. A prolonged period of slow growth in the U.S. economy or any deterioration in general economic conditions or the financial markets could materially adversely affect our results of operations, net worth and financial condition. For example, if home prices decrease or the unemployment rate increases, it could result in significantly higher levels of credit losses and credit-related expense.
Global economic conditions can also adversely affect our business and financial results. Changes or volatility in market conditions resulting from deterioration in or uncertainty regarding global economic conditions can adversely affect the value of our assets, which could materially adversely affect our results of operations, net worth and financial condition. For example, concerns about the impact of Brexit contributed to a decline in interest rates in the second quarter of 2016. This decline in interest rates contributed to the fair value losses on our derivatives in the second quarter of 2016. Global economic conditions also could negatively affect the credit performance of the loans in our book of business.
Volatility or uncertainty in global political conditions also can significantly affect economic conditions and the financial markets. We describe above the risks to our business posed by changes in interest rates and changes in spreads. In addition, as described above, future changes or disruptions in the financial markets could significantly change the amount, mix and cost of funds we obtain, as well as our liquidity position.
A decline in activity in the U.S. housing market or increasing interest rates could lower our business volumes.
Our business volume is affected by the rate of growth in total U.S. residential mortgage debt outstanding and the size of the U.S. residential mortgage market. A decline in mortgage debt outstanding reduces the unpaid principal balance of mortgage loans available for us to acquire, which in turn could reduce our net interest income. Even if we were able to increase our share of the secondary mortgage market, it may not be sufficient to make up for a decline in the rate of growth in mortgage originations.
Mortgage interest rates also affect our business volume. Rising interest rates generally result in fewer mortgage originations, particularly for refinances. An increase in interest rates, particularly if the increase is sudden and steep, could significantly reduce our business volume. Significant reductions in our business volume could adversely affect our results of operations and financial condition. In December 2016, the Federal Reserve raised the target range for the federal funds rate and stated that it expects economic conditions to evolve in a manner that will warrant only gradual increases in the federal funds rate. The Federal Reserve may increase rates at a faster rate than it is currently expecting. Moreover, the Federal Reserve’s federal funds rate path is not the only factor that affects long-term interest rates. Accordingly, our business remains subject to the risk of sudden and steep interest rate increases.
A reduction or end to the Federal Reserve’s acquisition of agency mortgage-backed securities could adversely affect our business, results of operations, financial condition, liquidity and net worth.

In recent years, the Federal Reserve has purchased a significant amount of mortgage-backed securities issued by us, Freddie Mac and Ginnie Mae. The Federal Reserve began to taper these purchases in January 2014 and concluded its asset purchase program in October 2014. Since concluding its asset purchase program, the Federal Reserve has maintained its existing policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities; therefore, it has continued to purchase a significant amount of agency mortgage-backed securities. In a statement issued in February 2017, the Federal Reserve indicated that it anticipates maintaining its current reinvestment policy "until normalization of the level of the federal funds rate is well under way." Any change in the Federal Reserve's policy towards the reinvestment of principal payments of mortgage-backed securities, or possible future sales of mortgage-backed securities by the Federal Reserve, could result in increases in mortgage interest rates, adversely affect our business volume and reduce demand for Fannie Mae MBS, which could adversely affect our business, results of operations, financial condition, liquidity and net worth.

Changing regulations applicable to U.S. banks could materially adversely affect demand by banks for our debt securities and Fannie Mae MBS in the future.

U.S. banking regulators have issued a number of new regulations in recent years, including regulations relating to capital requirements, liquidity requirements, stress testing and other matters. These new requirements could materially adversely affect demand by U.S. banks for our debt securities and Fannie Mae MBS in the future and could limit the ability of banks to create markets for our debt securities and Fannie Mae MBS, which could adversely affect the price of those securities and could have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth. For example, U.S. banking regulators issued a regulation that became effective January 1, 2015 setting minimum liquidity standards for large U.S. banks generally in accordance with Basel III standards. Under the rule, U.S. banks subject to the standards are required to hold a minimum level of high-quality liquid assets based on projections of their short-term cash needs. The debt and mortgage-related securities of Fannie Mae and Freddie Mac are permitted to count toward only up to 40% of the banks' high-quality liquid asset requirement, and then only after applying a 15% discount to the market value of those securities. U.S. banks currently hold large amounts of our outstanding debt and MBS securities, and prior U.S. banking regulations did not limit the amount of these securities that banks were permitted to count toward their liquidity requirements. Accordingly, this rule could materially adversely affect demand by banks for Fannie Mae debt securities and Fannie Mae MBS in the future and could limit the ability of banks to create markets for our debt securities and Fannie Mae MBS.

The Dodd-Frank Act and regulatory changes in the financial services industry may negatively impact our business.

The Dodd-Frank Act has significantly changed the regulation of the financial services industry. This legislation is affecting and is expected to continue to affect many aspects of our business and could affect us in substantial and unforeseeable ways. The Dodd-Frank Act and related regulatory changes have required us to change certain business practices, limit the types of products we offer and incur additional costs. Additionally, implementation of this legislation has resulted in and is expected to continue to result in increased supervision and more comprehensive regulation of our customers and counterparties in the financial services industry, which may have a significant impact on the business practices of our customers and counterparties, as well as on our counterparty credit risk. The Dodd-Frank Act's impact on our customers' and counterparties' business practices could indirectly adversely affect our business. For example, if our customers reduce the amount of their mortgage originations, it would adversely affect the number of mortgages available for us to purchase or guarantee.

Examples of aspects of the Dodd-Frank Act and related regulatory changes that have affected us or may affect us in the future include: rules requiring the clearing of certain derivatives transactions and margin and capital rules for uncleared derivative trades, which impose additional costs on us; the CFPB's "ability-to-repay" rule, which has limited the types of products we offer and could impact the volume of loans sold to us in the future; and the development of single-counterparty credit limit regulations, which could cause our customers to change their business practices.

The Dodd-Frank Act also established the Financial Stability Oversight Council to ensure that all financial companies—not just banks—whose failure could pose a threat to the financial stability of the United States will be subject to strong oversight. Under the Dodd-Frank Act, the Financial Stability Oversight Council is responsible for designating systemically important nonbank financial companies. It is possible that we could be designated as a systemically important nonbank financial company by the Financial Stability Oversight Council, although we have not received any notification of possible designation. If this were to occur, we would become subject to regulation by the Federal Reserve Board, which could impose stricter prudential standards on us.

The current Administration and some members of Congress have indicated a desire to amend the Dodd-Frank Act. If the Dodd-Frank Act is amended, it could affect regulations currently applicable to us and our customers and counterparties. We cannot predict the prospects for the enactment of amendments to the Dodd-Frank Act or how they might impact our business or our customers and counterparties.

In addition, the actions of Treasury, the Commodity Futures Trading Commission, the SEC, the FDIC, the Federal Reserve and international central banking authorities directly or indirectly impact financial institutions' cost of funds for lending, capital-raising and investment activities, which could increase our borrowing costs or make borrowing more difficult for us. Changes in monetary policy are beyond our control and difficult to anticipate.

Overall, these legislative and regulatory changes could affect us in substantial and unforeseeable ways and could have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth.

Legislative, regulatory or judicial actions could negatively impact our business, results of operations, financial condition or net worth.

Legislative, regulatory or judicial actions at the federal, state or local level could negatively impact our business, results of operations, financial condition or net worth. Legislative, regulatory or judicial actions could affect us in a number of ways, including by imposing significant additional costs on us and diverting management attention or other resources. For example, we could be affected by legislative or regulatory changes that expand our or our servicers' responsibility and liability for securing, maintaining or otherwise overseeing vacant properties prior to foreclosure, which could increase our costs. We also could be affected by state laws and court decisions granting new or expanded priority rights to homeowners associations over our mortgages, which could adversely affect our ability to recover our losses on affected loans. In addition, as described above, our business could be materially adversely affected by legislative and regulatory actions relating to housing finance reform, corporate income tax reform or the financial services industry, or by legal or regulatory proceedings.

The occurrence of a major natural or other disaster in the United States could negatively impact our credit losses and credit-related expenses.

We conduct our business in the residential and multifamily mortgage markets and own or guarantee the performance of mortgage loans throughout the United States. The occurrence of a major natural or environmental disaster, terrorist attack, cyber attack, pandemic, or similar event (a "major disruptive event") in a regional geographic area of the United States could negatively impact our credit losses and credit-related expenses in the affected area or, depending on the nature of the event, nationally.

The occurrence of a major disruptive event could negatively impact a geographic area in a number of different ways, depending on the nature of the event. A major disruptive event that either damages or destroys residential or multifamily real estate securing mortgage loans in our book of business or negatively impacts the ability of borrowers to continue to make principal and interest payments on mortgage loans in our book of business could increase our delinquency rates, default rates and average loan loss severity of our book of business in the affected region or regions, which could have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth. While we attempt to create a geographically diverse mortgage credit book of business, there can be no assurance that a major disruptive event, depending on its magnitude, scope and nature, will not generate significant credit losses and credit-related expenses.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We own or lease ten office facilities in the Washington, DC area with a total square footage of approximately 2,161,000 square feet.

In January 2015, we entered into a lease for a future principal office in a building to be built at 1100 15th Street, NW, Washington, DC. Accordingly, we sold our current principal office located at 3900 Wisconsin Ave, NW, Washington, DC, as well as two other Washington, DC office facilities, in November 2016. We currently occupy these three facilities pursuant to lease arrangements.

We also maintain approximately 680,000 square feet of office space in leased premises in Dallas, Texas and other locations in the United States.

Item 3. Legal Proceedings

This item describes our material legal proceedings. We describe additional material legal proceedings in "Note 18, Commitments and Contingencies," which is incorporated herein by reference. In addition to the matters specifically described or incorporated by reference in this item, we are involved in a number of legal and regulatory proceedings that arise in the ordinary course of business that do not have a material impact on our business. Litigation claims and proceedings of all types are subject to many factors that generally cannot be predicted accurately.

We record accruals for legal claims when losses associated with those claims become probable and the amounts can be reasonably estimated. The actual costs of resolving legal claims may be substantially higher or lower than the amounts accrued for those claims. For matters where the likelihood or extent of a loss is not probable or cannot be reasonably estimated, we do not recognize in our consolidated financial statements the potential liability that may result from these matters. We presently cannot determine the ultimate resolution of the matters described below or incorporated by reference into this item. If certain of these matters are determined against us, FHFA or Treasury it could have a material adverse effect on our results of operations, liquidity and financial condition, including our net worth.

FHFA Private-Label Mortgage-Related Securities Litigation

In the third quarter of 2011, FHFA, as conservator, filed 16 lawsuits on behalf of both Fannie Mae and Freddie Mac against various financial institutions, their officers and affiliated and unaffiliated underwriters that were responsible for marketing and selling private-label mortgage-related securities to us. Fourteen of these lawsuits were resolved during 2013 and 2014, and two remain pending.

These two remaining lawsuits, which were both filed on September 2, 2011, seek to recover losses we and Freddie Mac incurred on the private-label mortgage-related securities the defendants sold to us and Freddie Mac. The lawsuits allege that the defendants violated federal and state securities laws by making material misstatements and omissions regarding the characteristics of the loans underlying the securities in the offering documents for the securities that were sold to Fannie Mae and Freddie Mac. The complaints seek, among other things, rescission and recovery of consideration paid for the securities at issue in the lawsuits and interest.

One of the remaining lawsuits is against Nomura Holding America Inc., RBS Securities Inc. and certain related entities and individuals. On May 15, 2015, the U.S. District Court for the Southern District of New York entered a final judgment in the Nomura action, holding the defendants liable for claims brought under state and federal securities laws. On June 10, 2015, defendants in the Nomura action appealed this judgment to the U.S. Court of Appeals for the Second Circuit, which heard oral argument on November 18, 2016. The judgment, if affirmed in full, requires defendants to pay Fannie Mae $27 million and Freddie Mac $779 million, and requires Fannie Mae and Freddie Mac to deliver the securities at issue in the complaint to the defendants. In addition, if the judgment is affirmed in full, defendants are required to pay $33 million to cover attorneys' fees and costs for both us and Freddie Mac.

The other remaining lawsuit is against The Royal Bank of Scotland Group PLC and certain related entities and individuals, and is pending in the U.S. District Court for the District of Connecticut.

Senior Preferred Stock Purchase Agreements Litigation

Between June 2013 and October 2016, several lawsuits were filed by preferred and common stockholders of Fannie Mae and Freddie Mac in the U.S. Court of Federal Claims, the U.S. District Court for the District of Columbia, the U.S. District Court for the Southern District of Iowa, the U.S. District Court for the Northern District of Iowa, the U.S. District Court for the District of Delaware, the U.S. District Court for the Eastern District of Kentucky, the U.S. District Court for the Northern District of Illinois, the U.S. District Court for the Western District of Texas and the U.S. District Court for the Southern District of Texas against one or more of the United States, Treasury and FHFA, challenging actions taken by the defendants relating to the senior preferred stock purchase agreements and the conservatorships of Fannie Mae and Freddie Mac. Some of these lawsuits also contain claims against Fannie Mae and Freddie Mac. The legal claims being advanced by one or more of these lawsuits include challenges to the net worth sweep dividend provisions of the senior preferred stock that were implemented pursuant to the August 2012 amendments to the agreements, the payment of dividends to Treasury under the net worth sweep dividend provisions, and FHFA's decision to require Fannie Mae and Freddie Mac to draw funds from Treasury in order to pay dividends to

Treasury prior to the August 2012 amendments. The plaintiffs seek various forms of equitable and injunctive relief, including rescission of the August 2012 amendments, as well as damages.

On September 30, 2014, the U.S. District Court for the District of Columbia dismissed all but one of the cases then pending before that court. The plaintiffs in each of the dismissed cases filed a notice of appeal and on October 27, 2014, the U.S. Court of Appeals for the D.C. Circuit consolidated these appeals. The plaintiffs in the case that was not dismissed by the court voluntarily dismissed their lawsuit on October 31, 2014. On February 3, 2015, the U.S. District Court for the Southern District of Iowa dismissed the case pending before it. On April 15, 2016, the U.S. Court of Appeals for the D.C. Circuit heard oral argument on the consolidated appeals. On September 9, 2016, the U.S. District Court for the Eastern District of Kentucky dismissed the case pending before it. The plaintiff in that case filed a notice of appeal and the appeal was docketed on November 17, 2016. A case filed in the U.S. District Court for the District of Columbia in June 2016, after the dismissal of the initial set of cases filed in that court, was dismissed on December 19, 2016. The matters where Fannie Mae is a named defendant are described below or in “Note 18, Commitments and Contingencies.”

Fannie Mae is a nominal defendant in two actions filed against the United States in the U.S. Court of Federal Claims: Fisher v. United States of America, filed on December 2, 2013, and Rafter v. United States of America, filed on August 14, 2014. Plaintiffs in these cases allege that the net worth sweep dividend provisions of the senior preferred stock that were implemented pursuant to the August 2012 amendment to the senior preferred stock purchase agreement constitute a taking of Fannie Mae’s property without just compensation in violation of the U.S. Constitution. The Fisher plaintiffs are pursuing this claim derivatively on behalf of Fannie Mae, while the Rafter plaintiffs are pursing the claim directly against the United States. Plaintiffs in Rafter also allege a derivative claim that the government breached an implied contract with Fannie Mae’s Board of Directors by implementing the net worth sweep dividend provisions. Plaintiffs in Fisher request just compensation to Fannie Mae in an unspecified amount. Plaintiffs in Rafter seek just compensation for themselves on their constitutional claim and payment of damages to Fannie Mae on their derivative claim for breach of an implied contract. The United States filed a motion to dismiss the Fisher case on January 23, 2014; however, the court has stayed proceedings in this case until discovery in a related case, Fairholme Funds v. United States, is complete and the court sets a date for the Fairholme Funds plaintiffs to respond to the government’s motion to dismiss filed in that case. In the Rafter case, the court has ordered the government to file a response to the complaint within sixty days after discovery is complete in the Fairholme Funds case.

Fannie Mae is also a nominal defendant in a case filed against FHFA and Treasury in the U.S. District Court for the District of Delaware: Jacobs v. FHFA, filed on August 17, 2015. The plaintiffs allege that the net worth sweep dividend provisions of the senior preferred stock that were implemented pursuant to the August 2012 amendments to the agreements violate Delaware law. The plaintiffs are pursuing this claim derivatively on behalf of Fannie Mae and directly against the government. The plaintiffs have also alleged direct breach of contract claims and breach of fiduciary duty claims against the government. The government filed motions to dismiss the case on November 13, 2015.

On March 14, 2016, Timothy Pagliara filed a lawsuit against Fannie Mae in the Delaware Court of Chancery: Pagliara v. Federal National Mortgage Association. The plaintiff owns Fannie Mae preferred stock and seeks access to Fannie Mae’s books and records under a provision of Delaware state law. The plaintiff alleges that he is entitled to inspect Fannie Mae’s books and records in order to investigate potential breaches of duties to stockholders related to the net worth sweep dividend provisions of the senior preferred stock that were implemented pursuant to the August 2012 amendment to the senior preferred stock purchase agreement, as well as Fannie Mae’s involvement in the common securitization platform, Common Securitization Solutions, LLC, and the single security. On March 25, 2016, Fannie Mae and FHFA removed the case to the U.S. District Court for the District of Delaware. On July 18, 2016, FHFA filed a motion to substitute itself for the plaintiff.

LIBOR Lawsuit

On October 31, 2013, Fannie Mae filed a lawsuit in the U.S. District Court for the Southern District of New York against Barclays Bank PLC, UBS AG, The Royal Bank of Scotland Group PLC, The Royal Bank of Scotland PLC, Deutsche Bank AG, Credit Suisse Group AG, Credit Suisse International, Bank of America Corp., Bank of America, N.A., Citigroup Inc., Citibank, N.A., J.P. Morgan Chase & Co., J.P. Morgan Chase Bank, N.A., Coöperative Centrale

Raiffeisen-Boerenleenbank B.A., the British Bankers Association (the "BBA") and BBA LIBOR Ltd. alleging they manipulated LIBOR. On October 6, 2014, Fannie Mae filed an amended complaint alleging, among other things, that the banks submitted false borrowing costs to the BBA in order to suppress

LIBOR. The amended complaint seeks compensatory and punitive damages based on claims for breach of contract, breach of the implied duty of good faith and fair dealing, unjust enrichment, fraud and conspiracy to commit fraud. The defendants filed motions to dismiss the lawsuit on November 5, 2014. On August 4, 2015, the court decided defendants' motions to dismiss, granting in part and denying in part the relief sought. The court ruled that Fannie Mae had adequately pled its fraud, breach of contract and unjust enrichment claims against the defendants, but that the applicable statute of limitations periods precluded some of our contract and unjust enrichment claims against the defendants from proceeding. In addition, the court dismissed the BBA and Credit Suisse Group AG from the lawsuit.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common stock is traded in the over-the-counter market and quoted on the OTC Bulletin Board under the ticker symbol "FNMA." The transfer agent and registrar for our common stock is Computershare Trust Company, N.A., P.O. Box 30170, College Station, TX 77842-3170.

Common Stock Data

The following table displays, for the periods indicated, the high and low prices per share of our common stock as reported in the Bloomberg Financial Markets service. These prices represent high and low trade prices. No dividends were declared on shares of our common stock during the periods indicated.

Quarter	High	Low
2015		
First Quarter	$3.51	$2.05
Second Quarter	2.96	2.27
Third Quarter	2.72	2.00
Fourth Quarter	2.70	1.58
2016		
First Quarter	$1.83	$0.98
Second Quarter	2.48	1.26
Third Quarter	2.08	1.57
Fourth Quarter	5.00	1.61

Dividends

Our payment of dividends is subject to the following restrictions:

Restrictions Relating to Conservatorship. Our conservator announced on September 7, 2008 that we would not pay any dividends on the common stock or on any series of preferred stock, other than the senior preferred stock. In addition, FHFA's regulations relating to conservatorship and receivership operations prohibit us from paying any dividends while in conservatorship unless authorized by the Director of FHFA. The Director of FHFA has directed us to make dividend payments on the senior preferred stock on a quarterly basis.

Restrictions Under Senior Preferred Stock Purchase Agreement. The senior preferred stock purchase agreement prohibits us from declaring or paying any dividends on Fannie Mae equity securities (other than the senior preferred stock) without the prior written consent of Treasury. In addition, in 2012 the terms of the senior preferred stock purchase agreement and the senior preferred stock were amended to require that we pay Treasury each quarter any dividends declared consisting of the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds an applicable capital reserve amount, which will decrease to zero in 2018. As a result, our net income is not available to common stockholders. For more information on the terms of the senior preferred stock purchase agreement and senior preferred stock, see "Business—Conservatorship and

Treasury Agreements—Treasury Agreements—Senior Preferred Stock Purchase Agreement and Related Issuance of Senior Preferred Stock and Common Stock Warrant."

Additional Restrictions Relating to Preferred Stock. Payment of dividends on our common stock is also subject to the prior payment of dividends on our preferred stock and our senior preferred stock. Payment of dividends on all outstanding preferred stock, other than the senior preferred stock, is also subject to the prior payment of dividends on the senior preferred stock.

Statutory Restrictions. Under the GSE Act, FHFA has authority to prohibit capital distributions, including payment of dividends, if we fail to meet our capital requirements. If FHFA classifies us as significantly undercapitalized, approval of the Director of FHFA is required for any dividend payment. Under the Charter Act and the GSE Act, we are not permitted to make a capital distribution if, after making the distribution, we would be undercapitalized. The Director of FHFA, however, may permit us to repurchase shares if the repurchase is made in connection with the issuance of additional shares or obligations in at least an equivalent amount and will reduce our financial obligations or otherwise improve our financial condition.

Holders

As of January 31, 2017, we had approximately 12,000 registered holders of record of our common stock. In addition, as of January 31, 2017, Treasury held a warrant giving it the right to purchase shares of our common stock equal to 79.9% of the total number of shares of our common stock outstanding on a fully diluted basis on the date of exercise.

Recent Sales of Unregistered Securities

Under the terms of our senior preferred stock purchase agreement with Treasury, we are prohibited from selling or issuing our equity interests, other than as required by (and pursuant to) the terms of a binding agreement in effect on September 7, 2008, without the prior written consent of Treasury. During the quarter ended December 31, 2016, we did not issue any equity securities.

Information about Certain Securities Issuances by Fannie Mae

Pursuant to SEC regulations, public companies are required to disclose certain information when they incur a material direct financial obligation or become directly or contingently liable for a material obligation under an off-balance sheet arrangement. The disclosure must be made in a current report on Form 8-K under Item 2.03 or, if the obligation is incurred in connection with certain types of securities offerings, in prospectuses for that offering that are filed with the SEC.

Because the securities we issue are exempted securities under the Securities Act of 1933, we do not file registration statements or prospectuses with the SEC with respect to our securities offerings. To comply with the disclosure requirements of Form 8-K relating to the incurrence of material financial obligations, we report our incurrence of these types of obligations either in offering circulars or prospectuses (or supplements thereto) that we post on our website or in a current report on Form 8-K that we file with the SEC, in accordance with a "no-action" letter we received from the SEC staff in 2004. In cases where the information is disclosed in a prospectus or offering circular posted on our website, the document will be posted on our website within the same time period that a prospectus for a non-exempt securities offering would be required to be filed with the SEC.

The website address for disclosure about our debt securities is www.fanniemae.com/debtsearch. From this address, investors can access the offering circular and related supplements for debt securities offerings under Fannie Mae's universal debt facility, including pricing supplements for individual issuances of debt securities.

Disclosure about our obligations pursuant to some of the MBS we issue, some of which may be off-balance sheet obligations, can be found at www.fanniemae.com/mbsdisclosure. From this address, investors can access information and documents about our MBS, including prospectuses and related prospectus supplements.

We are providing our website address solely for your information. Information appearing on our website is not incorporated into this report.

Our Purchases of Equity Securities

We did not repurchase any of our equity securities during the fourth quarter of 2016.

Selected Financial Data

Item 6. Selected Financial Data

The selected consolidated financial data displayed below are summarized from our results of operations for the five-year period ended December 31, 2016, as well as selected consolidated balance sheet data as of the end of each year within this five-year period. This data should be reviewed in conjunction with the audited consolidated financial statements and related notes and with the MD&A included in this annual report on Form 10-K.

	For the Year Ended December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
Statement of operations data:					
Net revenues[1]	$22,261	$22,757	$25,855	$26,334	$22,988
Net income attributable to Fannie Mae	12,313	10,954	14,208	83,963	17,224
New business purchase data:					
New business purchases[2]	$637,425	$515,541	$409,834	$759,535	$867,387
Performance ratios:					
Net interest yield[3]	0.67 %	0.68 %	0.63 %	0.70 %	0.68 %
Credit loss ratio (in basis points)[4]	12.0 bps	35.0 bps	19.4 bps	14.7 bps	48.2 bps

	As of December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
Balance sheet data:					
Investments in securities	$48,925	$ 60,138	$ 62,158	$ 68,939	$ 103,876
Mortgage loans, net of allowance[5]	3,079,753	3,019,644	3,019,494	3,026,240	2,949,406
Total assets	3,287,968	3,221,917	3,248,176	3,270,108	3,222,422
Short-term debt	35,579	71,950	106,572	74,449	108,716
Long-term debt	3,226,737	3,125,721	3,115,583	3,160,074	3,080,801
Total liabilities	3,281,897	3,217,858	3,244,456	3,260,517	3,215,198
Senior preferred stock	117,149	117,149	117,149	117,149	117,149
Preferred stock	19,130	19,130	19,130	19,130	19,130
Total Fannie Mae stockholders' equity	6,071	4,030	3,680	9,541	7,183
Net worth surplus	6,071	4,059	3,720	9,591	7,224

Selected Financial Data

	As of December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
Book of business data:					
Mortgage credit book of business[6]	$3,102,503	$3,065,955	$3,091,102	$3,136,765	$3,116,842
Guaranty book of business[7]	3,092,271	3,043,141	3,056,219	3,090,538	3,039,457
Credit quality:					
Total troubled debt restructurings on accrual status	$127,494	$140,964	$145,294	$141,227	$136,064
Total nonaccrual loans[8]	44,450	49,412	64,959	83,606	114,833
Total loss reserves	23,929	28,774	38,173	47,290	62,629
Total loss reserves as a percentage of total guaranty book of business	0.77 %	0.95 %	1.25 %	1.53 %	2.06 %
Total loss reserves as a percentage of total nonaccrual loans	53.83	58.23	58.76	56.56	54.54

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(1) Consists of net interest income and fee and other income.

(2) New business purchases consist of single-family and multifamily whole mortgage loans purchased during the period and single-family and multifamily mortgage loans underlying Fannie Mae MBS issued during the period pursuant to lender swaps.

(3) Calculated based on net interest income for the period divided by the average balance of total interest-earning assets during the period, expressed as a percentage.

(4) Consists of (a) charge-offs, net of recoveries and (b) foreclosed property expense (income) for the reporting period (adjusted to exclude the impact of fair value losses resulting from credit-impaired loans acquired from MBS trusts) divided by the average guaranty book of business during the period, expressed in basis points. See "MD&A—Consolidated Results of Operations—Credit-Related Income (Expense)—Credit Loss Performance Metrics" for discussion of how our credit loss metrics are calculated. Our credit loss ratio in 2015 was impacted by charge-offs of (1) $1.8 billion in loans held for investment and $724 million in preforeclosure property taxes and insurance receivable that we recognized on January 1, 2015 upon our adoption of the Advisory Bulletin and (2) $1.1 billion in accrued interest receivable that we recognized on January 1, 2015 upon our adoption of a change in accounting policy related to loans placed on nonaccrual status. See "Note 1, Summary of Significant Accounting Policies" for additional information.

(5) Mortgage loans consist solely of domestic residential real-estate mortgages.

(6) Refers to the sum of the unpaid principal balance of: (a) mortgage loans of Fannie Mae; (b) mortgage loans underlying Fannie Mae MBS; (c) non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio; and (d) other credit enhancements that we provide on mortgage assets.

(7) Reflects mortgage credit book of business less non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

(8) We generally classify single-family loans as nonaccrual when the payment of principal or interest on the loan is 60 days or more past due. Multifamily loans are placed on nonaccrual status when the loan becomes 90 days or more past due according to its contractual terms or is deemed individually impaired. See "Note 1, Summary of Significant Accounting Policies" for more information about our policies on nonaccrual loans.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read this MD&A in conjunction with our consolidated financial statements as of December 31, 2016 and related notes to the consolidated financial statements, and with "Business—Executive Summary." Please also see "Glossary of Terms Used in This Report."

Critical Accounting Policies and Estimates

The preparation of financial statements in accordance with GAAP requires management to make a number of judgments, estimates and assumptions that affect the reported amount of assets, liabilities, income and expenses in the consolidated financial statements. Understanding our accounting policies and the extent to which we use management judgment and estimates in applying these policies is integral to understanding our financial statements. We describe our most significant accounting policies in "Note 1, Summary of Significant Accounting Policies."

We evaluate our critical accounting estimates and judgments required by our policies on an ongoing basis and update them as necessary based on changing conditions. Management has discussed any significant changes in judgments and assumptions in applying our critical accounting policies with the Audit Committee of our Board of Directors. See "Risk Factors" for a discussion of the risks associated with the need for management to make judgments and estimates in applying our accounting policies and methods. We have identified two of our accounting policies as critical because they involve significant judgments and assumptions about highly complex and inherently uncertain matters, and the use of reasonably different estimates and assumptions could have a material impact on our reported results of operations or financial condition: fair value measurement and combined loss reserves.

Fair Value Measurement

The use of fair value to measure our assets and liabilities is fundamental to our financial statements and our fair value measurement is a critical accounting estimate because we account for and record a portion of our assets and liabilities at fair value. In determining fair value, we use various valuation techniques. We describe the valuation techniques and inputs used to determine the fair value of our assets and liabilities and disclose their carrying value and fair value in "Note 17, Fair Value."

The fair value accounting rules provide a three-level fair value hierarchy for classifying financial instruments. This hierarchy is based on whether the inputs to the valuation techniques used to measure fair value are observable or unobservable. Each asset or liability is assigned to a level based on the lowest level of any input that is significant to its fair value measurement. The three levels of the fair value hierarchy are described below:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: Observable market-based inputs, other than quoted prices in active markets for identical assets or liabilities.

Level 3: Unobservable inputs.

The majority of the financial instruments that we report at fair value in our consolidated financial statements fall within the Level 2 category and are valued primarily utilizing inputs and assumptions that are observable in the marketplace, that can be derived from observable market data or that can be corroborated by recent trading activity of similar instruments with similar characteristics. For example, we generally request non-binding prices from at least three independent pricing services to estimate the fair value of our trading and available-for-sale securities at an individual security level. We use the average of these prices to determine the fair value.

In the absence of such information or if we are not able to corroborate these prices by other available, relevant market information, we estimate their fair values based on single source quotations from brokers or dealers or by using internal calculations or discounted cash flow techniques that incorporate inputs, such as prepayment rates, discount rates and delinquency, default and cumulative loss expectations, that are implied by market prices for similar securities and collateral structure types. Because these valuation techniques rely on significant unobservable inputs, the fair value estimation is classified as Level 3. The process for determining fair value using unobservable inputs is generally more subjective and involves a high degree of management judgment and assumptions. These assumptions may have a significant effect on our estimates of fair value, and the use of different assumptions as well as changes in market conditions could have a material effect on our results of operations or financial condition.

Fair Value Hierarchy—Level 3 Assets and Liabilities

The assets and liabilities that we have classified as Level 3 consist primarily of financial instruments for which there is limited market activity and therefore little or no price transparency. As a result, the valuation techniques that we use to estimate the fair value of Level 3 instruments involve significant unobservable inputs, which generally are more subjective and involve a high degree of management judgment and assumptions. Our Level 3 assets and liabilities consist of certain mortgage-backed securities and residual interests, certain mortgage loans, acquired property, certain long-term debt arrangements and certain highly structured, complex derivative instruments. We provide a detailed discussion of our Level 3 assets and liabilities, including the valuation techniques and significant unobservable inputs used to measure the fair value of these instruments, in “Note 17, Fair Value.”

Valuation Control Processes

We have control processes that are designed to ensure that our fair value measurements are appropriate and reliable, that they are based on observable inputs wherever possible and that our valuation approaches are consistently applied and the assumptions used are reasonable. Our control processes consist of a framework that provides for a segregation of duties and oversight of our fair value methodologies and valuations, as well as validation procedures. We provide a detailed discussion of our valuation control processes in “Note 17, Fair Value.”

Combined Loss Reserves

Our combined loss reserves consist of the following components:

- Allowance for loan losses
- Reserve for guaranty losses

These components can be further allocated into our single-family and multifamily loss reserves.

We maintain an allowance for loan losses for loans classified as held for investment, including both loans we hold in our portfolio and loans held in consolidated Fannie Mae MBS trusts. We maintain a reserve for guaranty losses for loans held in unconsolidated Fannie Mae MBS trusts we guarantee and loans we have guaranteed under long-term standby commitments and other credit enhancements we have provided. These amounts, which we collectively refer to as our combined loss reserves, represent probable losses incurred related to loans in our guaranty book of business, including concessions granted to borrowers upon modifications of their loans, as of the balance sheet date.

The allowance for loan losses is a valuation allowance that reflects an estimate of incurred credit losses related to our loans held for investment. The reserve for guaranty losses is a liability account in our consolidated balance sheets that reflects an estimate of incurred credit losses related to our guaranty to each unconsolidated Fannie Mae MBS trust that we will supplement amounts received by the Fannie Mae MBS trust as required to permit timely payments of principal and interest on the related Fannie Mae MBS. As a result, the guaranty reserve considers not only the principal and interest due on the loan at the current balance sheet date, but also an estimate of any additional interest payments due to the trust from the current balance sheet date until the point of loan acquisition or foreclosure. Our loss reserves consist of a specific loss reserve for individually impaired loans and a collective loss reserve for all other loans.

We have an established process, using analytical tools, benchmarks and management judgment, to determine our loss reserves. Our process for determining our loss reserves is complex and involves significant management judgment. Although our loss reserve process benefits from extensive historical loan performance data, this process is subject to risks and uncertainties, including a reliance on historical loss information that may not be representative of current conditions. We continually monitor prepayment, delinquency, modification, default and loss severity trends and periodically make changes in our historically developed assumptions and estimates as necessary to better reflect present conditions, including current trends in borrower risk, general economic trends, changes in risk management practices, and changes in public policy and the regulatory environment. We also consider the recoveries that we expect to receive on mortgage insurance and other loan-specific credit enhancements entered into contemporaneously with and in contemplation of a guaranty or loan purchase transaction, as such recoveries reduce the severity of the loss associated with defaulted loans.

We provide more detailed information on our accounting for the allowance for loan losses in "Note 1, Summary of Significant Accounting Policies."

Single-Family Loss Reserves

We establish a specific single-family loss reserve for individually impaired loans, which includes loans we restructure in troubled debt restructurings ("TDRs"), certain nonperforming loans in MBS trusts and acquired credit-impaired loans that have been further impaired subsequent to acquisition. The single-family loss reserve for individually impaired loans represents the majority of our single-family loss reserves due to the high volume of restructured loans. We typically measure impairment based on the difference between our recorded investment in the loan and the present value of the estimated cash flows we expect to receive, which we calculate using the effective interest rate of the original loan or the effective interest rate at acquisition for an acquired credit-impaired loan. However, when foreclosure is probable on an individually impaired loan, we measure impairment based on the difference between our recorded investment in the loan and the fair value of the underlying property, adjusted for the estimated discounted costs to sell the property and estimated insurance or other proceeds we expect to receive. When a loan has been restructured or modified, we measure impairment using a cash flow analysis discounted at the loan's original effective interest rate.

We establish a collective single-family loss reserve for all other single-family loans in our single-family guaranty book of business using a model that estimates the probability of default of loans to derive a loss reserve estimate given multiple factors such as: origination year, mark-to-market LTV ratio, delinquency status and loan product type. The loss severity estimates we use in determining our loss reserves reflect current available information on actual events and conditions as of each balance sheet date, including current home prices. Our loss severity estimates do not incorporate assumptions about future changes in home prices. We do, however, use recent regional historical sales and appraisal information, including the sales of our own foreclosed properties, to develop our loss severity estimates for all loan categories.

Multifamily Loss Reserves

We establish a collective multifamily loss reserve for all loans in our multifamily guaranty book of business that are not individually impaired using an internal model that applies loss factors to loans in similar risk categories. Our loss factors are developed based on our historical default and loss severity experience. Management may also apply judgment to adjust the loss factors derived from our models, taking into consideration model imprecision and specific, known events, such as current credit conditions, that may affect the credit quality of our multifamily loan portfolio but are not yet reflected in our model-generated loss factors.

We establish a specific multifamily loss reserve for multifamily loans that we determine are individually impaired. We identify multifamily loans for evaluation for impairment through a credit risk assessment process. As part of this assessment process, we stratify multifamily loans into different internal risk categories based on the credit risk inherent in each individual loan and management judgment. We categorize loan credit risk, taking into consideration available operating statements and expected cash flows from the underlying property, the estimated value of the property, the historical loan payment experience and current relevant market conditions that may impact credit quality. If we conclude that a multifamily loan is impaired, we measure the impairment based on the difference between our recorded investment in the loan and the fair value of the underlying property less the estimated discounted costs to sell the property and any lender loss sharing or other proceeds we expect to receive. When a multifamily loan is deemed individually impaired because we have modified it, we measure the impairment based on the difference between our recorded investment in the loan and the present value of expected cash flows discounted at the loan's original interest rate unless foreclosure is probable, at which time we measure impairment the same way we measure it for other individually impaired multifamily loans.

Consolidated Results of Operations

This section provides a discussion of our consolidated results of operations for the periods indicated and should be read together with our consolidated financial statements, including the accompanying notes.

Table 2: Summary of Consolidated Results of Operations

	For the Year Ended December 31,			Variance	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
	(Dollars in millions)				
Net interest income	$21,295	$21,409	$19,968	$(114)	$1,441
Fee and other income	966	1,348	5,887	(382)	(4,539)
Net revenues	22,261	22,757	25,855	(496)	(3,098)
Investment gains, net	1,256	1,336	936	(80)	400
Fair value losses, net	(1,081)	(1,767)	(4,833)	686	3,066
Administrative expenses	(2,741)	(3,050)	(2,777)	309	(273)
Credit-related income (expense):					
Benefit for credit losses	2,155	795	3,964	1,360	(3,169)
Foreclosed property expense	(644)	(1,629)	(142)	985	(1,487)
Total credit-related income (expense)	1,511	(834)	3,822	2,345	(4,656)
TCCA fees	(1,845)	(1,621)	(1,375)	(224)	(246)
Other expenses, net	(1,028)	(613)	(478)	(415)	(135)
Income before federal income taxes	18,333	16,208	21,150	2,125	(4,942)
Provision for federal income taxes	(6,020)	(5,253)	(6,941)	(767)	1,688
Net income	12,313	10,955	14,209	1,358	(3,254)
Less: Net income attributable to noncontrolling interest	—	(1)	(1)	1	—
Net income attributable to Fannie Mae	$12,313	$10,954	$14,208	$1,359	$(3,254)
Total comprehensive income attributable to Fannie Mae	$11,665	$10,628	$14,738	$1,037	$(4,110)

Net Interest Income

We have two primary sources of net interest income: (1) the guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties; and (2) the difference between interest income earned on the assets in our retained mortgage portfolio and the interest expense associated with the debt that funds those assets. Guaranty fees consist of two primary components: (1) base guaranty fees that we receive over the life of the loan; and (2) upfront fees that we receive at the time of loan acquisition primarily related to single-family loan level pricing adjustments and other fees we receive from lenders, which are amortized over the contractual life of the loan. We recognize almost all of our guaranty fee revenue in net interest income due to the consolidation of the substantial majority of loans underlying our Fannie Mae MBS in consolidated trusts on our balance sheet. Those guaranty fees are the primary component of the difference between the interest income on loans in consolidated trusts and the interest expense on the debt of consolidated trusts.

Table 3 displays an analysis of our net interest income, average balances, and related yields earned on assets and incurred on liabilities for the periods indicated. For most components of the average balances, we use a daily weighted average of amortized cost. When daily average balance information is not available, such as for mortgage loans, we use monthly averages. Table 4 displays the change in our net interest income between periods and the extent to which that variance is attributable to: (1) changes in the volume of our interest-earning assets and interest-bearing liabilities or (2) changes in the interest rates of these assets and liabilities.

Table 3: Analysis of Net Interest Income and Yield

	For the Year Ended December 31,								
	2016			2015			2014		
	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid	Average Balance	Interest Income/ Expense	Average Rates Earned/Paid
	(Dollars in millions)								
Interest-earning assets:									
Mortgage loans of Fannie Mae	$228,786	$9,376	4.10%	$257,870	$9,728	3.77%	$286,042	$10,285	3.60%
Mortgage loans of consolidated trusts	2,838,453	95,266	3.36	2,794,050	97,971	3.51	2,769,418	101,835	3.68
Total mortgage loans(1)	3,067,239	104,642	3.41	3,051,920	107,699	3.53	3,055,460	112,120	3.67
Mortgage-related securities	69,561	2,743	3.94	109,749	4,880	4.45	143,934	6,713	4.66
Elimination of Fannie Mae MBS held in retained mortgage portfolio	(48,131)	(1,868)	3.88	(76,250)	(3,351)	4.39	(98,778)	(4,572)	4.63
Total mortgage-related securities, net	21,430	875	4.08	33,499	1,529	4.56	45,156	2,141	4.74
Non-mortgage-related securities(2)	54,355	261	0.48	46,498	71	0.15	35,184	34	0.10
Federal funds sold and securities purchased under agreements to resell or similar arrangements	27,917	141	0.51	31,173	60	0.19	33,631	32	0.10
Advances to lenders	4,583	102	2.23	4,063	83	2.04	3,454	78	2.26
Total interest-earning assets	$3,175,524	$106,021	3.34%	$3,167,153	$109,442	3.46%	$3,172,885	$114,405	3.61%
Interest-bearing liabilities:									
Short-term funding debt	$51,270	$202	0.39%	$88,885	$145	0.16%	$86,866	$92	0.11%
Long-term funding debt	305,945	6,946	2.27	339,181	7,561	2.23	398,876	8,508	2.13
Total funding debt	357,215	7,148	2.00	428,066	7,706	1.80	485,742	8,600	1.77
Debt securities of consolidated trusts	2,883,364	79,446	2.76	2,845,123	83,678	2.94	2,824,638	90,409	3.20
Elimination of Fannie Mae MBS held in retained mortgage portfolio	(48,131)	(1,868)	3.88	(76,250)	(3,351)	4.39	(98,778)	(4,572)	4.63
	2,835,233	77,578	2.74	2,768,873	80,327	2.90	2,725,860	85,837	3.15

Total debt securities of consolidated trusts held by third parties									
Total interest-bearing liabilities	$3,192,448	$84,726	2.65%	$3,196,939	$88,033	2.75%	$3,211,602	$94,437	2.94%
Net interest income/net interest yield		$21,295	0.67%		$21,409	0.68%		$19,968	0.63%

	As of December 31,		
	2016	2015	2014
Selected benchmark interest rates:			
3-month LIBOR	1.00%	0.61%	0.26%
2-year swap rate	1.45	1.18	0.90
5-year swap rate	1.98	1.74	1.77
10-year swap rate	2.34	2.19	2.28
30-year Fannie Mae MBS par coupon rate	3.13	3.00	2.83

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(1) Average balance includes mortgage loans on nonaccrual status. Typically, interest income on nonaccrual mortgage loans is recognized when cash is received. Interest income not recognized for loans on nonaccrual status was $1.3 billion, $1.6 billion and $1.8 billion for the years ended December 31, 2016, 2015 and 2014, respectively.

(2) Includes cash equivalents.

Table 4: Rate/Volume Analysis of Changes in Net Interest Income

	2016 vs. 2015			2015 vs. 2014		
	Total Variance	Variance Due to:[1] Volume	Rate	Total Variance	Variance Due to:[1] Volume	Rate
	(Dollars in millions)					
Interest income:						
Mortgage loans of Fannie Mae	$(352)	$(1,151)	$799	$(557)	$(1,046)	$489
Mortgage loans of consolidated trusts	(2,705)	1,539	(4,244)	(3,864)	899	(4,763)
Total mortgage loans	(3,057)	388	(3,445)	(4,421)	(147)	(4,274)
Total mortgage-related securities, net	(654)	(506)	(148)	(612)	(532)	(80)
Non-mortgage-related securities[2]	190	14	176	37	13	24
Federal funds sold and securities purchased under agreements to resell or similar arrangements	81	(7)	88	28	(2)	30
Advances to lenders	19	11	8	5	13	(8)
Total interest income	$(3,421)	$(100)	$(3,321)	$(4,963)	$(655)	$(4,308)
Interest expense:						
Short-term funding debt	$57	$(81)	$138	$53	$2	$51
Long-term funding debt	(615)	(752)	137	(947)	(1,317)	370
Total funding debt	(558)	(833)	275	(894)	(1,315)	421
Total debt securities of consolidated trusts held by third parties	(2,749)	2,238	(4,987)	(5,510)	1,651	(7,161)
Total interest expense	$(3,307)	$1,405	$(4,712)	$(6,404)	$336	$(6,740)
Net interest income	$(114)	$(1,505)	$1,391	$1,441	$(991)	$2,432

(1) Combined rate/volume variances are allocated to both rate and volume based on the relative size of each variance.
(2) Includes cash equivalents.

Net interest income and net interest yield decreased in 2016 compared with 2015 primarily due to a decline in the average balance of our retained mortgage portfolio as we continued to reduce this portfolio pursuant to the requirements of our senior preferred stock purchase agreement with Treasury and FHFA's additional portfolio cap. The average balance of our retained mortgage portfolio was 19% lower in 2016 compared with 2015. See "Retained Mortgage Portfolio" for more information about our retained mortgage portfolio. The decrease in net interest income due to the decline in our portfolio was almost entirely offset by an increase in guaranty fee income primarily driven by: (1) loans with higher base guaranty fees comprising a larger part of our guaranty book of business in 2016 than in 2015; and (2) an increase in amortization income in 2016 as a lower interest rate environment during the first nine months of the year increased prepayments on mortgage loans of consolidated trusts, which accelerated the amortization of the cost basis adjustments on the loans and related debt.

Net interest income and net interest yield increased in 2015 compared with 2014 due to an increase in guaranty fee income primarily driven by: (1) an increase in amortization income as the lower interest rate environment in the first half of 2015 increased prepayments on mortgage loans of consolidated trusts, which accelerated the amortization of cost basis adjustments on the loans and related debt; and (2) loans with higher base guaranty fees comprising a larger part of our guaranty book of business in 2015 than in 2014. The increase in net interest income due to higher guaranty fee income was partially offset by a decline in the average balance of our retained mortgage portfolio, as we reduced the average balance of our retained portfolio by 15% in 2015. The increase in net interest yield was partially offset by the decline in the percentage of net interest income from our retained mortgage portfolio, which has a higher net interest yield than the net interest yield from guaranty fees.

We initially recognize mortgage loans and debt of consolidated trusts in our consolidated balance sheets at fair value. We recognize the difference between: (1) the initial fair value of the consolidated trust's mortgage loans and debt and (2) the unpaid principal balance of these mortgage loans and debt as cost basis adjustments in our consolidated balance sheets. We amortize cost basis adjustments, including premiums and discounts on mortgage loans and securities, as a yield adjustment over the contractual life of the loan or security as a component of net interest income. Net unamortized premiums on debt of consolidated trusts exceeded net unamortized premiums on the related mortgage loans of consolidated trusts by $34.7 billion as of December 31, 2016, compared with $31.3 billion as of December 31, 2015. The amortization of this net premium position will contribute to our net interest income over time.

We had $10.4 billion in net unamortized discounts and other cost basis adjustments on mortgage loans of Fannie Mae included in our consolidated balance sheets as of December 31, 2016, compared with $11.8 billion as of December 31, 2015. This net discount position on mortgage loans was primarily recorded upon the acquisition of credit-impaired loans and the extent to which we may record them as income in future periods will be based on the actual performance of the loans.

Fee and Other Income

Fee and other income includes transaction fees, multifamily fees, technology fees and other miscellaneous income. Fee and other income decreased in 2016 compared with 2015 primarily due to lower multifamily fees in 2016 driven by a decrease in yield maintenance income. In addition, we recognized lower technology fees in 2016 as a result of eliminating fees charged to our customers for using our Desktop Underwriter and Desktop Originator systems beginning in June 2015.

Fee and other income decreased in 2015 compared with 2014 primarily due to higher revenue recognized in 2014 as a result of settlement agreements resolving certain lawsuits relating to PLS sold to us.

Investment Gains, Net

Investment gains, net primarily includes gains and losses recognized from the sale of available-for-sale (“AFS”) securities, sale of loans, gains and losses recognized on the consolidation and deconsolidation of securities, net other-than-temporary impairments recognized on our investments, and lower of cost or fair value adjustments on HFS loans. Investment gains, net in 2016, 2015 and 2014 were primarily driven by the sale of AFS securities.

Investment gains increased in 2015 compared with 2014 primarily due to higher sales volume of non-agency mortgage-related securities in 2015.

Fair Value Losses, Net

Table 5 displays the components of our fair value gains and losses.

Table 5: Fair Value Losses, Net

	For the Year Ended December 31,		
	2016	2015	2014
	(Dollars in millions)		
Risk management derivatives fair value gains (losses) attributable to:			
Net contractual interest expense accruals on interest rate swaps	$(1,125)	$(960)	$(1,062)
Net change in fair value during the period	2	(160)	(3,562)
Total risk management derivatives fair value losses, net	(1,123)	(1,120)	(4,624)
Mortgage commitment derivatives fair value gains (losses), net	288	(393)	(1,140)
Total derivatives fair value losses, net	(835)	(1,513)	(5,764)
Trading securities gains (losses), net	28	(368)	485
CAS debt gains (losses), net	(645)	28	221
Other, net[1]	371	86	225
Fair value losses, net	$(1,081)	$(1,767)	$(4,833)

[1] Consists of fair value gains and losses on non-CAS debt and mortgage loans.

Risk Management Derivatives Fair Value Losses, Net

Risk management derivative instruments are an integral part of our interest rate risk management strategy. We supplement our issuance of debt securities with derivative instruments to further reduce duration risk, which includes prepayment risk. We purchase option-based risk management derivatives to economically hedge prepayment risk. In cases where options obtained through callable debt issuances are not needed for risk management derivative purposes, we may sell options in the over-the-counter derivatives market in order to offset the options obtained in the callable debt. Our principal purpose in using derivatives is to manage our aggregate

interest rate risk profile within prescribed risk parameters. We generally use only derivatives that are relatively liquid and straightforward to value. We consider the cost of derivatives used in our management of interest rate risk to be an inherent part of the cost of funding and hedging our mortgage investments and economically similar to the interest expense that we recognize on the debt we issue to fund our mortgage investments.

We present, by derivative instrument type, the fair value gains and losses on our derivatives in "Note 9, Derivative Instruments."

The primary factors that may affect the fair value of our risk management derivatives include the following:

- Changes in interest rates: Our derivatives, in combination with our issuances of debt securities, are intended to offset changes in the fair value of our mortgage assets. Mortgage assets tend to increase in value when interest rates decrease and, conversely, decrease in value when interest rates rise. Pay-fixed swaps decrease in value and receive-fixed swaps increase in value as swap rates decrease (with the opposite being true when swap rates increase). Because the composition of our pay-fixed and receive-fixed derivatives varies across the yield curve, different yield curve changes (e.g., parallel, steepening or flattening) will generate different gains and losses.
- Changes in our derivative activity: As interest rates change, we are likely to rebalance our portfolio to manage our interest rate exposure. As interest rates decrease, expected mortgage prepayments are likely to increase, which reduces the duration of our mortgage investments. In this scenario, we generally will rebalance our existing portfolio to manage this risk by adding receive-fixed swaps, which shortens the duration of our liabilities. Conversely, when interest rates increase and the duration of our mortgage assets increases, we are likely to add pay-fixed swaps, which have the effect of extending the duration of our liabilities. We use derivatives to rebalance our portfolio when the duration of our mortgage assets changes as the result of mortgage purchases or sales. We also use foreign-currency swaps to manage the foreign exchange impact of our foreign currency-denominated debt issuances.
- Implied interest rate volatility: Our derivatives portfolio includes option-based derivatives, which we purchase to economically hedge the prepayment option embedded in our mortgage investments and sell to offset the options obtained through callable debt issuances when those options are not needed for risk management purposes. A key variable in estimating the fair value of option-based derivatives is implied volatility, which reflects the market's expectation of the magnitude of future changes in interest rates. Assuming all other factors are held equal, including interest rates, a decrease in implied volatility would reduce the fair value of our purchased options and an increase in implied volatility would increase the fair value of our purchased options, while having the opposite effect on the options that we have sold.
- Time value of purchased options: Intrinsic value and time value are the two primary components of an option's price. The intrinsic value is determined by the amount by which the market rate exceeds or is below the exercise, or strike rate, such that the option is in-the-money. The time value of an option is the amount by which the price of an option exceeds its intrinsic value. Time decay refers to the diminishing value of an option over time as less time remains to exercise the option.

We recognized risk management derivative fair value losses for 2016 primarily as a result of a decrease in the fair value of our pay-fixed derivatives in the first half of 2016 due to declines in longer-term swap rates during the period. These losses were partially offset by an increase in the fair value of our pay-fixed derivatives in the second half of 2016 due to an increase in longer-term swap rates during the period.

We recognized risk management derivative fair value losses in 2015 and 2014 primarily as a result of decreases in the fair value of our pay-fixed derivatives due to declines in longer-term swap rates during each year.

Because risk management derivatives are an important part of our interest rate risk management strategy, it is important to evaluate the impact of our derivatives in the context of our interest rate risk profile and in conjunction with the other mark-to-market gains and losses presented in Table 5. For additional information on our use of derivatives to manage interest rate risk, see "Risk Management—Market Risk Management, Including Interest Rate Risk Management—Interest Rate Risk Management."

Mortgage Commitment Derivatives Fair Value Gains (Losses), Net

Certain commitments to purchase or sell mortgage-related securities and to purchase single-family mortgage loans are generally accounted for as derivatives. For open mortgage commitment derivatives, we include changes in their fair value in our consolidated statements of operations and comprehensive income. When derivative

purchase commitments settle, we include the fair value of the commitment on the settlement date in the cost basis of the loan or security we purchase. When derivative commitments to sell securities settle, we include the fair value of the commitment on the settlement date in the cost basis of the security we sell. Purchases of securities issued by our consolidated MBS trusts are treated as extinguishments of debt; we recognize the fair value of the commitment on the settlement date as a component of debt extinguishment gains and losses in "Other expenses, net." Sales of securities issued by our consolidated MBS trusts are treated as issuances of consolidated debt; we recognize the fair value of the commitment on the settlement date as a component of debt in the cost basis of the debt issued.

We recognized fair value gains on our mortgage commitments in 2016 primarily due to gains on commitments to sell mortgage-related securities driven by a decrease in prices as interest rates increased during commitment periods in the fourth quarter of 2016. This was partially offset by an increase in prices as interest rates declined during the commitment periods in the first nine months of the year.

We recognized fair value losses on our mortgage commitments in 2015 and 2014 primarily due to losses on commitments to sell mortgage-related securities driven by increases in prices as interest rates decreased during the commitment periods.

CAS Debt Fair Value Gains (Losses), Net

We enter into credit risk transfer transactions, including the issuance of CAS debt, in order to reduce the economic risk to us and to taxpayers of future borrower defaults. CAS debt we issued prior to 2016 is reported at fair value as "Debt of Fannie Mae" in our consolidated balance sheets. We recognized fair value losses on CAS debt reported at fair value in 2016 primarily due to tightening spreads between CAS yields and LIBOR. We recognized fair value gains on CAS debt reported at fair value in 2015 and 2014 primarily due to widening spreads between CAS yields and LIBOR. For further discussion of our credit risk transfer transactions, see "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions."

Administrative Expenses

Administrative expenses decreased in 2016 compared with 2015 primarily due to the recognition of expenses related to the settlement of our defined benefit pension plan obligations in 2015. This settlement also caused the increase in administrative expenses in 2015 compared with 2014. The actuarial losses of $305 million, previously recorded in "Accumulated other comprehensive income," were recognized in "Administrative expenses" and the associated tax amounts were recognized in "Provision for federal income taxes" in our consolidated statements of operations and comprehensive income for the year ended December 31, 2015.

Credit-Related Income (Expense)

We refer to our provision (benefit) for loan losses and provision (benefit) for guaranty losses collectively as our "provision (benefit) for credit losses." Credit-related income (expense) consists of our provision (benefit) for credit losses and foreclosed property expense (income).

Provision (Benefit) for Credit Losses

Our total loss reserves provide for an estimate of credit losses incurred in our guaranty book of business, including concessions we granted borrowers upon modification of their loans. We establish our loss reserves through our provision for credit losses for losses that we believe have been incurred and will eventually be realized over time in our financial statements. When we reduce our loss reserves, we recognize a benefit for credit losses. When we determine that a loan is uncollectible, typically upon foreclosure or other liquidation event (such as a deed-in-lieu of foreclosure or a short-sale), we recognize a charge-off against our loss reserves. For a subset of delinquent single-family loans, we charge off the portion of the loan that is deemed uncollectible prior to foreclosure when the loans have been delinquent for a specified length of time and meet specified mark-to-market LTV ratios. We also recognize a charge-off upon the redesignation of loans from HFI to HFS. We record recoveries of previously charged-off amounts as a reduction to charge-offs.

Table 6 displays the components of our total loss reserves and our total fair value losses previously recognized on loans purchased out of unconsolidated MBS trusts reflected in our consolidated balance sheets. Because these fair value losses lowered our recorded loan balances, we have fewer inherent losses in our guaranty book of business and consequently require lower total loss reserves. For these reasons, we consider these fair value

losses as an "effective reserve," apart from our total loss reserves, to the extent that we expect to realize these amounts as credit losses on the acquired loans in the future. The fair value losses shown in Table 6 represent credit losses we expect to realize in the future or amounts that will eventually be recovered, either through net interest income for loans that cure or through foreclosed property income for loans where the sale of the collateral exceeds our recorded investment in the loan. We exclude these fair value losses from our credit loss calculation as described in "Credit Loss Performance Metrics."

Table 6: Total Loss Reserves

	As of December 31,	
	2016	2015
	(Dollars in millions)	
Allowance for loan losses	$23,465	$27,951
Reserve for guaranty losses	370	639
Combined loss reserves	23,835	28,590
Other	94	184
Total loss reserves	23,929	28,774
Fair value losses previously recognized on acquired credit impaired loans(1)	6,627	8,083
Total loss reserves and fair value losses previously recognized on acquired credit-impaired loans	$30,556	$36,857

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(1) Represents the fair value losses on loans purchased out of unconsolidated MBS trusts reflected in our consolidated balance sheets.

Table 7: Changes in Combined Loss Reserves

	For the Year Ended December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
Changes in combined loss reserves:					
Beginning balance	$28,590	$36,787	$45,295	$60,026	$73,150
Benefit for credit losses	(2,155)	(795)	(3,964)	(8,949)	(852)
Charge-offs[1]	(3,334)	(9,864)	(6,589)	(9,017)	(15,313)
Recoveries	644	1,260	1,436	2,627	1,856
Other[2]	90	1,202	609	608	1,185
Ending balance	$23,835	$28,590	$36,787	$45,295	$60,026
Allocation of combined loss reserves:					
Balance at end of each period attributable to:					
Single-family	$23,639	$28,325	$36,383	$44,705	$58,809
Multifamily	196	265	404	590	1,217
Total	$23,835	$28,590	$36,787	$45,295	$60,026
Combined loss reserves as a percentage of applicable guaranty book of business:					
Single-family	0.83 %	1.00 %	1.28 %	1.55 %	2.08 %
Multifamily	0.08	0.12	0.20	0.29	0.59
Combined loss reserves as a percentage of:					
Total guaranty book of business	0.77 %	0.94 %	1.20 %	1.47 %	1.97 %
Recorded investment in nonaccrual loans	53.62	57.86	56.63	54.20	52.31
Certain higher risk loan categories as a percentage of single-family combined loss reserves:					
2005-2008 loan vintages	81 %	81 %	81 %	84 %	85 %
Alt-A loans	23	23	25	26	27

(1) Our charge-offs for 2015 include $2.5 billion of initial charge-offs associated with our adoption of the charge-off provisions of the Advisory Bulletin, as well as $1.1 billion of charge-offs relating to a change in accounting policy for nonaccrual loans.

(2) Amounts represent changes in other loss reserves which are reflected in benefit for credit losses, charge-offs and recoveries.

The amount of our provision or benefit for credit losses may vary from period to period based on a number of factors such as changes in actual and expected home prices, fluctuations in interest rates, borrower payment behavior, the types and volumes of our loss mitigation activities, the volume of foreclosures completed, and redesignations of loans from HFI to HFS. In addition, our provision or benefit for credit losses and our loss reserves can be impacted by updates to the models, assumptions and data used in determining our allowance for loan losses.

Our benefit for credit losses increased in 2016 compared with 2015 primarily due to a smaller impact resulting from the redesignation of loans from HFI to HFS in 2016 compared with 2015.

Our benefit for credit losses decreased in 2015 compared with 2014 primarily driven by decreases in interest rates in 2014, which decreased the impairment on our individually impaired loans related to concessions provided on our modified loans and resulted in an increase in our benefit for credit losses in 2014. In addition, although home prices increased in both 2014 and 2015, home price increases had a smaller impact on our benefit for credit losses in 2015 than in 2014, primarily due to the smaller number of nonperforming loans held for investment in our guaranty book of business in 2015 as compared with 2014. Also contributing to our lower benefit for credit losses in 2015 was our redesignation of certain nonperforming single-family loans from HFI to HFS in connection with our plans to sell these loans.

We recognized a benefit for credit losses in 2016 primarily due to an increase in home prices, including distressed property valuations. Higher home prices decrease the likelihood that loans will default and reduce the amount of credit loss on loans that do default, which impacts our estimate of losses and ultimately reduces our total loss reserves and provision for credit losses. As we continue to reduce the number of single-family nonperforming and reperforming loans held for investment in our book of business, we expect changes in home prices will have a lesser impact on our provision for credit losses.

The following factors impacted our benefit for credit losses in 2015:

- Home prices increased in 2015, which contributed to our benefit for credit losses in 2015.
- We redesignated certain nonperforming single-family loans with an aggregate unpaid principal balance of $9.3 billion from HFI to HFS in 2015. Those loans were adjusted to the lower of cost or fair value, which reduced our benefit for credit losses by approximately $900 million. Those nonperforming single-family loans were redesignated to HFS as we intend to sell or have sold them.

The following factors contributed to our benefit for credit losses in 2014:

- Home prices increased in 2014.
- Mortgage interest rates declined in 2014 resulting in higher discounted cash flow projections on our individually impaired loans. Lower mortgage interest rates shorten the expected lives of modified loans, which reduces the impairment on these loans and results in a decrease in the provision for credit losses.
- We updated the model and the assumptions used to estimate cash flows for individually impaired single-family loans within our allowance for loan losses, which resulted in a decrease to our allowance for loan losses and an incremental benefit for credit losses.

We discuss our expectations regarding our future loss reserves in “Business—Executive Summary—Outlook—Loss Reserves.”

Troubled Debt Restructurings and Nonaccrual Loans

Table 8 displays the composition of loans restructured in a TDR that are on accrual status and loans on nonaccrual status. The table includes our recorded investment in HFI and HFS mortgage loans. For information on the impact of TDRs and other individually impaired loans on our allowance for loan losses, see "Note 3, Mortgage Loans." For activity related to our single-family TDRs, see "Table 27: Single-Family Troubled Debt Restructuring Activity" in "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management."

Table 8: Troubled Debt Restructurings and Nonaccrual Loans

	As of December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
TDRs on accrual status:					
Single-family	$127,353	$140,588	$144,649	$140,512	$135,196
Multifamily	141	376	645	715	868
Total TDRs on accrual status	$127,494	$140,964	$145,294	$141,227	$136,064
Nonaccrual loans:					
Single-family	$44,047	$48,821	$64,136	$81,355	$112,555
Multifamily	403	591	823	2,209	2,206
Total nonaccrual loans	$44,450	$49,412	$64,959	$83,564	$114,761
Accruing on-balance sheet loans past due 90 days or more(1)	$402	$499	$585	$719	$3,580

	For the Year Ended December 31,				
	2016	2015	2014	2013	2012
	(Dollars in millions)				
Interest related to on-balance sheet TDRs and nonaccrual loans:					
Interest income forgone(2)	$4,123	$5,227	$5,945	$6,805	$7,554
Interest income recognized(3)	6,005	6,511	6,886	6,710	7,425

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(1) Includes loans that, as of the end of each period, are 90 days or more past due and continuing to accrue interest. The majority of these amounts consists of loans insured or guaranteed by the U.S. government and loans for which we have recourse against the seller in the event of a default. Amount as of December 31, 2012 includes loans of $2.8 billion which were repurchased by the lender in January 2013 pursuant to a resolution agreement.

(2) Represents the amount of interest income we did not recognize, but would have recognized during the period for nonaccrual loans and TDRs on accrual status as of the end of each period had the loans performed according to their original contractual terms.

(3) Represents interest income recognized during the period, including the amortization of any deferred cost basis adjustments, for loans classified as either nonaccrual loans or TDRs on accrual status as of the end of each period. Includes primarily amounts accrued while the loans were performing and cash payments received on nonaccrual loans.

Foreclosed Property Expense

Foreclosed property expense decreased in 2016 compared with 2015 primarily due to a decline in the number of foreclosed properties.

Foreclosed property expense increased in 2015 compared with 2014 primarily due to higher expenses relating to property tax and insurance costs on our single-family foreclosed properties and a decrease in the amount of income from the resolution of compensatory fees and representation and warranty matters. Compensatory fees are amounts we charge our primary servicers to reimburse us for damages and losses related to certain violations of our Servicing Guide, which sets forth our policies and procedures related to servicing our single-family mortgages.

Credit Loss Performance Metrics

Our credit-related income (expense) should be considered in conjunction with our credit loss performance metrics. Our credit loss performance metrics, however, are not defined terms within GAAP and may not be calculated in the same manner as similarly titled measures reported by other companies. Because management does not view changes in the fair value of our mortgage loans as credit losses, we adjust our credit loss performance metrics for the impact associated with our acquisition of credit-impaired loans from unconsolidated MBS trusts. We also exclude interest forgone on nonaccrual loans and TDRs, other-than-temporary impairment losses resulting from deterioration in the credit quality of our mortgage-related securities and accretion of interest income on acquired credit-impaired loans from credit losses. We believe that credit loss performance metrics may be useful to investors as the losses are presented as a percentage of our book of business and have historically been used by analysts, investors and other companies within the financial services industry. Moreover, by presenting credit losses with and without the effect of fair value losses associated with the acquisition of credit-impaired loans, investors are able to evaluate our credit performance on a more consistent basis among periods. Table 9 displays the components of our credit loss performance metrics as well as our single-family and multifamily initial charge-off severity rates.

Table 9: Credit Loss Performance Metrics

	For the Year Ended December 31,					
	2016		2015		2014	
	Amount	Ratio[1]	Amount	Ratio[1]	Amount	Ratio[1]
	(Dollars in millions)					
Charge-offs, net of recoveries	$2,690	8.8 bps	$5,049	16.6 bps	$5,153	16.8 bps
Adoption of Advisory Bulletin and change in accounting policy[2]	—	—	3,555	11.7	—	—
Foreclosed property expense	644	2.1	1,629	5.3	142	0.5
Credit losses including the effect of fair value losses on acquired credit-impaired loans	3,334	10.9	10,233	33.6	5,295	17.3
Plus: Impact of acquired credit-impaired loans on charge-offs and foreclosed property expense[3]	340	1.1	442	1.4	637	2.1
Credit losses and credit loss ratio	$3,674	12.0 bps	$10,675	35.0 bps	$5,932	19.4 bps
Credit losses attributable to:						
Single-family	$3,678		$10,731		$5,978	
Multifamily[4]	(4)		(56)		(46)	
Total	$3,674		$10,675		$5,932	
Single-family initial charge-off severity rate[5]		19.7%		26.0%		19.6%
Multifamily initial charge-off severity rate[5]		14.9%		22.5%		25.1%

(1) Basis points are based on the amount for each line item presented divided by the average guaranty book of business during the period.

(2) Our charge-offs for 2015 include the initial charge-offs associated with our adoption of the charge-off provisions of the Advisory Bulletin, as well as charge-offs relating to a change in accounting policy for nonaccrual loans.

(3) Includes fair value losses from acquired credit-impaired loans.

(4) Negative credit losses are the result of recoveries on previously charged-off amounts.

(5) Single-family and multifamily rates exclude fair value losses on credit-impaired loans acquired from MBS trusts and any costs, gains or losses associated with REO after initial acquisition through final disposition. The single-family rate includes charge-offs pursuant to the provisions of the Advisory Bulletin and charge-offs of property tax and insurance receivables, while it excludes charge-offs from short sales and third-party sales. Multifamily rate is net of risk sharing agreements.

Credit losses and our credit loss ratio decreased in 2016 compared with 2015 primarily due to our adoption of the charge-off provisions of the Advisory Bulletin and a change in our accounting policy for nonaccrual loans in the first quarter of 2015. Additionally, lower charge-offs in 2016 compared with 2015 contributed to the decrease in our credit losses and credit loss ratio in 2016. See “Note 1, Summary of Significant Accounting Policies” for additional information on our adoption of the charge-off provisions of the Advisory Bulletin.

Our credit losses and credit loss ratio increased in 2015 compared with 2014 primarily due to our adoption of the charge-off provisions of the Advisory Bulletin on January 1, 2015, a change in our accounting policy for nonaccrual loans, the recognition of losses associated with the redesignation of certain nonperforming single-family loans from HFI to HFS and an increase in expenses on our single-family foreclosed properties.

We discuss our expectations regarding our future credit losses in "Business—Executive Summary—Outlook—Credit Losses."

Table 10 displays concentrations of our single-family credit losses based on geography, credit characteristics and loan vintages.

Table 10: Credit Loss Concentration Analysis

	Percentage of Single-Family Conventional Guaranty Book of Business Outstanding[1]			Percentage of Single-Family Credit Losses[2]		
	As of December 31,			For the Year Ended December 31,		
	2016	2015	2014	2016	2015	2014
Geographical distribution:						
California[3]	19 %	20 %	20 %	2 %	1 %	(1)%
Florida	6	6	6	8	21	33
Illinois	4	4	4	9	8	11
New Jersey	4	4	4	16	22	7
New York	5	5	5	18	16	5
All other states	62	61	61	47	32	45
Select higher-risk product features[4]	21	22	22	60	59	51
Vintages:[5]						
2004 and prior	5	5	7	16	12	12
2005 - 2008	8	10	12	65	78	75
2009 - 2016	87	85	81	19	10	13

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(1) Calculated based on the unpaid principal balance of loans, where we have detailed loan level information, for each category divided by the unpaid principal balance of our single-family conventional guaranty book of business as of the end of each period.

(2) Excludes the impact of recoveries resulting from resolution agreements related to representation and warranty matters and compensatory fee income related to servicing matters that have not been allocated to specific loans.

(3) Negative credit losses in 2014 are the result of recoveries on previously recognized credit losses.

(4) Includes Alt-A loans, subprime loans, interest-only loans, loans with original LTV ratios greater than 90% and loans with FICO credit scores less than 620.

(5) Credit losses on mortgage loans typically do not peak until the third through sixth years following origination; however, this range can vary based on many factors, including changes in macroeconomic conditions and foreclosure timelines.

As shown in Table 10, the majority of our credit losses in 2016 continued to be driven by loans originated in 2005 through 2008. Our credit losses in Florida, as well as credit losses on loans originated in 2005 through 2008, were higher in 2015 compared with 2016 primarily because, pursuant to the revised charge-off policy we implemented in 2015, we charged off a portion of excessively delinquent loans in this state that related to these vintages and that remained in the foreclosure process. We provide more detailed single-family credit performance information, including serious delinquency rate share and foreclosure activity, in "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management."

TCCA Fees

Pursuant to the TCCA, in 2012, FHFA directed us to increase our single-family guaranty fees by 10 basis points and remit this increase to Treasury. This TCCA-related revenue is included in “Net interest income” and the expense is recognized as “TCCA fees.” TCCA fees increased in 2016 compared with 2015, and in 2015 compared with 2014, as our book of business subject to the TCCA continued to grow. We expect the guaranty fees collected and expenses incurred under the TCCA to continue to increase in the future.

Federal Income Taxes

We recognized a provision for federal income taxes of $6.0 billion in 2016, $5.3 billion in 2015 and $6.9 billion in 2014. Our effective tax rates, which were 32.8% in 2016, 32.4% in 2015 and 32.8% in 2014, were different from the federal statutory rate of 35% primarily due to the benefits of our investments in housing projects eligible for low-income housing tax credits. See “Note 10, Income Taxes” for information on our income taxes.

Consolidated Balance Sheet Analysis

This section provides a discussion of our consolidated balance sheets as of the dates indicated and should be read together with our consolidated financial statements, including the accompanying notes.

Table 11: Summary of Consolidated Balance Sheets

	As of December 31,		
	2016	2015	Variance
	(Dollars in millions)		
Assets			
Cash and cash equivalents and federal funds sold and securities purchased under agreements to resell or similar arrangements	$55,639	$42,024	$13,615
Restricted cash	36,953	30,879	6,074
Investments in securities[1]	48,925	60,138	(11,213)
Mortgage loans:			
Of Fannie Mae	207,190	238,397	(31,207)
Of consolidated trusts	2,896,028	2,809,198	86,830
Allowance for loan losses	(23,465)	(27,951)	4,486
Mortgage loans, net of allowance for loan losses	3,079,753	3,019,644	60,109
Deferred tax assets, net	33,530	37,187	(3,657)
Other assets	33,168	32,045	1,123
Total assets	$3,287,968	$3,221,917	$66,051
Liabilities and equity			
Debt:			
Of Fannie Mae	$327,097	$386,135	$(59,038)
Of consolidated trusts	2,935,219	2,811,536	123,683
Other liabilities	19,581	20,187	(606)
Total liabilities	3,281,897	3,217,858	64,039
Equity	6,071	4,059	2,012
Total liabilities and equity	$3,287,968	$3,221,917	$66,051

(1) Includes $32.3 billion as of December 31, 2016 and $29.5 billion as of December 31, 2015 of U.S. Treasury securities that are included in our other investments portfolio, which we present in “Table 38: Cash and Other Investments Portfolio.”

Cash and Other Investments Portfolio

Our cash and other investments portfolio consists of cash and cash equivalents, securities purchased under agreements to resell or similar arrangements, and investments in U.S. Treasury securities. See “Liquidity and Capital Management—Liquidity Management—Cash and Other Investments Portfolio” for additional information on our cash and other investments portfolio.

Investments in Mortgage-Related Securities

Our investments in mortgage-related securities are classified in our consolidated balance sheets as either trading or available-for-sale and are measured at fair value. Table 12 displays the fair value of our investments in mortgage-related securities, including trading and available-for-sale securities. We classify private-label securities as Alt-A, subprime or commercial mortgage-backed securities ("CMBS") if the securities were labeled as such when issued. We have also invested in subprime private-label mortgage-related securities that we have resecuritized to include our guaranty.

Table 12: Summary of Mortgage-Related Securities at Fair Value

	As of December 31,		
	2016	2015	2014
	(Dollars in millions)		
Mortgage-related securities:			
Fannie Mae	$7,323	$9,034	$10,579
Freddie Mac	1,445	5,613	6,897
Ginnie Mae	1,160	817	642
Alt-A private-label securities	1,608	3,114	6,598
Subprime private-label securities	1,737	3,925	6,547
CMBS	1,580	3,596	3,912
Mortgage revenue bonds	1,293	3,150	4,745
Other mortgage-related securities	462	1,404	2,772
Total	$16,608	$30,653	$42,692

The decrease in mortgage-related securities at fair value in 2016 was primarily driven by higher sales volumes, as well as liquidations. We continue to reduce the size of our retained mortgage portfolio to comply with the requirements of our senior preferred stock purchase agreement with Treasury and FHFA's request to further cap our portfolio. See "Retained Mortgage Portfolio" for additional information related to the reduction in our retained mortgage portfolio. See "Note 5, Investments in Securities" for additional information on our investments in mortgage-related securities, including the composition of our trading and available-for-sale securities at amortized cost and fair value and the gross unrealized gains and losses related to our available-for-sale securities as of December 31, 2016 and 2015.

Mortgage Loans and Allowance for Loan Losses

The mortgage loans reported in our consolidated balance sheets include loans owned by Fannie Mae and loans held in consolidated trusts and are classified as either HFS or HFI. The increase in the balance of mortgage loans, net of allowance, as of December 31, 2016 compared with December 31, 2015 was driven by an increase in mortgage loans of consolidated trusts due to securitization activity from our lender swap and portfolio securitization programs and a decrease in our allowance for loan losses. Offsetting these factors was a decline in mortgage loans of Fannie Mae resulting from liquidations, portfolio securitizations and sales outpacing acquisitions. For additional information on our mortgage loans, see "Note 3, Mortgage Loans," and for changes in our allowance for loan losses, see "Note 4, Allowance for Loan Losses."

The decrease in our allowance for loan losses during 2016 was primarily driven by liquidations of mortgage loans and charge-offs, which relieved the allowance on these loans, as well as an increase in home prices. For information on our benefit for credit losses, see "Consolidated Results of Operations—Credit-Related Income (Expense)—Provision (Benefit) for Credit Losses."

Debt

Debt of Fannie Mae is the primary means of funding our mortgage investments. Debt of consolidated trusts represents the amount of Fannie Mae MBS issued from consolidated trusts and held by third-party certificateholders. We provide a summary of the activity of the debt of Fannie Mae and a comparison of the mix between our outstanding short-term and long-term debt in "Liquidity and Capital Management—Liquidity Management—Debt Funding." Also see "Note 8, Short-Term Borrowings and Long-Term Debt" for additional information on our outstanding debt.

The decrease in debt of Fannie Mae in 2016 was primarily driven by lower funding needs, as our retained mortgage portfolio decreased. The increase in the balance of debt of consolidated trusts during 2016 was primarily driven by sales of Fannie Mae MBS, which are accounted for as reissuances of debt of consolidated trusts in our consolidated balance sheets, since the MBS certificate ownership is transferred from us to a third party.

Stockholders' Equity

Our net equity increased as of December 31, 2016 compared with December 31, 2015 primarily due to our comprehensive income recognized during the year, partially offset by the payment of senior preferred stock dividends to Treasury during the year.

Retained Mortgage Portfolio

Our retained mortgage portfolio consists of mortgage loans and mortgage-related securities that we own and includes Fannie Mae MBS and non-Fannie Mae mortgage-related securities. Assets held by consolidated MBS trusts that back mortgage-related securities owned by third parties are not included in our retained mortgage portfolio.

The amount of mortgage assets that we may own is restricted by our senior preferred stock purchase agreement with Treasury and FHFA's additional cap, as described in "Business—Conservatorship and Treasury Agreements—Treasury Agreements." We reduced our retained mortgage portfolio to $272.4 billion as of December 31, 2016, below the $339.3 billion senior preferred stock purchase agreement cap and the $305.4 billion cap requested by FHFA. We plan to reduce our retained mortgage portfolio to no more than the FHFA cap of $259.6 billion as of December 31, 2017, which also would be in compliance with the senior preferred stock purchase agreement cap of $288.4 billion. Table 13 displays the unpaid principal balance of our retained mortgage portfolio.

Table 13: Retained Mortgage Portfolio

	As of December 31,	
	2016	2015
	(Dollars in millions)	
Single-family:		
Mortgage loans[1]	$181,219	$207,378
Reverse mortgages	29,443	32,849
Mortgage-related securities:		
Agency securities[2]	25,667	51,792
Fannie Mae-wrapped reverse mortgage securities	7,420	8,076
Other Fannie Mae-wrapped securities	3,773	3,864
Private-label and other securities	4,980	10,366
Total single-family mortgage-related securities[3]	41,840	74,098
Total single-family mortgage loans and mortgage-related securities	252,502	314,325
Multifamily:		
Mortgage loans[4]	9,407	13,365
Mortgage-related securities:		
Agency securities[2]	7,693	10,945
CMBS	1,567	3,515
Mortgage revenue bonds	1,185	2,953
Total multifamily mortgage-related securities[5]	10,445	17,413
Total multifamily mortgage loans and mortgage-related securities	19,852	30,778
Total retained mortgage portfolio	$272,354	$345,103

(1) Includes single-family loans restructured in a TDR that were on accrual status of $119.4 billion and $136.8 billion as of December 31, 2016 and 2015, respectively, and single-family loans on nonaccrual status of $38.7 billion and $46.6 billion as of December 31, 2016 and 2015, respectively.

(2) Includes Fannie Mae, Freddie Mac and Ginnie Mae mortgage-related securities, excluding Fannie Mae-wrapped reverse mortgage securities and other Fannie Mae-wrapped securities.

(3) The fair value of these single-family mortgage-related securities was $42.9 billion and $77.2 billion as of December 31, 2016 and 2015, respectively.

(4) Includes multifamily loans restructured in a TDR that were on accrual status of $131 million and $365 million as of December 31, 2016 and 2015, respectively, and multifamily loans on nonaccrual status of $246 million and $414 million as of December 31, 2016 and 2015, respectively.

(5) The fair value of these multifamily mortgage-related securities was $11.2 billion and $18.8 billion as of December 31, 2016 and 2015, respectively.

Our retained mortgage portfolio decreased by 21% in 2016, as we continued to reduce the size of our retained mortgage portfolio to comply with the requirements of our senior preferred stock purchase agreement with Treasury and FHFA's request to further cap our portfolio. The overall portfolio decrease was driven by higher sales volume, partially offset by increased purchases as a result of a higher volume of mortgage originations in 2016 compared with 2015.

In the third quarter of 2016, we began to securitize reperforming loans held in our retained mortgage portfolio into Fannie Mae MBS, and also began to sell Fannie Mae MBS backed by reperforming loans. Our securitization and sale of Fannie Mae MBS backed by reperforming loans provides us with more flexibility to manage our risk and reduce the size of our retained mortgage portfolio. In addition, in December 2016, we completed our first sale of reperforming whole loans as part of our ongoing effort to reduce the size of our retained mortgage portfolio.

We primarily use our retained mortgage portfolio to: (1) provide liquidity to the mortgage market and (2) support our loss mitigation activities. Previously, we also used our retained mortgage portfolio for investment purposes.

Table 14 below separates the instruments within our retained mortgage portfolio by unpaid principal balance into three categories based on each instrument's use. "Lender liquidity," which includes balances related to our whole loan conduit activity, supports our efforts to provide liquidity to the Single-Family and Multifamily mortgage markets. "Loss mitigation" supports our loss mitigation efforts through the purchase of delinquent loans from MBS trusts. "Other" represents assets that were previously purchased for investment purposes. More than half of the balance of "Other" consisted of reverse mortgage loans and Fannie Mae-wrapped reverse mortgage securities as of December 31, 2016. We expect the amount of assets in "Other" will decline over time as they liquidate, mature or are sold.

Table 14: Retained Mortgage Portfolio Profile

	As of December 31,							
	2016				2015			
	Single-Family	Multifamily	Total	% of Mortgage Credit Book of Business	Single-Family	Multifamily	Total	% of Mortgage Credit Book of Business
	(Dollars in millions)							
Lender liquidity	$36,272	$ 7,694	$43,966	2 %	$25,829	$ 16,408	$42,237	1 %
Loss mitigation	164,028	376	164,404	5	192,441	778	193,219	6
Other	52,202	11,782	63,984	2	96,055	13,592	109,647	4
Total Mortgage Credit Book of Business	$252,502	$ 19,852	$272,354	9 %	$314,325	$ 30,778	$345,103	11 %

Table 15 displays the composition of our mortgage credit book of business based on unpaid principal balance. Our single-family mortgage credit book of business accounted for 92% of our mortgage credit book of business as of December 31, 2016 and 93% of our mortgage credit book of business as of December 31, 2015. While our mortgage credit book of business includes all of our mortgage-related assets, both on- and off-balance sheet, our guaranty book of business excludes non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

Table 15: Composition of Mortgage Credit Book of Business

	As of December 31,					
	2016			2015		
	Single-Family	Multifamily	Total	Single-Family	Multifamily	Total
	(Dollars in millions)					
Mortgage loans and Fannie Mae MBS(1)	$2,838,086	$ 229,896	$3,067,982	$2,817,251	$ 198,342	$3,015,593
Unconsolidated Fannie Mae MBS, held by third parties(2)	7,795	1,159	8,954	9,818	1,226	11,044
Other credit guarantees(3)	2,193	13,142	15,335	2,652	13,852	16,504
Guaranty book of business	$2,848,074	$ 244,197	$3,092,271	$2,829,721	$ 213,420	$3,043,141
Other agency mortgage-related securities(4)	2,500	—	2,500	5,973	7	5,980
Other mortgage-related securities(5)	4,980	2,752	7,732	10,365	6,469	16,834
Mortgage credit book of business	$2,855,554	$ 246,949	$3,102,503	$2,846,059	$ 219,896	$3,065,955
Guaranty Book of Business Detail:						
Conventional guaranty book of business(6)	$2,802,572	$ 242,834	$3,045,406	$2,778,254	$ 211,975	$2,990,229
Government guaranty book of business(7)	$45,502	$ 1,363	$46,865	$51,467	$ 1,445	$52,912

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(1) Consists of mortgage loans and Fannie Mae MBS recognized in our consolidated balance sheets. The principal balance of resecuritized Fannie Mae MBS is included only once in the reported amount.

(2) The principal balance of resecuritized Fannie Mae MBS is included only once in the reported amount.

(3) Consists of single-family and multifamily credit enhancements that we have provided and that are not otherwise reflected in the table.

(4) Consists of mortgage-related securities issued by Freddie Mac and Ginnie Mae.

(5) Primarily includes mortgage revenue bonds, Alt-A and subprime PLS, and CMBS.

(6) Refers to mortgage loans and mortgage-related securities that are not guaranteed or insured, in whole or in part, by the U.S. government or one of its agencies.

(7) Refers to mortgage loans and mortgage-related securities guaranteed or insured, in whole or in part, by the U.S. government or one of its agencies.

The GSE Act requires us to set aside each year an amount equal to 4.2 basis points for each dollar of the unpaid principal balance of our total new business purchases and to pay this amount to specified HUD and Treasury funds. New business purchases consist of single-family and multifamily whole mortgage loans purchased during the period and single-family and multifamily mortgage loans underlying Fannie Mae MBS issued during the period pursuant to lender swaps. Our new business purchases were $637.4 billion for the year ended December 31, 2016. Accordingly, we recognized an expense of $268 million related to this obligation for the year ended December 31, 2016. We expect to pay this amount to the funds on or before March 1, 2017. See "Business—Legislation and Regulation—GSE Act and Other Regulation of Our Business—Affordable Housing Allocations" for more information regarding this obligation.

Business Segments

Overview

We have two reportable business segments: Single-Family and Multifamily. Our CEO is the chief operating decision maker, and allocates resources and assesses performance based on these two business segments. In the fourth quarter of 2016, our CEO changed the way he allocates resources and evaluates operating results. This change resulted in realigning the composition of our reportable business segments to incorporate the activities of the Capital Markets group, which was previously a separate reportable business segment, into the Single-Family or Multifamily segments. The Capital Markets group's activities relating to single-family mortgage assets were incorporated into the Single-Family segment, and its activities relating to multifamily mortgage assets were incorporated into the Multifamily segment. Mortgage assets, debt funding those assets and associated revenues and expenses previously reported in the Capital Markets group segment are now reported in the Single-Family or Multifamily segments based on whether the underlying mortgage asset is a single-family or multifamily mortgage asset. Administrative expenses previously reported in the Capital Markets group segment have been allocated either directly, where applicable, or indirectly, based on the size of each segment's mortgage credit book of business. Results of our two business segments are intended to reflect each segment as if it were a stand-alone business. Under our new segment reporting, we have no reconciling items; therefore, the sum of the results for our two business segments equals our consolidated results of operations. We have revised the presentation of our segment results for prior years to be consistent with the current year presentation. We describe the management reporting and allocation process used to generate our segment results in "Note 12, Segment Reporting."

This section describes the following for each of our business segments:

- the principal business activities of the segment;
- market conditions relating to the business;
- the segment's business and financial results; and
- credit risk management relating to the business.

This section should be read together with our comparative discussion of our consolidated results of operations in "Consolidated Results of Operations."

Single-Family Business

Single-Family Business Activities

Overview

Working with our lender customers, our Single-Family business provides liquidity to the mortgage market primarily by acquiring single-family loans from lenders through lender swap transactions and our whole loan conduit, and securitizing those loans into Fannie Mae MBS, which are either delivered to the lenders or sold to investors or dealers. We describe our securitization transactions and the types of Fannie Mae MBS that we issue in "Business—Mortgage Securitizations" above. Our Single-Family business also supports liquidity in the mortgage market and the businesses of our lender customers through other activities, such as issuing structured Fannie Mae MBS backed by single-family mortgage assets and buying and selling single-family agency mortgage-backed securities.

A single-family loan is secured by a property with four or fewer residential units. Our Single-Family business securitizes and purchases primarily conventional (not federally insured or guaranteed) single-family fixed-rate or adjustable-rate, first-lien mortgage loans, or mortgage-related securities backed by these types of loans. We also securitize or purchase loans insured by FHA, loans guaranteed by the VA, loans guaranteed by the Rural Development Housing and Community Facilities Program of the U.S. Department of Agriculture, manufactured housing mortgage loans and other mortgage-related securities.

Revenues for our Single-Family business are derived primarily from net interest income. Our two primary sources of single-family net interest income are: (1) the guaranty fees we receive as compensation for assuming and managing the credit risk on the single-family mortgage loans underlying Fannie Mae MBS held by third parties; and (2) the difference between the interest income earned on the single-family mortgage assets in our retained mortgage portfolio and the interest expense associated with the debt that funds those assets. Our Single-Family business also earns revenues from other fees associated with single-family business activities, including transaction fees for issuing structured Fannie Mae MBS backed by single-family mortgage assets.

Single-Family Loan Transaction Channels

Loans from our lender customers are delivered to us through either our "flow" or "bulk" transaction channels. In our flow business, we enter into agreements that generally set agreed-upon guaranty fees and other contract terms for a lender's future delivery of individual loans to us over a specified time period. Our bulk business

generally consists of transactions in which a set of loans is delivered to us in bulk, typically with guaranty fees and other contract terms negotiated individually for each transaction.

Other Services Provided to Single-Family Lender Customers

Our Single-Family business also supports liquidity in the U.S. mortgage market through additional activities, such as the following:

- Early Funding. Lenders who deliver single-family whole loans or pools of single-family whole loans to us in exchange for MBS typically must wait between 30 and 45 days from the closing and settlement of the loans or pools and the issuance of the MBS. This delay may limit lenders' ability to originate new loans. Under our early lender funding programs, we purchase single-family whole loans or pools of single-family loans on an accelerated basis, allowing lenders to receive quicker payment for the whole loans and pools, which replenishes their funds and allows them to originate more mortgage loans.
- MBS Trading. We regularly enter into purchase and sale transactions with other market participants involving single-family mortgage-backed securities issued by Fannie Mae, Freddie Mac and Ginnie Mae, which we refer to as "agency MBS." These transactions can provide for the future delivery of mortgage-backed securities with underlying single-family loans that share certain general characteristics (often referred to as the "TBA market"). The Securities Industry and Financial Markets Association, or SIFMA, determines the requirements for securities that are eligible to be traded in the TBA market. These purchase and sale transactions also can provide for the future delivery of specifically identified mortgage-backed securities with underlying loans that have other characteristics considered desirable by some investors (often referred to as the "Specified Pools market"). Through our trading activity in the TBA and Specified Pools markets, we provide significant liquidity to the agency MBS markets.

Single-Family Mortgage Servicing

Generally, the servicing of the mortgage loans that are held in our retained mortgage portfolio or that back our Fannie Mae MBS is performed by mortgage servicers on our behalf. Some loans are serviced for us by the lenders that initially sold the loans to us. In other cases, our loans are serviced by third-party servicers that did not originate or sell the loans to us. For loans we own or guarantee, the lender or servicer must obtain our approval before selling servicing rights to another servicer.

Our mortgage servicers typically collect and deliver principal and interest payments, administer escrow accounts, monitor and report delinquencies, perform default prevention activities, evaluate transfers of ownership interests, respond to requests for partial releases of security, and handle proceeds from casualty and condemnation losses. Our mortgage servicers are the primary point of contact for borrowers and perform a key role in the effective implementation of our homeownership assistance initiatives, negotiation of workouts of troubled loans, and other loss mitigation activities. If necessary, mortgage servicers inspect and preserve properties and process foreclosures and bankruptcies. Because we generally delegate the servicing of our mortgage loans to mortgage servicers and do not have our own servicing function, our ability to actively manage troubled loans that we own or guarantee is limited. For more information on the risks of our reliance on servicers, refer to "Risk Factors" and "Risk Management—Credit Risk Management—Institutional Counterparty Credit Risk Management."

We compensate servicers primarily by permitting them to retain a specified portion of each interest payment on a serviced mortgage loan as a servicing fee. Servicers also generally retain assumption fees, late payment charges and other similar charges, to the extent they are collected from borrowers, as additional servicing compensation. We also compensate servicers for negotiating workouts on problem loans.

Our servicers are required to develop, follow and maintain written procedures relating to loan servicing and legal compliance in accordance with our Servicing Guide. We oversee servicer compliance with our Servicing Guide requirements and execution of our loss mitigation programs by conducting reviews of select servicers. These reviews are designed to test a servicer's quality control processes and compliance with our requirements across key servicing functions. Issues identified through these Servicing Guide compliance reviews are provided to the servicer with prescribed corrective actions and expected resolution due dates, and we monitor servicers' remediation of their compliance issues.

Performance management staff measure, monitor and manage overall servicer performance by providing loss mitigation workout goals to targeted servicers, discussing performance against each goal and tracking action items to improve, and following up on remediation of findings identified from compliance reviews. Additionally, we employ a servicer performance management program called the STAR™ Program, which provides our largest servicers a transparent framework of key metrics and operational assessments to recognize strong performance and identify areas of weakness.

Repercussions for poor performance by a servicer may include lost incentive income, reduced opportunity for STAR Program recognition, compensatory fees, monetary and non-monetary remedies, performance improvement plans and servicing transfers.

Single-Family Housing and Mortgage Market and Economic Conditions

According to the U.S. Bureau of Economic Analysis advance estimate, the inflation-adjusted U.S. gross domestic product, or GDP, rose by 1.6% in 2016, moderating from 2.6% in 2015. According to the U.S. Bureau of Labor Statistics as of January 2017, the economy created an estimated 2.1 million non-farm jobs in 2016 and 2.7 million non-farm jobs in 2015. The unemployment rate declined to 4.7% in December 2016 from 5.0% in December 2015. In January 2017, non-farm payrolls increased by 227,000 jobs, and the unemployment rate increased to 4.8%.

The most comprehensive measure of the unemployment rate, which includes those working part-time who would rather work full-time and those not looking for work but who want to work and are available for work, declined to 9.2% in December 2016 from 9.9% in December 2015.

Housing activity improved in 2016 as compared with 2015. Total existing home sales of 5.5 million units in 2016 represent an increase of 3.8% from 2015, compared with a 6.3% increase in 2015, according to data from the National Association of REALTORS®. Sales of foreclosed homes and preforeclosure, or “short,” sales (together, “distressed sales”) accounted for 7.0% of existing home sales in December 2016, compared with 8.0% in December 2015. According to the U.S. Census Bureau, new single-family home sales increased 12.4% in 2016, after increasing by 14.6% in 2015. Homebuilding activity continued to increase in 2016, as single-family housing starts rose approximately 9% in 2016, compared with an increase of 10% in 2015.

At the end of 2016, the number of months’ supply, or the inventory/sales ratio, of available existing homes and of new homes were each below their historical average. According to the U.S. Census Bureau, the months’ supply of new single-family unsold homes was 5.8 months as of December 31, 2016, compared with 5.2 months as of December 31, 2015. According to the National Association of REALTORS®, the months’ supply of existing unsold homes was 3.6 months as of December 31, 2016, compared with a 3.9 months’ supply as of December 31, 2015.

The overall mortgage market serious delinquency rate fell to 3.1% as of December 31, 2016, according to the Mortgage Bankers Association’s National Delinquency Survey, compared with 3.4% as of December 31, 2015. We provide information about Fannie Mae’s serious delinquency rate, which also decreased during 2016, in “Single-Family Mortgage Credit Risk Management” below.

Table 16 displays several key indicators related to the U.S. single-family residential mortgage market.

Table 16: Single-Family Housing and Mortgage Market Indicators[1]

	2016	2015	2014	% Change 2016 vs. 2015	% Change 2015 vs. 2014
Home sales (units in thousands)	6,013	5,751	5,377	4.6 %	7.0 %
New home sales	563	501	437	12.4	14.6
Existing home sales	5,450	5,250	4,940	3.8	6.3
Home price change based on Fannie Mae Home Price Index ("HPI")[2]	5.9 %	4.7 %	4.3 %		
Annual average 30-year fixed-rate mortgage interest rate[3]	3.7 %	3.9 %	4.2 %		
Average 30-year fixed-rate mortgage interest rate, at end of period[3]	4.3 %	4.0 %	3.9 %		
Single-family mortgage originations (in billions)	$1,940	$1,730	$1,301	12.1	33.0
Refinance share of mortgage originations	48 %	47 %	40 %		
Adjustable-rate share of mortgage applications	7 %	8 %	9 %		
Single-family U.S. mortgage debt outstanding (in billions)[4]	$10,216	$10,042	$9,945	1.7	1.0
Fannie Mae percentage of total single-family mortgage debt outstanding, at end of period[4]	28 %	28 %	29 %		

(1) The sources of the housing and mortgage market data in this table are the Federal Reserve Board, the U.S. Census Bureau, HUD, the National Association of REALTORS® and the Mortgage Bankers Association. Home sales data are based on information available through January 2017. Single-family mortgage originations, as well as refinance shares, are based on February 2017 estimates from Fannie Mae's Economic & Strategic Research group. The adjustable-rate mortgage share is based on the number of conventional mortgage applications data reported by the Mortgage Bankers Association. Certain previously reported data may have been changed to reflect revised historical data from any or all of these organizations.

(2) Calculated internally using property data information on loans purchased by Fannie Mae, Freddie Mac and other third-party home sales data. Fannie Mae's HPI is a weighted repeat transactions index, measuring average price changes in repeat sales on the same properties. Fannie Mae's HPI excludes prices on properties sold in foreclosure. The reported home price change reflects the percentage change in Fannie Mae's HPI from the fourth quarter of the prior year to the fourth quarter of the reported year.

(3) Based on Freddie Mac's Primary Mortgage Market Survey® rate, which represents the national average mortgage commitment rate to a qualified borrower exclusive of any fees and points required by the lender.

(4) Information labeled as of December 31, 2016 is as of September 30, 2016 and is based on the Federal Reserve's December 2016 mortgage debt outstanding release, the latest date for which the Federal Reserve has estimated mortgage debt outstanding for single-family residences. Prior period amounts have been changed to reflect revised historical data from the Federal Reserve.

Based on our home price index, we estimate that home prices on a national basis increased by 5.9% in 2016, following increases of 4.7% in 2015 and 4.3% in 2014. Despite the recent increases in home prices, we estimate that, through December 31, 2016, home prices on a national basis remained 1.0% below their peak in the third quarter of 2006. Our home price estimates are based on preliminary data and are subject to change as additional data become available.

Single-Family Business Metrics

Table 17: Single-Family Business Key Performance Data

	For the Year Ended December 31,		
	2016	2015	2014
	(Dollars in millions)		
Securitization Activity/New Business			
Single-family Fannie Mae MBS issuances	$582,817	$472,471	$375,676
Single-family Fannie Mae MBS outstanding, at end of period	$2,675,565	$2,618,258	$2,617,773
Portfolio Data			
Single-family retained mortgage portfolio, at end of period	$252,502	$314,325	$363,310
Credit Guaranty Activity			
Average single-family guaranty book of business[1]	$2,828,644	$2,836,447	$2,867,787
Average charged guaranty fee on single-family guaranty book of business:[2]			
Fee, net of TCCA fees (in basis points)[3]	41.5	40.0	37.6
Total fee (in basis points)	48.6	46.2	42.9
Average charged guaranty fee on new single-family acquisitions:[2]			
Fee, net of TCCA fees (in basis points)[3]	46.7	50.5	52.9
Total fee (in basis points)	56.7	60.5	62.9
Single-family credit loss ratio (in basis points)[4]	13.0	37.8	20.8
Single-family serious delinquency rate, at end of period[5]	1.20 %	1.55 %	1.89 %

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(1) Our single-family guaranty book of business consists of (a) single-family mortgage loans of Fannie Mae, (b) single-family mortgage loans underlying Fannie Mae MBS, and (c) other credit enhancements that we provide on single-family mortgage assets, such as long-term standby commitments. It excludes non-Fannie Mae single-family mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

(2) Calculated based on the average guaranty fee rate for our single-family guaranty arrangements entered into during the period plus the recognition of any upfront cash payments over an estimated average life.

(3) Excludes the impact of a 10 basis point guaranty fee increase implemented in 2012 pursuant to the TCCA, the incremental revenue from which is remitted to Treasury and not retained by us.

(4) Calculated based on single-family segment credit losses divided by the average single-family guaranty book of business.

(5) Calculated based on the number of single-family conventional loans that are 90 days or more past due or in the foreclosure process, divided by the number of loans in our single-family conventional guaranty book of business.

Our single-family Fannie Mae MBS issuances increased in 2016 compared with 2015, driven primarily by an increase in refinance activity in 2016. Higher refinance activity also drove an increase in liquidations of loans from our single-family guaranty book of business in 2016 compared with 2015. Accordingly, the size of our single-family guaranty book of business remained relatively flat.

Our average charged guaranty fee on newly acquired single-family loans decreased in 2016 compared with 2015 primarily due to both: (1) changes in the base guaranty fee rates we charged for some loan types in response to market conditions; and (2) a decrease in the loan level price adjustments we charged on our acquisitions driven by improved credit risk metrics on these acquisitions as compared with our acquisitions in 2015. Loan level price adjustments are one-time cash fees that we charge at the time we acquire a loan based on the loan's features.

In July 2016, FHFA advised us that it had established minimum base guaranty fees that generally apply to our acquisitions of 30-year and 15-year fixed-rate loans in lender swap transactions. These new minimum base guaranty fees were implemented in November 2016 and may affect our average charged guaranty fee on newly-acquired single family loans in future periods. For further discussion of FHFA's establishment of minimum base guaranty fees, see "Business—Legislation and Regulation—GSE Act and Other Regulation of Our Business—Guaranty Fees."

Single-Family Business Financial Results

Table 18: Single-Family Business Financial Results

	For the Year Ended December 31,			Variance	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
	(Dollars in millions)				
Net interest income[1]	$19,010	$19,301	$18,204	$(291)	$1,097
Fee and other income	521	636	5,393	(115)	(4,757)
Net revenues	19,531	19,937	23,597	(406)	(3,660)
Credit-related income (expense)[2]	1,439	(1,035)	3,625	2,474	(4,660)
Investment gains, net	944	970	675	(26)	295
Fair value losses, net	(1,040)	(1,505)	(4,788)	465	3,283
Administrative expenses	(2,418)	(2,711)	(2,467)	293	(244)
TCCA fees[1]	(1,845)	(1,621)	(1,375)	(224)	(246)
Other expenses[3]	(1,012)	(831)	(718)	(181)	(113)
Income before federal income taxes	15,599	13,204	18,549	2,395	(5,345)
Provision for federal income taxes	(5,417)	(4,593)	(6,410)	(824)	1,817
Net income attributable to Fannie Mae	$10,182	$8,611	$12,139	$1,571	$(3,528)

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(1) Reflects the impact of a 10 basis point guaranty fee increase implemented in 2012 pursuant to the TCCA, the incremental revenue from which is remitted to Treasury. The resulting revenue is included in net interest income and the expense is recognized as "TCCA fees."

(2) Consists of the benefit (provision) for credit losses and foreclosed property income (expense).

(3) Consists of gains (losses) from partnership investments, debt extinguishment (gains) losses, and other expenses.

2016 compared with 2015

Single-family net income increased in 2016 compared with 2015 driven primarily by a shift to credit-related income in 2016 from credit-related expense in 2015, lower fair value losses and lower administrative expenses, partially offset by a decrease in net interest income.

We recognized credit-related income in 2016 compared with credit-related expense in 2015. This shift was primarily driven by a higher benefit for credit losses primarily due to a smaller impact resulting from the redesignation of loans from HFI to HFS in 2016 compared with 2015. Also contributing to the shift to credit-related income in 2016 was a decrease in foreclosed property expense primarily due to a decline in the number of single-family foreclosed properties. See "Consolidated Results of Operations—Credit-Related Income (Expense)" for more information on the drivers of our credit-related income.

Fair value losses decreased in 2016 compared with 2015. The fair value losses that are reported for the single-family segment are consistent with the fair value losses reported in our consolidated statements of operations and comprehensive income. We discuss our derivatives fair value gains and losses in "Consolidated Results of Operations—Fair Value Losses, Net."

Administrative expenses decreased in 2016 compared with 2015, primarily as a result of the recognition of expenses related to the settlement of our defined benefit pension plan obligations in 2015.

Single-family net interest income decreased in 2016 compared with 2015, primarily due to a decline in the average balance of our single-family retained mortgage portfolio. This decrease in net interest income due to the decline in our portfolio was almost entirely offset by an increase in guaranty fee income primarily driven by: (1) loans with higher base guaranty fees comprising a larger part of our single-family guaranty book of business in 2016 than in 2015; and (2) an increase in amortization income in 2016 as a lower interest rate environment during the first nine months of the year increased prepayments on single-family mortgage loans of consolidated trusts, which accelerated the amortization of the cost basis adjustments on the loans and related debt.

2015 compared with 2014

Single-family net income decreased in 2015 compared with 2014, primarily due to a decrease in fee and other income in 2015 and a shift to credit-related expense in 2015 from credit-related income in 2014, partially offset by lower fair value losses and an increase in net interest income.

Fee and other income decreased in 2015 compared with 2014, primarily due to higher revenue recognized in 2014 as a result of settlement agreements resolving certain lawsuits relating to PLS sold to us.

We recognized credit-related expense in 2015 compared with credit-related income in 2014. This shift was primarily driven by a lower benefit for credit losses in 2015. Our benefit for credit losses decreased in 2015 compared with 2014 primarily driven by decreases in interest rates in 2014, which decreased the impairment on our individually impaired loans related to concessions provided on our modified loans and resulted in an increase in our benefit for credit losses in 2014. In addition, although home prices increased in both 2014 and 2015, home price increases had a smaller impact on our benefit for credit losses in 2015 than in 2014, primarily due to the smaller number of nonperforming loans held for investment in our guaranty book of business in 2015 as compared with 2014. Also contributing to our lower benefit for credit losses in 2015 was our redesignation of certain nonperforming single-family loans from HFI to HFS in connection with our plans to sell these loans. Foreclosed property expense increased in 2015 compared with 2014 primarily due to higher expenses relating to property tax and insurance costs on our single-family foreclosed properties and a decrease in the amount of income from the resolution of compensatory fees and representation and warranty matters.

Fair value losses decreased in 2015 compared with 2014. We discuss our derivatives fair value gains and losses in “Consolidated Results of Operations—Fair Value Losses, Net.”

Single-family net interest income increased in 2015 compared with 2014 due to an increase in guaranty fee income primarily driven by: (1) an increase in amortization income as the lower interest rate environment in the first half of 2015 increased prepayments on mortgage loans of consolidated trusts, which accelerated the amortization of cost basis adjustments on the loans and related debt; and (2) loans with higher base guaranty fees comprising a larger part of our single-family guaranty book of business in 2015 than in 2014. The increase in net interest income due to higher guaranty fee income was partially offset by a decline in the average balance of our single-family retained mortgage portfolio in 2015.

Single-Family Mortgage Credit Risk Management

Our strategy in managing single-family mortgage credit risk consists of five primary components:

- our acquisition and servicing policies along with our underwriting and servicing standards;
- the transfer of credit risk through risk transfer transactions and the use of credit enhancements;
- portfolio diversification and monitoring;
- management of problem loans; and
- REO management.

The single-family credit statistics we focus on and report in the sections below generally relate to our single-family conventional guaranty book of business, which represents the substantial majority of our total single-family guaranty book of business. In addition, we exclude from these credit statistics approximately 1% of our single-family conventional guaranty book of business for which our loan level information is incomplete as of December 31, 2016 and 2015. We typically obtain this data from the sellers or servicers of the mortgage loans in our guaranty book of business and receive representations and warranties from them as to the accuracy of the information. While we perform various quality assurance checks by sampling loans to assess compliance with our underwriting and eligibility criteria, we do not independently verify all reported information and we rely on lender representations regarding the accuracy of the characteristics of loans in our guaranty book of business. See “Risk Factors” for a discussion of the risk that we could experience mortgage fraud as a result of this reliance on lender representations. We provide information on non-Fannie Mae mortgage-related securities held in our portfolio in “Note 5, Investments in Securities.”

Single-Family Acquisition and Servicing Policies and Underwriting and Servicing Standards

Overview

Our Single-Family business, with the oversight of our Enterprise Risk Management division, is responsible for pricing and managing credit risk relating to the portion of our single-family mortgage credit book of business

consisting of single-family mortgage loans and Fannie Mae MBS backed by single-family mortgage loans (whether held in our portfolio or held by third parties).

Desktop Underwriter, our proprietary automated underwriting system, measures credit risk by assessing the primary risk factors of a mortgage and was used to evaluate over 80% of the non-Refi Plus single-family loans we acquired in 2016. As part of our regular evaluation of Desktop Underwriter, we conduct periodic examinations of the underlying risk assessment models and recalibrate the models based on actual loan performance and market assumptions to improve Desktop Underwriter's ability to effectively analyze risk. Subject to our prior approval, we also may purchase and securitize mortgage loans that have been underwritten using other automated underwriting systems, as well as manually underwritten mortgage loans that meet our stated underwriting requirements or meet agreed-upon standards that differ from our standard underwriting and eligibility criteria. We periodically update Desktop Underwriter to reflect changes to both our underwriting and eligibility guidelines and to our Selling Guide, which sets forth our underwriting and eligibility guidelines as well as our policies and procedures related to selling single-family mortgages to us.

Our servicing policies establish the requirements our servicers must follow in processing and remitting loan payments; working with delinquent borrowers on loss mitigation activities; managing and protecting Fannie Mae's interest in the pledged property; and processing bankruptcies and foreclosures. Our goal is to ensure that our policies support management of risk over the life of the mortgage loan by enabling default prevention activities, promoting loss mitigation in the event of default and providing for the preservation and protection of the collateral supporting the mortgage loan.

Recent Changes

In recent years, we implemented a number of changes designed to help our customers originate mortgages with increased certainty, efficiency and lower costs, including making new verification tools such as Collateral Underwriter and EarlyCheck available to lenders and eliminating fees charged to customers for using our Desktop Underwriter and Desktop Originator systems.

In 2016, we continued to implement a number of changes to Desktop Underwriter designed to help originate mortgages with increased certainty, efficiency and lower costs, including making new verification tools available to lenders:

- In September 2016, we incorporated trended credit data into Desktop Underwriter. Trended credit data refers to additional historical information on a borrower's use of revolving credit accounts, including the balance, scheduled payments and actual payments made on these accounts. Incorporating trended credit data is expected to improve Desktop Underwriter's credit risk assessment and benefit borrowers who regularly pay down their revolving debt.
- In September 2016, we also added the ability in Desktop Underwriter to underwrite loans where the borrower does not have a credit score, automating what was previously a manual process for lenders.
- As part of our Day 1 Certainty initiative, we began offering the following options to lenders through Desktop Underwriter in the fourth quarter of 2016:

Third-party validation of borrower income, asset and employment data; and

A property inspection waiver for certain refinance transactions that meet specified eligibility criteria, including a requirement that a prior appraisal for the subject property associated with one of the borrowers for the refinance must already be in Uniform Collateral Data Portal®. The majority of our loan acquisitions will continue to require an appraisal to establish market value.

Our Day 1 Certainty initiative also offers lenders additional relief from certain representations and warranties, as described in "Representation and Warranty Relief" below.

Quality Control Process

Beginning with loans delivered in 2013, and in conjunction with our revised representation and warranty framework described below, we have made changes in our quality control process that move the primary focus of our quality control review from the time a loan defaults to shortly after the loan is delivered to us. We have implemented new tools to help identify loans delivered to us that may not have met our underwriting or eligibility guidelines and use these tools to help select discretionary samples of performing loans for quality control review shortly after delivery. Our quality control process includes reviewing and recording underwriting defects noted in

the loan file and determining if the loan met our underwriting and eligibility guidelines. We also select random samples of performing loans for quality control review shortly after delivery. We also use these reviews to provide lenders with earlier feedback on underwriting defects.

We derive an eligibility defect rate from our random reviews, which represents the proportion of loans in the sample population with underwriting defects that would make them potentially ineligible for delivery to us. The eligibility defect rate does not necessarily indicate how well the loans will ultimately perform. Instead, we use the eligibility defect rate to estimate the percentage of loans we acquired that potentially had a significant error in the underwriting process. As of December 31, 2016, the eligibility defect rate for our single-family non-Refi Plus loan acquisitions made during the twelve months ended April 2016 was 0.41%. We continue to work with lenders to reduce the number of defects.

Repurchase Requests

If we determine that a mortgage loan did not meet our underwriting or eligibility requirements, loan representations or warranties were violated or a mortgage insurer rescinded coverage, then our mortgage sellers and/or servicers are obligated to either repurchase the loan or foreclosed property, reimburse us for our losses or provide other remedies, unless the loan is eligible for representation and warranty relief under our representation and warranty framework described below. We collectively refer to our demands that mortgage sellers and servicers meet these obligations as repurchase requests. The unpaid principal balance of single-family loans that are subject to a repurchase request has declined significantly since we strengthened our underwriting standards in late 2008 and 2009, implemented changes to our quality control process in 2013 and implemented our revised representation and warranty framework described below. As of December 31, 2016, we had issued repurchase requests on approximately 0.15% of the $461.7 billion of unpaid principal balance of single-family loans delivered to us during the twelve months ended May 2016.

Our total outstanding repurchase requests as of December 31, 2016 were $303 million, compared with $696 million as of December 31, 2015. The dollar amounts of our outstanding repurchase requests are based on the unpaid principal balance of the loans underlying the repurchase request, not the actual amount we have requested from the lenders. In some cases, we allow lenders to remit payment equal to our loss, including imputed interest, on the loan after we have disposed of the related REO, which may be substantially less than the unpaid principal balance of the loan. As a result, we expect our actual cash receipts relating to these outstanding repurchase requests to be significantly lower than the unpaid principal balance of the loans. If we are unable to resolve our repurchase requests, either through collection or additional remedies, we will not recover the losses we have recognized on the associated loans.

Representation and Warranty Relief

We implemented a revised representation and warranty framework in 2013 to provide lenders with a higher degree of certainty and clarity regarding their exposure to repurchase requests on future deliveries, as well as greater consistency around repurchase timelines and remedies. This framework was further revised in 2014. Under the framework, lenders are relieved of certain repurchase liabilities for loans that meet specific requirements. The chart below summarizes our current representation and warranty framework.

Relief Criteria	R&W Framework Version 1 (Announced Sept 2012)	R&W Framework Version 2 (Announced May 2014)
Relief provided with respect to:	Underwriting representations and warranties. Excludes life of loan representations and warranties[(1)]	Underwriting representations and warranties. Excludes life of loan representations and warranties[(1)]
Effective date—loans acquired or MBS issue date	January 1, 2013 up to July 1, 2014	On and after July 1, 2014
Required consecutive monthly payments	- 36 for non-Refi Plus loans - 12 for Refi Plus (including HARP) loans	- 36 for non-Refi Plus loans - 12 for Refi Plus (including HARP) loans
Delinquencies permitted to remain eligible for relief	None	Up to two 30 day delinquencies (but not in the 36th consecutive month's payment)
Eligible for relief after satisfactory conclusion of a full-file quality	No	Yes

control review

(1) No relief from enforcement is available for "life of loan" representations and warranties, regardless of the number of payments made by a borrower or whether there has been a satisfactory conclusion of a full-file quality control review. Examples of life of loan representations and warranties include that the loan has been originated in compliance with applicable laws and that the loan conforms to our charter requirements.

We have continued to provide value to our customers by developing new tools that enable them to obtain relief from certain representations and warranties at an earlier date. Our Day 1 Certainty initiative implemented in the fourth quarter of 2016 offers lenders representation and warranty relief for:

- borrower income, asset and employment data that has been validated through Desktop Underwriter;
- appraised property value for appraisals that have received a qualifying risk score in Collateral Underwriter; and
- property value, condition and marketability for lenders that exercise the property inspection waiver option available on certain eligible refinance transactions.

Relief for validated borrower income data is available for loans acquired on or after October 24, 2016 and relief for the other validated data referenced above is available for loans acquired on or after December 10, 2016.

Other improvements we have implemented to clarify and limit lenders' repurchase liability include providing more specific guidance on what types of loan defects would lead to a repurchase request, offering alternatives to repurchase in some cases, and implementing a new independent dispute resolution process for loans delivered to us on or after January 1, 2016. We believe the changes we have made to lenders' representation and warranty obligations, as well as to our quality control process described above, have significantly reduced uncertainty surrounding lenders' repurchase risk on loans they deliver to us.

As of December 31, 2016, approximately 48% of the outstanding loans in our single-family conventional guaranty book of business were acquired after January 1, 2013 and are subject to the revised representation and warranty framework, compared with 38% as of December 31, 2015. Table 19 below displays information regarding the relief status of single-family conventional loans, based only on payment history or the satisfactory conclusion of a full-file quality control review, delivered to us beginning in 2013 under the revised representation and warranty framework.

Table 19: Representation and Warranty Status of Single-Family Conventional Loans Acquired in 2013-2016

	As of December 31, 2016					
	Refi Plus		Non-Refi Plus		Total	
	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans
	(Dollars in millions)					
Single-family conventional loans that:						
Obtained relief	$168,773	1,207,630	$355,375	1,857,770	$524,148	3,065,400
Remain eligible for relief	25,140	164,417	1,033,573	4,856,337	1,058,713	5,020,754
Are not eligible for relief	4,261	28,214	12,873	69,384	17,134	97,598
Total outstanding loans acquired since January 1, 2013	$198,174	1,400,261	$1,401,821	6,783,491	$1,599,995	8,183,752
	As of December 31, 2015					
	Refi Plus		Non-Refi Plus		Total	
	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans
	(Dollars in millions)					
Single-family conventional loans that:						
Obtained relief	$165,069	1,135,903	$21,924	97,199	$186,993	1,233,102
Remain eligible for relief	33,190	220,006	1,053,727	5,100,603	1,086,917	5,320,609
Are not eligible for relief	3,643	23,636	7,001	37,619	10,644	61,255
Total outstanding loans acquired since January 1, 2013	$201,902	1,379,545	$1,082,652	5,235,421	$1,284,554	6,614,966

As of December 31, 2016, approximately 37% of loans acquired under the revised representation and warranty framework had obtained relief, compared with 19% as of December 31, 2015. The increase in the percentage of loans that have obtained repurchase relief in 2016 was driven by the large number of non-Refi Plus single-family loans purchased in 2013 that have now received representation and warranty relief by meeting the 36-month timely payment history requirement. Providing lenders with relief from repurchasing loans for breaches of certain representations and warranties on loans acquired beginning in 2013 that meet specified eligibility requirements shifts some of the risk of non-compliance with our requirements back to us. However, we believe that we have taken appropriate steps to mitigate this risk, including moving the primary focus and timing of our quality control reviews to shortly after loan delivery. We also retain the right to review all loans, including reviews for any violations of “life of loan” representations and warranties.

Transfer of Mortgage Credit Risk

Mortgage Insurance

Our charter generally requires credit enhancement on any single-family conventional mortgage loan that we purchase or securitize if it has an LTV ratio over 80% at the time of purchase. Borrower-paid primary mortgage insurance is the most common type of credit enhancement in our single-family guaranty book of business. Primary mortgage insurance transfers varying portions of the credit risk associated with a mortgage loan to a third-party insurer. In order for us to receive a payment in settlement of a claim under a primary mortgage insurance policy, the insured loan must be in default and the borrower’s interest in the property that secured the loan must have been extinguished, generally in a foreclosure action. The claims process for primary mortgage insurance typically takes three to six months after title to the property has been transferred.

Mortgage insurers may also provide pool mortgage insurance, which is insurance that applies to a defined group of loans. Pool mortgage insurance benefits typically are based on actual loss incurred and are subject to an aggregate loss limit. Under some of our pool mortgage insurance policies, we are required to meet specified loss

deductibles before we can recover under the policy. We typically collect claims under pool mortgage insurance three to six months after disposition of the property that secured the loan. For a discussion of our aggregate mortgage insurance coverage as of December 31, 2016 and 2015, see “Risk Management—Credit Risk Management—Institutional Counterparty Credit Risk Management—Credit Guarantors—Mortgage Insurers.”

Credit Risk Transfer Transactions

Our Single-Family business has developed risk-sharing capabilities to transfer portions of our single-family mortgage credit risk to the private market. The goal of these transactions is, to the extent economically sensible, to transfer a portion of the existing mortgage credit risk on a portion of recently acquired loans in our single-family guaranty book of business in order to reduce the economic risk to us and to taxpayers of future borrower defaults. Our primary method of achieving this objective has been through our CAS and CIRT transactions. In these transactions, we transfer to investors a portion of the mortgage credit risk associated with losses on a reference pool of mortgage loans and in exchange we pay investors a premium that effectively reduces the guaranty fee income we retain on the loans. We enter into other types of credit risk transfer transactions in addition to our CAS and CIRT transactions, including lender risk-sharing transactions.

As of December 31, 2016, $647.5 billion in outstanding unpaid principal balance of our single-family loans, or approximately 23% of the loans in our single-family conventional guaranty book of business measured by unpaid principal balance, were included in a reference pool for a credit risk transfer transaction. During 2016, pursuant to our credit risk transfer transactions, we transferred a portion of the mortgage credit risk on single-family mortgages with an unpaid principal balance of over $330 billion at the time of the transactions.

We generally include approximately half of our recent single-family acquisitions in credit risk transfer transactions, as we target only certain types of loan categories for these transactions. Loan categories we have targeted for CAS and CIRT transactions generally consist of fixed-rate 30-year single-family conventional loans that meet certain credit performance characteristics, are non-Refi Plus and have LTV ratios between 60% and 97%. These targeted loan categories constituted over half of our loan acquisitions for the twelve months ended December 2015, and over 95% of the loans in these categories that we acquired in the twelve months ended December 2015 were included in a CAS or CIRT transaction. Loans are generally included in reference pools for CAS and CIRT transactions on a lagged basis; typically, about six months to one year after we initially acquire the loans. The portion of our single-family loan acquisitions we include in credit risk transfer transactions can vary from period to period based on market conditions and other factors.

In a CAS transaction, we transfer to investors a portion of the mortgage credit risk associated with losses on a reference pool of mortgage loans. We create a reference pool consisting of recently acquired single-family mortgage loans included in our guaranty book of business. We then create a hypothetical securitization structure with notional credit risk positions, or tranches (that is, first loss, mezzanine and senior), and issue CAS debt related to the first loss and mezzanine risk positions. CAS debt is generally issued with a stated final maturity date of either 10 or 12.5 years from issuance, after which the CAS debt provides no further credit protection with respect to the remaining loans in the reference pool underlying that CAS transaction.

Credit losses on the loans in the reference pool for a CAS transaction are first applied to reduce the outstanding principal balance of the first loss tranche. If credit losses on these loans exceed the outstanding principal balance of the first loss tranche, losses would then be applied to reduce the outstanding principal balance of the mezzanine loss tranche. Because we retain the senior loss tranche in CAS transactions, we would absorb any losses that exceed the outstanding principal balance of both the first loss and mezzanine loss tranches. The credit protection provided by the first loss and mezzanine loss tranches is expected to absorb all of the losses we estimate would be incurred on these loans in a stressed credit environment, such as a severe or prolonged economic downturn. Our initial CAS transactions sold only a portion of the mezzanine loss tranche to investors. We began to sell a portion of the first loss tranche to investors in 2016. Table 20 below identifies the loss positions we have transferred to investors in CAS and CIRT transactions.

Beginning in 2016, we recognize CAS debt we issue to investors at amortized cost as “Debt of Fannie Mae” in our consolidated balance sheets. CAS debt we issued prior to 2016 is recognized at fair value as “Debt of Fannie Mae” in our consolidated balance sheets. The principal balance of CAS debt decreases as a result of credit losses on loans in the related reference pool. These write downs of the principal balance reduce the total amount of payments we are obligated to make to investors on the CAS debt. We have recognized minimal credit losses on the loans in reference pools underlying CAS issuances to date primarily because the loans were acquired in recent years, after we implemented improvements in our credit underwriting practices, and because recent macroeconomic factors such as unemployment rates and home prices have been favorable.

CIRT deals are insurance transactions whereby we obtain actual loss coverage on pools of loans either directly from an insurance provider that retains the risk, or from an insurance provider that simultaneously cedes all of its risk to one or more reinsurers. CIRT deals are structured so that we retain an aggregate amount of initial losses on the loans in the pool, typically 0.5% of the pool unpaid principal balance at the effective date of the coverage, before the insurance layer, typically 2.5% of the pool unpaid principal balance at the effective date of the coverage, attaches. We currently retain the risk of any remaining losses above the insurance layer. The insurance layer typically provides coverage for losses on the pool that are likely to occur only in a stressed economic environment. Insurance benefits are received after the underlying property has been liquidated and all applicable proceeds, including private mortgage insurance benefits, have been applied to the loss. CIRT transactions completed to date have generally been written for ten-year terms. A portion of the insurers' or reinsurers' obligations is collateralized with highly-rated liquid assets held in a trust account. The required amount of collateral is initially determined according to the ratings of such insurer or reinsurer. There are contractual provisions that require additional collateral to be posted in the event of adverse developments with the counterparty, such as a ratings downgrade. We make premium payments on CIRT deals that we recognize in "Other expenses, net" in our consolidated statements of operations and comprehensive income.

We also enter into customized upfront lender risk-sharing transactions. In most lender risk-sharing transactions, lenders invest directly in a portion of the credit risk on mortgage loans they originate and/or service in exchange for a reduced fee. These transactions are structured so that a portion of the credit risk on the underlying mortgage loans is transferred without increasing our counterparty exposure.

Table 20 displays the mortgage credit risk transferred to third parties and retained by Fannie Mae pursuant to our single-family credit risk transfer transactions.

Table 20: Credit Risk Transfer Transactions

	At Issuance						As of December 31, 2016
	Credit Risk Retained by Fannie Mae			Credit Risk Transferred to Third Parties[1]			
	First Loss Position	Mezzanine Loss Position	Senior Loss Position	First Loss Position	Mezzanine Loss Position	Total Initial Reference Pool[2]	Total Outstanding Reference Pool[1][2][3]
	(Dollars in millions)						
CAS issuances:							
2016	$1,747	$ 355	$230,107	$649	$ 6,743	$239,601	$ 215,398
Prior CAS issuances	1,983	714	422,411	—	12,445	437,553	307,019
Total CAS issuances	$3,730	$ 1,069	$652,518	$649	$ 19,188	677,154	522,417
CIRT transactions:							
2016	$358		$73,453		$ 1,805	75,616	65,352
Prior CIRT transactions[4]	251		51,834		1,324	53,409	35,924
Total CIRT transactions	$609		$125,287		$ 3,129	129,025	101,276
Lender risk-sharing:							
2016						15,511	13,511
Prior lender risk-sharing						12,775	10,298
Total lender risk-sharing						28,286	23,809
Total credit risk transfer transactions						$834,465	$ 647,502
Total outstanding reference pool as a percentage of single-family conventional guaranty book of business							23.10 %

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(1) Includes $19.3 billion outstanding for the loss tranches transferred to third parties as of December 31, 2016.

(2) For CIRT and some lender risk-sharing transactions, "reference pool" reflects a pool of covered loans.

(3) For CAS and some lender risk-sharing transactions represents outstanding reference pools, not the outstanding unpaid principal balance of the underlying loans, as of December 31, 2016.

(4) Includes mortgage pool insurance transactions covering loans with an unpaid principal balance of $6.7 billion.

In October 2016, we announced a new pilot front-end CIRT transaction. In contrast to our previous CIRT transactions, in which we obtained credit risk transfer insurance coverage on single-family loans we had previously acquired, in this front-end CIRT structure, the insurance coverage is committed prior to our acquisition of the covered loans and therefore is effective as soon as the loans are acquired. This pilot transaction shifted a portion of the credit risk on pools of single-family loans to a group of affiliates of our mortgage insurer counterparties. We plan to continue to offer our traditional CIRT transactions that cover existing single-family loans in our portfolio as well.

We intend to continue to engage in credit risk transfer transactions on an ongoing basis, subject to market conditions. FHFA's 2017 conservatorship scorecard noted that FHFA expects Fannie Mae and Freddie Mac to continue single-family and multifamily credit risk transfers as core business practices. Accordingly, FHFA's 2017 conservatorship scorecard includes several objectives relating to our single-family credit risk transfer transactions.

Although we have designed our credit risk transfer transactions to mitigate some of our potential future credit losses, they are not designed to shield us from all losses. As shown in Table 20 above, we retain a portion of the risk of future credit losses on loans covered by CAS and CIRT transactions, including all or at least half of the first loss positions and all of the senior loss positions. We have structured the transactions this way because we believe the cost of transferring most of the first loss and the senior loss positions generally exceeds the benefit we would receive from such transfers. See "Risk Factors" for a discussion of factors that may limit our ability to use credit risk transfer transactions to mitigate some of our potential future credit losses, including factors that may result in these transactions providing less protection than we expect.

Single-Family Portfolio Diversification and Monitoring

Overview

Diversification within our single-family mortgage credit book of business by product type, loan characteristics and geography is an important factor that influences credit quality and performance and may reduce our credit risk. We monitor various loan attributes, in conjunction with housing market and economic conditions, to determine if our pricing, eligibility and underwriting criteria accurately reflect the risk associated with loans we acquire or guarantee. In some cases, we may decide to significantly reduce our participation in riskier loan product categories. We also review the payment performance of loans in order to help identify potential problem loans early in the delinquency cycle and to guide the development of our loss mitigation strategies.

The profile of our guaranty book of business is comprised of the following key loan attributes:

- LTV ratio. LTV ratio is a strong predictor of credit performance. The likelihood of default and the gross severity of a loss in the event of default are typically lower as the LTV ratio decreases. This also applies to the estimated mark-to-market LTV ratios, particularly those over 100%, as this indicates that the borrower's mortgage balance exceeds the property value.
- Product type. Certain loan product types have features that may result in increased risk. Generally, intermediate-term, fixed-rate mortgages exhibit the lowest default rates, followed by long-term, fixed-rate mortgages. Historically, adjustable-rate mortgages ("ARMs"), including negative-amortizing and interest-only loans, and balloon/reset mortgages have exhibited higher default rates than fixed-rate mortgages, partly because the borrower's payments rose, within limits, as interest rates changed.
- Number of units. Mortgages on one-unit properties tend to have lower credit risk than mortgages on two-, three- or four-unit properties.
- Property type. Certain property types have a higher risk of default. For example, condominiums generally are considered to have higher credit risk than single-family detached properties.
- Occupancy type. Mortgages on properties occupied by the borrower as a primary or secondary residence tend to have lower credit risk than mortgages on investment properties.

- Credit score. Credit score is a measure often used by the financial services industry, including our company, to assess borrower credit quality and the likelihood that a borrower will repay future obligations as expected. A higher credit score typically indicates lower credit risk.
- Loan purpose. Loan purpose refers to how the borrower intends to use the funds from a mortgage loan—either for a home purchase or refinancing of an existing mortgage. Cash-out refinancings have a higher risk of default than either mortgage loans used for the purchase of a property or other refinancings that restrict the amount of cash returned to the borrower.
- Geographic concentration. Local economic conditions affect borrowers' ability to repay loans and the value of collateral underlying loans. Geographic diversification reduces mortgage credit risk.
- Loan age. We monitor year of origination and loan age, which is defined as the number of years since origination. Credit losses on mortgage loans typically do not peak until the third through sixth year following origination; however, this range can vary based on many factors, including changes in macroeconomic conditions and foreclosure timelines.

Credit Risk Profile of Our Single-Family Acquisitions and Book of Business

We initiated underwriting and eligibility changes that became effective for deliveries in late 2008 and 2009 and that focused on strengthening our underwriting and eligibility standards to promote sustainable homeownership. The result of many of these changes is reflected in the substantially improved credit risk profile of our single-family loan acquisitions since 2009.

Table 21 below displays information regarding the credit characteristics of the loans in our single-family conventional guaranty book of business by acquisition period.

Table 21: Selected Credit Characteristics of Single-Family Conventional Guaranty Book of Business, by Acquisition Period

	As of December 31, 2016							
	% of Single-Family Conventional Guaranty Book of Business(1)		Current Estimated Mark-to-Market LTV Ratio(2)		Current Estimated Mark-to-Market LTV Ratio >100%(3)		Serious Delinquency Rate(4)	
2009-2016 acquisitions, excluding HARP and other Refi Plus loans	72	%	59	%	*	%	0.25	%
HARP loans(5)	9		76		10		1.15	
Other Refi Plus loans(6)	7		45		*		0.44	
2005-2008 acquisitions	8		72		12		6.21	
2004 and prior acquisitions	4		43		1		2.85	
Total single-family conventional guaranty book of business	100	%	60	%	2	%	1.20	%

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* Represents less than 0.5%.

(1) Calculated based on the aggregate unpaid principal balance of single-family loans for each category divided by the aggregate unpaid principal balance of loans in our single-family conventional guaranty book of business as of December 31, 2016.

(2) The aggregate estimated mark-to-market LTV ratio is based on the unpaid principal balance of the loans as of December 31, 2016 divided by the estimated current value of the properties, which we calculate using an internal valuation model that estimates periodic changes in home value. Excludes loans for which this information is not readily available.

(3) The current estimated mark-to-market LTV ratio greater than 100% is based on the unpaid principal balance of the loans with mark-to-market LTV ratios greater than 100% for each category as of December 31, 2016 divided by the aggregate unpaid principal balance of loans for each category in our single-family conventional guaranty book

of business as of December 31, 2016.

(4) The serious delinquency rates for loans acquired in more recent years will be higher after the loans have aged, but we do not expect them to approach the levels of the December 31, 2016 serious delinquency rates of loans acquired in 2005 through 2008.

(5) HARP loans, which we began to acquire in 2009, have LTV ratios at origination in excess of 80%.

(6) Other Refi Plus loans, which we began to acquire in 2009, includes all other Refi Plus loans that are not HARP loans.

Table 22 displays our single-family conventional business volumes and our single-family conventional guaranty book of business, based on certain key risk characteristics that we use to evaluate the risk profile and credit quality of our single-family loans.

Table 22: Risk Characteristics of Single-Family Conventional Business Volume and Guaranty Book of Business[1]

	Percent of Single-Family Conventional Business Volume at Acquisition[2] For the Year Ended December 31,			Percent of Single-Family Conventional Guaranty Book of Business[3][4] As of December 31,		
	2016	2015	2014	2016	2015	2014
Original LTV ratio:[5]						
<= 60%	21 %	18 %	16 %	21 %	21 %	21 %
60.01% to 70%	14	14	12	14	14	14
70.01% to 80%	38	40	40	38	38	38
80.01% to 90%	12	12	13	11	11	11
90.01% to 100%	15	15	16	12	12	11
Greater than 100%	*	1	3	4	4	5
Total	100 %	100 %	100 %	100 %	100 %	100 %
Weighted average	74 %	75 %	77 %	75 %	75 %	75 %
Average loan amount	$230,249	$220,090	$202,834	$163,200	$160,741	$159,997
Estimated mark-to-market LTV ratio:[6]						
<= 60%				49 %	46 %	42 %
60.01% to 70%				19	19	19
70.01% to 80%				17	17	18
80.01% to 90%				9	10	10
90.01% to 100%				4	5	6
Greater than 100%				2	3	5
Total				100 %	100 %	100 %
Weighted average				60 %	62 %	64 %
Product type:						
Fixed-rate:[7]						
Long-term	81 %	81 %	78 %	77 %	76 %	74 %
Intermediate-term	17	17	17	17	17	17
Interest-only	—	—	—	*	*	1
Total fixed-rate	98	98	95	94	93	92
Adjustable-rate:						
Interest-only	—	—	*	1	2	2
Other ARMs	2	2	5	5	5	6
Total adjustable-rate	2	2	5	6	7	8
Total	100 %	100 %	100 %	100 %	100 %	100 %
Number of property units:						
1 unit	98 %	97 %	97 %	97 %	97 %	97 %
2-4 units	2	3	3	3	3	3
Total	100 %	100 %	100 %	100 %	100 %	100 %
Property type:						
Single-family homes	90 %	90 %	90 %	91 %	91 %	91 %
Condo/Co-op	10	10	10	9	9	9
Total	100 %	100 %	100 %	100 %	100 %	100 %

	Percent of Single-Family Conventional Business Volume at Acquisition[(2)] For the Year Ended December 31,			Percent of Single-Family Conventional Guaranty Book of Business[(3)(4)] As of December 31,		
	2016	2015	2014	2016	2015	2014
Occupancy type:						
Primary residence	90 %	88 %	87 %	88 %	88 %	88 %
Second/vacation home	4	4	4	4	4	4
Investor	6	8	9	8	8	8
Total	100 %	100 %	100 %	100 %	100 %	100 %
FICO credit score at origination:						
< 620[(8)]	* %	1 %	1 %	2 %	2 %	3 %
620 to < 660	4	5	6	5	5	5
660 to < 700	11	12	13	12	12	12
700 to < 740	21	20	21	20	20	19
>= 740	64	62	59	61	61	61
Total	100 %	100 %	100 %	100 %	100 %	100 %
Weighted average	750	748	744	745	744	744
Loan purpose:						
Purchase	44 %	45 %	52 %	35 %	33 %	31 %
Cash-out refinance	19	19	16	20	20	20
Other refinance	37	36	32	45	47	49
Total	100 %	100 %	100 %	100 %	100 %	100 %
Geographic concentration:[(9)]						
Midwest	14 %	14 %	15 %	15 %	15 %	15 %
Northeast	14	14	15	18	19	19
Southeast	21	20	20	22	22	22
Southwest	19	20	20	17	16	16
West	32	32	30	28	28	28
Total	100 %	100 %	100 %	100 %	100 %	100 %
Origination year:						
<= 2007				11 %	13 %	17 %
2008				2	2	2
2009				4	5	6
2010				5	7	9
2011				6	8	10
2012				17	21	24
2013				15	18	21
2014				8	11	11
2015				14	15	—
2016				18	—	—
Total				100 %	100 %	100 %

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* Represents less than 0.5% of single-family conventional business volume or book of business.

(1)

Second lien mortgage loans held by third parties are not reflected in the original LTV or mark-to-market LTV ratios in this table.

(2) Calculated based on unpaid principal balance of single-family loans for each category at time of acquisition.

(3) Calculated based on the aggregate unpaid principal balance of single-family loans for each category divided by the aggregate unpaid principal balance of loans in our single-family conventional guaranty book of business as of the end of each period.

(4) Our single-family conventional guaranty book of business includes jumbo-conforming and high-balance loans that represented approximately 6% of our single-family conventional guaranty book of business as of December 31, 2016 and

5% as of December 31, 2015 and 2014. See “Business—Legislation and Regulation—Charter Act” and “Jumbo-Conforming and High-Balance Loans” for information on our loan limits.

(5) The original LTV ratio generally is based on the original unpaid principal balance of the loan divided by the appraised property value reported to us at the time of acquisition of the loan. Excludes loans for which this information is not readily available.

(6) The aggregate estimated mark-to-market LTV ratio is based on the unpaid principal balance of the loan as of the end of each reported period divided by the estimated current value of the property, which we calculate using an internal valuation model that estimates periodic changes in home value. Excludes loans for which this information is not readily available.

(7) Long-term fixed-rate consists of mortgage loans with maturities greater than 15 years, while intermediate-term fixed-rate loans have maturities equal to or less than 15 years. Loans with interest-only terms are included in the interest-only category regardless of their maturities.

(8) Loans acquired after 2009 with FICO credit scores at origination below 620 consist primarily of the refinance of existing loans under our Refi Plus initiative.

(9) Midwest consists of IL, IN, IA, MI, MN, NE, ND, OH, SD and WI. Northeast consists of CT, DE, ME, MA, NH, NJ, NY, PA, PR, RI, VT and VI. Southeast consists of AL, DC, FL, GA, KY, MD, MS, NC, SC, TN, VA and WV. Southwest consists of AZ, AR, CO, KS, LA, MO, NM, OK, TX and UT. West consists of AK, CA, GU, HI, ID, MT, NV, OR, WA and WY.

Our acquisitions in 2016 continued to have a strong credit profile with a weighted average original LTV ratio of 74% and a weighted average FICO credit score at origination of 750. The credit profile of our future acquisitions will depend on many factors, including: our future guaranty fee pricing and our competitors’ pricing, and any impact of that pricing on the volume and mix of loans we acquire; our future eligibility standards and those of mortgage insurers, FHA and VA; the percentage of loan originations representing refinancings; changes in interest rates; our future objectives and activities in support of those objectives, including actions we may take to reach additional underserved creditworthy borrowers; government policy; market and competitive conditions; and the volume and characteristics of HARP and high LTV refinance loans we acquire in the future. We expect the ultimate performance of all our loans will be affected by borrower behavior, public policy and macroeconomic trends, including unemployment, the economy and home prices. In addition, if lender customers retain more of the higher-quality loans they originate, it could negatively affect the credit profile of our new single-family acquisitions.

Providing Access to Credit Opportunities for Creditworthy Borrowers

Pursuant to FHFA’s conservatorship scorecards and our statutory mission, we are continuing to work to increase access to mortgage credit for creditworthy borrowers, consistent with the full extent of our applicable credit requirements and risk management practices. As part of this effort, in 2014 we worked with FHFA to revise our eligibility criteria to address a specific segment of creditworthy borrowers—those who can afford a mortgage but who lack resources for a substantial down payment—in a responsible manner by taking into account factors that would compensate for the high LTV ratios of their loans. Specifically, we changed our eligibility requirements to increase our maximum LTV ratio from 95% to 97% for loans meeting certain criteria. In addition, in 2015 we announced an improved affordable lending product, HomeReady®, which is designed for creditworthy borrowers with lower and moderate incomes and provides expanded eligibility for financing homes in designated low-income, minority and disaster-impacted communities. Our eligibility requirements for loans acquired under our revised eligibility criteria and under HomeReady include compensating factors and risk mitigants, which reduce the incidence of loans with multiple higher-risk characteristics.

In 2016, pursuant to our revised eligibility criteria and HomeReady, we acquired approximately 50,000 single-family loans with 95.01% to 97% LTV ratios from approximately 800 lenders. These loans represented 2% of the single-family loans we acquired in 2016. Although a higher LTV ratio may indicate that a loan presents a higher credit risk than a loan with a lower LTV ratio, we expect our acquisition of these loans under our revised eligibility criteria and under HomeReady will not materially affect our overall credit risk because we expect that (1) the eligibility requirements these loans must meet will limit their effect on our credit risk and (2) these loans will constitute a small portion of our acquisitions. In addition, we have experience managing the credit risk associated with loans with LTV ratios in this range.

We continue to seek new ways to responsibly expand access to mortgage credit. FHFA’s 2017 conservatorship scorecard specifies that in 2017 we should continue to work to increase access to single-family mortgage credit for creditworthy borrowers, including underserved segments of the market. To the extent we are able to encourage lenders to increase access to mortgage credit, we may acquire a greater number of single-family loans with higher risk characteristics than we acquired in recent periods; however, we expect our single-family acquisitions will continue to have a strong overall credit risk profile given our current underwriting and eligibility standards and product design.

HARP and Refi Plus Loans

Since 2009, we have offered HARP under our Refi Plus initiative, which was designed to expand refinancing opportunities for borrowers who may otherwise be unable to refinance their mortgage loans due to a decline in home values. HARP offers refinancing flexibility to eligible borrowers who are current on their loans and whose loans are owned or guaranteed by us and meet certain additional criteria. Under HARP, we allow our borrowers who have mortgage loans that have note dates prior to June 2009 with current LTV ratios greater than 80% to refinance their mortgages without obtaining new mortgage insurance in excess of what is already in place. Accordingly, HARP loans have LTV ratios at origination in excess of 80%. HARP loans cannot (1) be an adjustable-rate mortgage loan, if the initial fixed period is less than five years; (2) have an interest only feature, which permits the payment of interest without a payment of principal; (3) be a balloon mortgage loan; or (4) have the potential for negative amortization. The loans we acquire under HARP have higher LTV ratios than we would otherwise permit, greater than 100% in some cases. Since 2012, we have acquired HARP loans with LTV ratios greater than 125% for fixed-rate loans of eligible borrowers. In addition to the high LTV ratios that characterize HARP loans, some borrowers for HARP and Refi Plus loans may also have lower FICO credit scores and may provide less documentation than we would otherwise require. As of December 31, 2016, HARP loans, which constituted 9% of our single-family book of business, had a weighted average FICO credit score at origination of 726 compared with 745 for loans in our single-family book of business overall.

Loans we acquire under Refi Plus and HARP represent refinancings of loans that are already in our guaranty book of business. The credit risk associated with the newly acquired loans essentially replaces the credit risk on the loans that we already held prior to the refinancing. These loans have higher risk profiles and higher serious delinquency rates than the other loans we have acquired since the beginning of 2009. However, we expect these loans will perform better than the loans they replace because HARP and Refi Plus loans should either reduce the borrowers' monthly payments or provide more stable terms than the borrowers' old loans (for example, by refinancing into a mortgage with a fixed interest rate instead of an adjustable rate). HARP loans constituted approximately 1% of our total single-family acquisitions in 2016, compared with approximately 2% of total single-family acquisitions in 2015 and 6% in 2014. We expect the volume of refinancings under HARP to continue to remain a small percentage of our acquisitions between now and the program's expiration, due to the small population of borrowers with loans that have high LTV ratios who are willing to refinance and would benefit from refinancing.

For information on the serious delinquency rates and current mark-to-market LTV ratios as of December 31, 2016 of single-family loans we acquired under HARP and Refi Plus, compared with other single-family loans we have acquired, see "Table 21: Selected Credit Characteristics of Single-Family Conventional Guaranty Book of Business, by Acquisition Period."

In August 2016, FHFA directed us and Freddie Mac to implement a new high LTV refinance offering aimed at borrowers who are making their mortgage payments on time but whose LTV ratio exceeds the maximum allowed for our standard refinance products. Unlike HARP, the new high LTV refinance offering will not be limited to mortgage loans made prior to June 2009; however, existing Refi Plus (including HARP) mortgage loans will not be eligible for the offering. As with HARP, borrowers eligible for the offering generally will not be subject to a minimum credit score and there generally will be no maximum debt-to-income ratio or maximum LTV ratio. Borrower eligibility requirements will include being current on their mortgage payments and not having any 30-day delinquencies within the past six months and no more than one 30-day delinquency in the past twelve months. This new high LTV refinance offering is scheduled to be available beginning in October 2017. To ensure that high LTV borrowers who are eligible for HARP will not be without a refinance option while the new refinance offering is being implemented, FHFA also directed us and Freddie Mac to extend the HARP sunset date from December 31, 2016 to September 30, 2017. We have also extended the end date of our Refi Plus initiative to September 30, 2017.

Alt-A Loans

We classify certain loans as Alt-A so that we can discuss our exposure to Alt-A loans in this Form 10-K and elsewhere. However, there is no universally accepted definition of Alt-A loans. Our single-family conventional

guaranty book of business includes loans with some features that are similar to Alt-A loans that we have not classified as Alt-A because they do not meet our classification criteria.

We do not rely solely on our classifications of loans as Alt-A to evaluate the credit risk exposure relating to these loans in our single-family conventional guaranty book of business. For more information about the credit risk characteristics of loans in our single-family guaranty book of business, see "Table 22: Risk Characteristics of Single-Family Conventional Business Volume and Guaranty Book of Business," "Note 3, Mortgage Loans" and "Note 15, Concentrations of Credit Risk."

Our exposure to Alt-A loans included in our single-family conventional guaranty book of business, based on the classification criteria described in this section, does not include (1) our investments in private-label mortgage-related securities backed by Alt-A loans or (2) resecuritizations of private-label mortgage-related securities backed by Alt-A mortgage loans that we have guaranteed. See "Note 5, Investments in Securities" for more information on our exposure to private-label mortgage-related securities backed by Alt-A loans.

We have classified a mortgage loan as Alt-A if and only if the lender that delivered the loan to us classified the loan as Alt-A, based on documentation or other features. The unpaid principal balance of Alt-A loans included in our single-family conventional guaranty book of business of $86.8 billion as of December 31, 2016, represented approximately 3% of our single-family conventional guaranty book of business. Because we discontinued the purchase of newly originated Alt-A loans in 2009, except for those that represent the refinancing of a loan we acquired prior to 2009, we expect our acquisitions of Alt-A mortgage loans to continue to be minimal in future periods and the percentage of the book of business attributable to Alt-A to continue to decrease over time.

Jumbo-Conforming and High-Balance Loans

The outstanding unpaid principal balance of our jumbo-conforming and high-balance loans was $166.0 billion, or 6.0% of our single-family conventional guaranty book of business as of December 31, 2016, compared with $149.1 billion, or 5.4% of our single-family conventional guaranty book of business as of December 31, 2015. The standard conforming loan limit for a one-unit property was $417,000 from 2006 to 2016. From 2008 to 2011, our loan limits were higher in specified high-cost areas, reaching as high as $729,750 for one-unit properties; however, our loan limits for loans originated after September 30, 2011 to December 31, 2016 decreased in specified high-cost areas to an amount not to exceed $625,500 for one-unit properties. See "Business—Legislation and Regulation—Charter Act" for additional information on our loan limits, including the higher loan limits that apply in 2017.

Reverse Mortgages

The outstanding unpaid principal balance of reverse mortgage loans and Fannie Mae MBS backed by reverse mortgage loans in our guaranty book of business was $36.9 billion as of December 31, 2016 and $40.9 billion as of December 31, 2015. In 2010, we ceased acquisitions of newly originated reverse mortgages. The principal balance of our reverse mortgage loans could increase over time, as each month the scheduled and unscheduled payments, interest, mortgage insurance premium, servicing fee and default-related costs accrue to increase the unpaid principal balance. The majority of these loans are home equity conversion mortgages insured by the federal government through FHA.

Mortgage Products with Rate Resets

ARMs are mortgage loans with an interest rate that adjusts periodically over the life of the mortgage based on changes in a specified index. Interest-only loans allow the borrower to pay only the monthly interest due, and none of the principal, for a fixed term. The majority of our interest-only loans are ARMs. Our negative-amortizing loans are ARMs that allow the borrower to make monthly payments that are less than the interest actually accrued for the period. The unpaid interest is added to the principal balance of the loan, which increases the outstanding loan balance. ARMs represented approximately 6% of our single-family conventional guaranty book of business as of December 31, 2016 and 7% as of December 31, 2015.

Rate reset modifications are mortgage loans we have modified with terms that include a reduction in the borrowers' interest rate that is fixed for an initial period and is followed by one or more annual interest rate increases in the future. The majority of these rate reset modifications are performing loans that were modified under the Home Affordable Modification Program ("HAMP®") and have fixed interest rates for an initial five-year period followed by annual interest rate increases, of up to 1 percent per year, until the mortgage rate reaches the prevailing market rate at the time of modification. The outstanding unpaid principal balance of rate reset modifications in our guaranty book of business was $64.3 billion as of December 31, 2016. During 2016, approximately 72% of these modified loans experienced an interest rate reset to a weighted average interest rate of 3.78%. In anticipation of potential financial hardship related to interest rate increases, we have directed servicers to evaluate rate reset modifications for a re-modification if the loan is at imminent risk of default and the borrower requests a loan modification or if the loan becomes 60 days delinquent within the first 12 months after an interest rate adjustment. Additionally, for borrowers with HAMP modifications we extended "pay for performance" incentives, in the form of principal curtailment, to encourage borrowers to stay current on their mortgages after the initial interest rate reset and to reduce their monthly payments in cases where the borrower chooses to re-amortize their unpaid principal balance following receipt of the incentive.

Table 23 displays the unpaid principal balance for ARMs, rate reset modifications and fixed-rate interest-only loans in our single-family guaranty book of business, aggregated by product type and categorized by the year of their next scheduled contractual reset date. The contractual reset is either an adjustment to the loan's interest rate or a scheduled change to the loan's monthly payment to begin to reflect the payment of principal. The timing of the actual reset dates may differ from those presented due to a number of factors, including refinancing or exercising of other provisions within the terms of the mortgage.

Table 23: Single-Family Adjustable-Rate Mortgage and Rate Reset Modifications by Year[1]

	Reset Year						
	2017	2018	2019	2020	2021	Thereafter	Total
	(Dollars in millions)						
ARMs—Amortizing	$28,739	$5,176	$8,452	$7,215	$8,194	$ 13,583	$71,359
ARMs—Interest Only and Negative Amortizing	22,308	627	737	688	223	756	25,339
Rate Reset Modifications	46,820	4,841	3,616	2,108	1,676	106	59,167
Fixed-Rate Interest Only	2,238	466	29	63	62	52	2,910

(1) Excludes loans for which there is not an additional reset for the remaining life of the loan.

We have not observed a materially different performance trend for rate reset modifications, interest-only loans or negative-amortizing loans that have recently reset as compared to those that are still in the initial period. We believe the current performance trend for interest-only loans and negative-amortizing loans is the result of the current low interest rate environment and expect that this trend may not continue if interest rates rise significantly.

Problem Loan Management

Overview

Our problem loan management strategies are primarily focused on reducing defaults to avoid losses that would otherwise occur and pursuing foreclosure alternatives to attempt to minimize the severity of the losses we incur. If a borrower does not make required payments, or is in jeopardy of not making payments, we work with the loan servicer to offer workout solutions to minimize the likelihood of foreclosure as well as the severity of loss. Our loan workouts reflect our various types of home retention solutions, including loan modifications, repayment plans and forbearances, and foreclosure alternatives, including short sales and deeds-in-lieu of foreclosure. When appropriate, we seek to move to foreclosure expeditiously.

In the following section, we present statistics on our problem loans, describe efforts undertaken to manage these loans and prevent foreclosures, and provide metrics regarding the performance of our loan workout activities. Unless otherwise noted, single-family delinquency data is calculated based on number of loans. We include single-family conventional loans that we own and those that back Fannie Mae MBS in the calculation of the single-family delinquency rate. Seriously delinquent loans are loans that are 90 days or more past due or in the foreclosure process. Percentage of book outstanding calculations are based on the unpaid principal balance of loans for each category divided by the unpaid principal balance of our total single-family guaranty book of business for which we have detailed loan level information.

Problem Loan Statistics

Table 24 displays the delinquency status of loans in our single-family conventional guaranty book of business (based on number of loans) and changes in the balance of seriously delinquent loans in our single-family conventional guaranty book of business.

Table 24: Delinquency Status and Activity of Single-Family Conventional Loans

	As of December 31,		
	2016	2015	2014
Delinquency status:			
30 to 59 days delinquent	1.51%	1.46%	1.47%
60 to 89 days delinquent	0.41	0.41	0.43
Seriously delinquent (“SDQ”)	1.20	1.55	1.89
Percentage of SDQ loans that have been delinquent for more than 180 days	59 %	67 %	70 %
Percentage of SDQ loans that have been delinquent for more than two years	21	30	34

	For the Year Ended December 31,		
	2016	2015	2014
Single-family SDQ loans (number of loans):			
Beginning balance	267,174	329,590	418,837
Additions	252,590	266,136	306,464
Removals:			
Modifications and other loan workouts	(77,800)	(91,241)	(118,860)
Liquidations and sales	(117,459)	(117,884)	(151,586)
Cured or less than 90 days delinquent	(117,956)	(119,427)	(125,265)
Total removals	(313,215)	(328,552)	(395,711)
Ending balance	206,549	267,174	329,590

Our single-family serious delinquency rate was 1.20% as of December 31, 2016, compared to 1.55% as of December 31, 2015. The decrease in our serious delinquency rate in 2016 was primarily the result of home retention solutions, foreclosure alternatives and completed foreclosures, improved loan payment performance and nonperforming loan sales. Additionally, the percentage of seriously delinquent loans that have been delinquent for more than 180 days and for more than two years decreased in 2016 primarily due to nonperforming loan sales of loans that had been delinquent for more than two years.

We expect our single-family serious delinquency rate to continue to decline; however, as our single-family serious delinquency rate has already declined significantly over the past several years, we expect more modest declines in this rate in the future. Our single-family serious delinquency rate and the period of time that loans remain seriously delinquent continue to be negatively affected by the length of time required to complete a foreclosure in some states. Other factors that affect our single-family serious delinquency rate include the pace of loan modifications, the timing and volume of nonperforming loan sales we make, servicer performance, and changes in home prices, unemployment levels and other macroeconomic conditions.

Certain higher-risk loan categories, such as Alt-A loans, loans with higher mark-to-market LTV ratios, and our 2005 through 2008 loan vintages, continue to exhibit higher than average delinquency rates and/or account for a higher share of our credit losses. Single-family loans originated in 2005 through 2008 constituted 8% of our single-family book of business as of December 31, 2016, but constituted 51% of our seriously delinquent single-family loans as of December 31, 2016 and drove 65% of our 2016 single-family credit losses. In addition, loans in certain states such as Florida, New Jersey and New York have exhibited higher than average delinquency rates and/or account for a higher share of our credit losses.

Table 25 displays the serious delinquency rates for, and the percentage of our total seriously delinquent single-family conventional loans represented by, the specified loan categories. We also include information for our loans

in California, as this state accounts for a large share of our single-family conventional guaranty book of business. The reported categories are not mutually exclusive.

Table 25: Single-Family Conventional Seriously Delinquent Loan Concentration Analysis

	As of December 31,								
	2016			2015			2014		
	Percentage of Book Outstanding	Percentage of Seriously Delinquent Loans(1)	Serious Delinquency Rate	Percentage of Book Outstanding	Percentage of Seriously Delinquent Loans(1)	Serious Delinquency Rate	Percentage of Book Outstanding	Percentage of Seriously Delinquent Loans(1)	Serious Delinquency Rate
States:									
California	19%	6 %	0.50 %	20%	5 %	0.58 %	20%	5 %	0.70 %
Florida	6	10	1.89	6	12	2.86	6	15	4.42
New Jersey	4	8	3.07	4	10	4.87	4	10	5.78
New York	5	10	2.65	5	11	3.55	5	10	4.17
All other states	66	66	1.11	65	62	1.34	65	60	1.57
Product type:									
Alt-A	3	15	5.00	4	17	6.53	4	18	7.77
Vintages:									
2004 and prior	5	26	2.82	5	26	3.06	7	28	3.26
2005-2008	8	51	6.39	10	57	7.60	12	59	8.39
2009-2016	87	23	0.36	85	17	0.36	81	13	0.35
Estimated mark-to-market LTV ratio:									
<= 60%	49	33	0.70	46	27	0.78	42	23	0.88
60.01% to 70%	19	15	1.13	19	14	1.28	19	12	1.36
70.01% to 80%	17	16	1.31	17	15	1.59	18	14	1.75
80.01% to 90%	9	13	2.11	10	14	2.67	10	14	3.04
90.01% to 100%	4	9	2.99	5	11	4.05	6	12	4.59
Greater than 100%	2	14	10.44	3	19	10.76	5	25	10.98
Credit enhanced:(2)									
Primary MI & other(3)	18	28	2.18	16	26	2.86	15	26	3.77
Credit risk transfer(4)	22	2	0.17	15	1	0.10	9	*	0.04
Non-credit enhanced	67	70	1.16	73	73	1.46	78	74	1.71

* Represents less than 0.5%.

(1) Calculated based on the number of single-family loans that were seriously delinquent for each category divided by the total number of single-family conventional loans that were seriously delinquent.

(2) The credit-enhanced categories are not mutually exclusive. A loan with primary mortgage insurance that is also covered by a credit risk transfer transaction will be included in both the “Primary MI & other” category and the “Credit risk transfer” category. As a result, the “Credit enhanced” and “Non-credit enhanced” categories do not sum to 100%. The total percentage of our single-family conventional guaranty book of business with some form of credit enhancement as of December 31, 2016 was 33%.

(3) Refers to loans included in an agreement used to reduce credit risk by requiring primary mortgage insurance, collateral, letters of credit, corporate guarantees, or other agreements to provide an entity with some assurance that it will be compensated to some degree in the event of a financial loss. Excludes loans covered by credit risk transfer transactions unless such loans are also covered by primary mortgage insurance.

(4) Refers to loans included in reference pools for credit risk transfer transactions, including loans in these transactions that are also covered by primary mortgage insurance.

We provide information on our credit-related income and credit losses in "Consolidated Results of Operations—Credit-Related Income (Expense)." See "Table 10: Credit Loss Concentration Analysis" in "Consolidated Results of Operations—Credit-Related Income (Expense)—Credit Loss Performance Metrics" for information on concentrations of our single-family credit losses in recent periods based on geography, credit characteristics and loan vintages.

Role of Servicers

The efforts of our mortgage servicers are critical in keeping people in their homes and preventing foreclosures. In recent years, we issued new standards for mortgage servicers regarding the management of delinquent loans, default prevention, and foreclosure time frames. These standards, reinforced by incentives and compensatory fees, require servicers to take a more consistent approach to homeowner communications, loans modifications and other workouts, and when necessary, foreclosures.

Our problem loan management strategies include transferring servicing on some delinquent loan populations that include loans with higher-risk characteristics to special servicers with which we have worked to develop high-touch protocols for servicing these loans. We believe retaining special servicers to service these loans using high-touch protocols will reduce our future credit losses on the transferred loan portfolio.

Loan Workout Metrics

Our loan workouts reflect our home retention solutions, including loan modifications, repayment plans and forbearances, and foreclosure alternatives, including short sales and deeds-in-lieu of foreclosure. We work with our servicers to implement our home retention solutions and foreclosure alternatives initiatives, and we emphasize the importance of early contact with borrowers and early entry into a home retention solution. We require that servicers first evaluate borrowers for eligibility under a workout option before considering foreclosure.

Loan modifications account for a significant majority of our home retention solutions. Loan modifications involve changes to the original mortgage terms such as product type, interest rate, amortization term, maturity date and/or unpaid principal balance. For many of our modifications, we will ultimately collect less than the contractual amount due under the original loan. Other resolutions and modifications may result in our receiving the full amount due, or certain installments due, under the loan over a period of time that is longer than the period of time originally provided for under the terms of the loan. Additionally, we currently offer up to twelve months of forbearance for those homeowners who are unemployed as an additional tool to help homeowners avoid foreclosure.

Approximately 46% of our performing loan modifications include a reduction in the borrower's interest rate that is fixed for an initial period and may be followed by one or more annual interest rate increases. The majority of these modifications with rate resets had their second interest rate resets in 2016. See "Table 23: Single-Family Adjustable-Rate Mortgage and Rate Reset Modifications by Year" in "Single-Family Portfolio Diversification and Monitoring—Mortgage Products with Rate Resets" for additional information on the timing of these initial interest rate resets.

Our primary loan modification initiatives have included HAMP, which no longer accepted a complete loss mitigation application after December 31, 2016, and our proprietary Standard and Streamlined Modification initiatives. In December 2016, we announced a new modification program, the Fannie Mae Flex Modification, which will replace both HAMP and our Standard and Streamlined Modification programs with a single modification program that leverages the lessons learned from the housing crisis. The Flex Modification program may be implemented by our servicers as soon as March 1, 2017 but no later than October 1, 2017. The program will offer additional payment relief allowing forbearance of principal to an 80% mark-to-market LTV ratio for eligible borrowers, and will target a 20% payment reduction.

In addition, as directed by FHFA, in April 2016, we announced a new principal reduction modification program. This program is a targeted effort to assist seriously delinquent borrowers with negative equity in their homes avoid foreclosure and help improve the stability of communities that have not yet recovered from the housing crisis. The program offers principal reduction to borrowers who, as of March 1, 2016, met the specific requirements set forth in the program, including the following: the borrower was at least 90 days delinquent, had a loan with an unpaid principal balance of $250,000 or less, and was an owner-occupant. In addition, at the time of evaluation, the loan must have a post-modification mark-to-market LTV ratio of more than 115%. The amount of principal reduction we will provide to a borrower who meets the requirements of the program is the lesser of: (1) the amount that would create a post-modification mark-to-market LTV ratio of 115%; or (2) 30% of the gross post-modified unpaid principal balance of the loan. We estimate that approximately 22,000 loans in our single-family guaranty book of business as of March 31, 2016 were eligible for the principal reduction modification program. We expect trial modifications under this program to continue through the first quarter of 2017, converting to permanent modifications between now and the second quarter of 2017.

We also continue to focus on foreclosure alternatives for borrowers who are unable to retain their homes. Foreclosure alternatives may be more appropriate if the borrower has experienced a significant adverse change in financial condition due to events such as unemployment or reduced income, divorce, or unexpected issues like medical bills and is therefore no longer able to make the required mortgage payments. To avoid foreclosure and satisfy the first-lien mortgage obligation, our servicers work with a borrower to accept a deed-in-lieu of foreclosure, whereby the borrower voluntarily signs over the title to their property to the servicer, or to sell the home prior to foreclosure in a short sale, whereby the borrower sells the home for less than the full amount owed to Fannie Mae under the mortgage loan. These alternatives are designed to reduce our credit losses while helping borrowers avoid having to go through a foreclosure. We work to obtain the highest price possible for the properties sold in short sales and, in 2016, we received net sales proceeds from our short sale transactions equal to 74% of the loans' unpaid principal balance, compared with 73% in 2015. The existence of a second lien may limit our ability to provide borrowers with loan workout options, particularly those that are part of our foreclosure prevention efforts; however, we are not required to contact a second lien holder to obtain their approval prior to providing a borrower with a loan modification.

Table 26 displays statistics on our single-family loan workouts that were completed, by type. These statistics include loan modifications but do not include trial modifications, loans to certain borrowers who have received bankruptcy relief that are classified as TDRs, or repayment or forbearance plans that have been initiated but not completed. As of December 31, 2016, there were approximately 31,100 loans in a trial modification period.

Table 26: Statistics on Single-Family Loan Workouts

	For the Year Ended December 31,					
	2016		2015		2014	
	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans	Unpaid Principal Balance	Number of Loans
	(Dollars in millions)					
Home retention solutions:						
Modifications	$13,474	80,304	$15,723	94,212	$20,686	122,823
Repayment plans and forbearances completed[1]	904	6,423	835	5,996	986	7,309
Total home retention solutions	14,378	86,727	16,558	100,208	21,672	130,132
Foreclosure alternatives:						
Short sales	2,275	11,009	3,033	14,716	4,795	23,188
Deeds-in-lieu of foreclosure	865	5,752	1,145	7,361	1,786	11,292
Total foreclosure alternatives	3,140	16,761	4,178	22,077	6,581	34,480
Total loan workouts	$17,518	103,488	$20,736	122,285	$28,253	164,612
Loan workouts as a percentage of single-family guaranty book of business	0.62 %	0.60 %	0.73 %	0.71 %	0.99 %	0.94 %

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(1) Repayment plans reflect only those plans associated with loans that were 60 days or more delinquent. Forbearances reflect loans that were 90 days or more delinquent.

The volume of home retention solutions completed in 2016 decreased compared with 2015, primarily due to a decline in the number of delinquent loans in 2016 compared with 2015.

The majority of our home retention strategies, including trial modifications and loans to certain borrowers who received bankruptcy relief, are classified as TDRs upon initiation. Table 27 displays the post-modification unpaid principal balance of single-family HFI loans classified as TDRs. For more information on the impact of TDRs, see "Note 3, Mortgage Loans."

Table 27: Single-Family Troubled Debt Restructuring Activity

	For the Year Ended December 31,		
	2016	2015	2014
	(Dollars in millions)		
Beginning balance	$182,655	$197,299	$200,507
New TDRs	9,609	12,978	19,050
Foreclosures[1]	(4,098)	(7,173)	(10,484)
Payoffs and other reductions	(22,206)	(20,449)	(11,774)
Ending balance	$165,960	$182,655	$197,299

(1) Consists of foreclosures, deeds-in-lieu of foreclosure, short sales and third-party sales.

We had single-family HFS loans classified as TDRs with an unpaid principal balance of $2.5 billion as of December 31, 2016 and $3.1 billion as of December 31, 2015. There were no single-family HFS loans classified as TDRs as of December 31, 2014.

Table 28 displays the percentage of our single-family loan modifications completed during 2015 and 2014 that were current or paid off one year after modification, as well as the percentage of our single-family loan modifications completed during 2014 that were current or paid off two years after modification.

Table 28: Percentage of Single-Family Loan Modifications That Were Current or Paid Off at One and Two Years Post-Modification[1]

	2015				2014			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
One Year Post-Modification								
HAMP modifications	75%	76%	78%	79%	79%	82%	83%	83%
Non-HAMP modifications	63	63	66	65	65	67	68	70
Total	64	64	67	67	67	69	70	72
Two Years Post-Modification								
HAMP modifications					77%	80%	80%	81%
Non-HAMP modifications					65	66	67	68
Total					67	68	69	70

(1) Modifications do not reflect loans currently in trial modifications.

Nonperforming Loan Sales

FHFA's 2016 and 2017 conservatorship scorecards include objectives relating to reducing the number of our severely-aged delinquent loans, including through nonperforming loan sales. During 2016, we sold approximately 29,600 nonperforming loans with an aggregate unpaid principal balance of $5.5 billion. As of December 31, 2016, we had sold a total of approximately 40,000 nonperforming loans with an aggregate unpaid principal balance of $7.6 billion. We plan to complete additional nonperforming loan sales in the future.

REO Management

Foreclosure and REO activity affect the amount of credit losses we realize in a given period. Table 29 displays our foreclosure activity by region. Regional REO acquisition and charge-off trends generally follow a pattern that is similar to, but lags, that of regional delinquency trends.

Table 29: Single-Family Foreclosed Properties

	For the Year Ended December 31,		
	2016	2015	2014
Single-family foreclosed properties (number of properties):			
Beginning of period inventory of single-family foreclosed properties (REO)[1]	57,253	87,063	103,229
Acquisitions by geographic area:[2]			
Midwest	12,379	17,024	26,013
Northeast	12,389	15,553	15,337
Southeast	16,977	29,618	48,647
Southwest	6,984	8,522	13,437
West	4,780	7,919	13,203
Total properties acquired through foreclosure[1]	53,509	78,636	116,637
Dispositions of REO	(72,669)	(108,446)	(132,803)
End of period inventory of single-family foreclosed properties (REO)[1]	38,093	57,253	87,063
Carrying value of single-family foreclosed properties (dollars in millions)	$4,372	$6,608	$9,745
Single-family foreclosure rate[3]	0.31 %	0.45 %	0.67 %
REO net sales prices to unpaid principal balance[4]	74 %	72 %	69 %
Short sales net sales price to unpaid principal balance[5]	74 %	73 %	72 %

(1) Includes acquisitions through deeds-in-lieu of foreclosure. Also includes held for use properties, which are reported in our consolidated balance sheets as a component of "Other assets."

(2) See footnote 9 to "Table 22: Risk Characteristics of Single-Family Conventional Business Volume and Guaranty Book of Business" for states included in each geographic region.

(3) Estimated based on the total number of properties acquired through foreclosure or deeds-in-lieu of foreclosure as a percentage of the total number of loans in our single-family guaranty book of business as of the end of each respective period.

(4) Calculated as the amount of sale proceeds received on disposition of REO properties during the respective periods, excluding those subject to repurchase requests made to our sellers or servicers, divided by the aggregate unpaid principal balance of the related loans at the time of foreclosure. Net sales price represents the contract sales price less selling costs for the property and other charges paid by the seller at closing.

(5) Calculated as the amount of sale proceeds received on properties sold in short sale transactions during the respective periods divided by the aggregate unpaid principal balance of the related loans. Net sales price represents the contract sales price less the selling costs for the property and other charges paid by the seller at the closing, including borrower relocation incentive payments and subordinate lien(s) negotiated payoffs.

The continued decrease in the number of our seriously delinquent single-family loans resulted in a reduction in the number of REO acquisitions in 2016 compared with 2015 and 2014.

If a loan defaults and we acquire a home through foreclosure or a deed-in-lieu of foreclosure, we market and sell the home through local real estate professionals. Our primary objectives are both to minimize the severity of loss to Fannie Mae by maximizing sales prices and to stabilize neighborhoods by preventing empty homes from depressing home values. In cases where the property does not sell, we use alternative methods of disposition, including selling homes to municipalities, other public entities or non-profit organizations, and selling properties through public auctions.

Neighborhood stabilization is a core principle in our approach to managing our REO inventory. As a result, we seek to keep properties in good condition and, where appropriate, repair them to make them more marketable and increase the likelihood that an owner occupant will purchase the properties. In addition, we encourage homeownership through our First Look™ marketing period. During this First Look period, owner occupants, some nonprofit organizations and public entities may submit offers and purchase properties without competition from investors. Approximately 55% of the single-family properties we sold in 2016 were purchased by owner occupants, nonprofit organizations or public entities.

In some cases, we engage in third party sales at foreclosure, which allow us to avoid maintenance and other REO expenses we would have incurred had we acquired the property.

We currently lease properties to tenants who occupied the properties before we acquired them into our REO inventory and to eligible borrowers who executed a deed-in-lieu of foreclosure, which can minimize disruption by providing additional time to find alternate housing, help stabilize local communities, provide us with rental income, and support our compliance with state and local laws protecting tenants in foreclosed properties. As of December 31, 2016, approximately 770 tenants leased our REO properties.

We continue to manage our REO inventory to appropriately control costs and maximize sales proceeds. However, we are unable to market and sell a large portion of our inventory, primarily due to occupancy and state or local redemption or confirmation periods, which extends the amount of time it takes to bring our properties to a marketable state and eventually dispose of them. This results in higher foreclosed property expenses, which include costs related to maintaining the property and ensuring that the property is vacant. As of December 31, 2016 approximately 40% of our REO properties were unable to be marketed, 26% of our REO properties were available for sale, 17% of our REO properties were pending sale settlement and 17% of our REO properties were pending appraisals and being prepared to be listed for sale.

Table 30 displays the proportionate share of foreclosures as compared with their share of our single-family guaranty book of business for the states that have a higher concentration of foreclosures. Table 30 also displays this information for California, as this state accounts for a large share of our single-family conventional guaranty book of business.

Table 30: Single-Family Acquired Property Concentration Analysis

	As of	For the Year Ended	As of	For the Year Ended	As of	For the Year Ended
	December 31, 2016		December 31, 2015		December 31, 2014	
	Percentage of Book Outstanding[(1)]	Percentage of Properties Acquired by Foreclosure[(2)]	Percentage of Book Outstanding[(1)]	Percentage of Properties Acquired by Foreclosure[(2)]	Percentage of Book Outstanding[(1)]	Percentage of Properties Acquired by Foreclosure[(2)]
States:						
California	20 %	4 %	20 %	4 %	20 %	5 %
Florida	6	13	6	20	6	24
Illinois	4	6	4	7	4	7
New Jersey	4	7	4	6	4	3

(1) Calculated based on the aggregate unpaid principal balance of single-family conventional loans, where we have detailed loan level information, for each category divided by the aggregate unpaid principal balance of our single-family conventional guaranty book of business.

(2) Calculated based on the number of properties acquired through foreclosure or deed-in-lieu of foreclosure during the period for each category divided by the total number of properties acquired through foreclosure during the same period.

Multifamily Business

Multifamily Business Activities

Overview

Our Multifamily business provides mortgage market liquidity primarily for properties with five or more residential units, which may be apartment communities, cooperative properties, seniors housing, dedicated student housing or manufactured housing communities. Our Multifamily business works with our lender customers to provide funds to the mortgage market primarily by securitizing multifamily mortgage loans into Fannie Mae MBS. We also purchase multifamily mortgage loans and provide credit enhancement for bonds issued by state and local housing finance authorities to finance multifamily housing. Our Multifamily business also supports liquidity in the mortgage market and the business of our lender customers through other activities, such as issuing structured Fannie Mae MBS backed by multifamily mortgage assets and buying and selling multifamily agency mortgage-backed securities.

Revenues for our Multifamily business are derived primarily from net interest income. Our primary sources of multifamily net interest income are: (1) the guaranty fees we receive as compensation for assuming and managing the credit risk on the multifamily mortgage loans underlying Fannie Mae MBS held by third parties; and (2) the difference between the interest income earned on the multifamily mortgage assets in our retained mortgage portfolio, including CMBS and other non-agency securities, and the interest expense associated with the debt that funds those assets. Our Multifamily business also earns revenues from other fees associated with multifamily business activities, including yield maintenance income.

Key Characteristics of the Multifamily Mortgage Market and Fannie Mae's Multifamily Business

The multifamily mortgage market and our transactions in that market have a number of key characteristics that affect our multifamily activities and distinguish them from our activities in the single-family residential mortgage market.

- Funding sources: The multifamily market is made up of a wide variety of lending sources, including commercial banks, life insurance companies, investment banks, FHA, state and local housing finance agencies, and the GSEs.
- Lenders: During 2016, we executed multifamily transactions with 30 lenders. Of these, 25 lenders delivered loans to us under our DUS program. In determining whether to partner with a multifamily lender, we consider the lender's financial strength, multifamily underwriting and servicing experience, portfolio performance and willingness and ability to share in the risk of loss associated with the multifamily loans they originate.
- Loan size: The average size of a loan in our multifamily guaranty book of business is $8 million.
- Collateral: Multifamily loans are collateralized by properties that generate cash flows and effectively operate as businesses, such as garden and high-rise apartment complexes, seniors housing communities, cooperatives, dedicated student housing and manufactured housing communities.
- Borrower and sponsor profile: Multifamily borrowers are entities that are typically owned, directly or indirectly, by for-profit corporations, limited liability companies, partnerships, real estate investment trusts and individuals who invest in real estate for cash flow and equity returns in exchange for their original investment in the asset. The ultimate owners of a multifamily borrower are referred to as the borrower's "sponsors." In this report, we refer to both the borrowing entities and their sponsors as "borrowers." Because borrowing entities are typically single-asset entities, with the property as their only asset, in evaluating a borrowing entity we also evaluate its sponsors. Multifamily loans are generally non-recourse to the sponsors. When considering a multifamily borrower, creditworthiness is evaluated through a combination of quantitative and qualitative data including liquid assets, net worth, number of units owned, experience in a market and/or property type, multifamily portfolio performance, access to additional liquidity, debt maturities, asset/property management platform, senior management experience, reputation and lender exposure.
- Borrower and lender alignment: Borrowers are required to contribute equity into multifamily properties on which they borrow, while lenders generally share in any losses realized from the loans that we guarantee.
- Underwriting process: Multifamily loans require detailed underwriting of the property's operating cash flow. Our underwriting includes an evaluation of the property's ability to support the loan, property quality, market and submarket factors, and ability to exit at maturity.
- Term and lifecycle: In contrast to the standard 30-year single-family residential loan, multifamily loans typically have terms of 5, 7 or 10 years, with balloon payments due at maturity.
- Prepayment terms: Most multifamily Fannie Mae loans and MBS have protection against prepayments of loans and impose prepayment premiums, primarily yield maintenance, consistent with standard commercial investment terms.

Delegated Underwriting and Servicing

In an effort to promote product standardization in the multifamily marketplace, in 1988 Fannie Mae initiated the DUS® program for acquiring individual multifamily loans.

DUS is a unique business model in the commercial mortgage industry. The standard industry practice for a multifamily loan requires the purchaser or guarantor to underwrite or re-underwrite each loan prior to deciding whether to purchase or guaranty the loan. Under our model, DUS lenders are pre-approved and delegated the authority to underwrite and service loans on behalf of Fannie Mae. In exchange for this authority, DUS lenders are required to share with us the risk of loss over the life of the loan, as discussed in more detail in "Multifamily Mortgage Credit Risk Management." Since DUS lenders share in the credit risk, the servicing fee to the lenders includes compensation for credit risk. Delegation permits lenders to respond to customers more rapidly, as the lender generally has the authority to approve a loan within prescribed parameters, which provides an important competitive advantage. Our DUS model aligns the interests of the lender and Fannie Mae. Our current 25-member DUS lender network, which is comprised of large financial institutions and independent mortgage lenders, continues to be our principal source of multifamily loan deliveries.

Multifamily Mortgage Servicing

Multifamily mortgage servicing is typically performed by the lenders who sell the mortgages to us. Multifamily mortgage servicers that are members of our DUS network have agreed to accept loss sharing, which we believe increases the alignment of interests between us and our multifamily loan servicers. Because of our loss-sharing arrangements with our multifamily lenders, transfers of multifamily servicing rights are infrequent, and we carefully monitor our servicing relationships and enforce our right to approve servicing transfers. As a seller-servicer, the lender is responsible for evaluating the financial condition of properties and property owners, administering various types of agreements (including agreements regarding replacement reserves, completion or repair, and operations and maintenance), as well as conducting routine property inspections.

The Multifamily Markets in Which We Operate

In the multifamily mortgage market, we aim to address the rental housing needs of a wide range of the population in all markets across the country, with the substantial majority of our focus on supporting rental housing that is affordable to families earning at or below the median income in their area. Our mission requires us to serve the market steadily, rather than moving in and out depending on market conditions. Through the secondary mortgage market, we support rental housing for the workforce population, for senior citizens and students, and for families with the greatest economic need. Approximately 90% of the multifamily units we financed in 2016 were affordable to families earning at or below 120% of the median income in their area, providing support for both workforce housing and affordable housing. Our Multifamily business is organized and operated as an integrated commercial real estate finance business, addressing the spectrum of multifamily housing finance needs, including the needs described below.

- To meet the growing need for smaller multifamily property financing, we focus on the acquisition of multifamily loans up to $3 million ($5 million in high cost areas). We acquire these loans primarily from DUS lenders; however, we have also acquired these loans from other financial institutions. Over the years, we have been an active purchaser of these loans from both DUS and non-DUS lenders, and, as of December 31, 2016, they represented 48.9% of our multifamily guaranty book of business by loan count and 7.5% based on unpaid principal balance.
- To serve low- and very low-income households, we have a team that focuses exclusively on relationships with lenders financing privately-owned multifamily properties that receive public subsidies in exchange for maintaining long-term affordable rents. We enable borrowers to leverage housing programs and subsidies provided by local, state and federal agencies. These public subsidy programs are largely targeted to providing housing to families earning less than 60% of area median income (as defined by HUD) and are structured to ensure that the low and very low-income households who benefit from the subsidies pay no more than 30% of their gross monthly income for rent and utilities. As of December 31, 2016, this type of financing represented approximately 13% of our multifamily guaranty book of business, based on unpaid principal balance, including $12.3 billion in bond credit enhancements.

Multifamily Volume Cap

FHFA's 2017 conservatorship scorecard includes an objective to maintain the dollar volume of new multifamily business at or below $36.5 billion, excluding certain targeted affordable and underserved market business segments. FHFA announced in November 2016 that our multifamily volume cap for 2017 will remain at the same level as it was for 2016, based on its projections of the overall size of the multifamily finance market in 2017. FHFA's announcement stated that, as in prior years, FHFA will review its estimates of the multifamily loan origination market size on a quarterly basis and adjust the cap if necessary; however, FHFA will not reduce the cap as this could cause disruption in the market.

Multifamily Mortgage Market Conditions and Outlook

Total multifamily U.S mortgage debt outstanding was $1.15 trillion as of September 30, 2016, the latest date for which the data is available. We owned or guaranteed mortgage assets representing approximately 19% of total U.S. multifamily mortgage debt outstanding as of September 30, 2016.

National multifamily market fundamentals, which include factors such as vacancy rates and rents, remained relatively stable during most of 2016, despite an increase in new apartment supply. Although the national estimated vacancy level increased toward the end of the year, it remained near historic lows, benefiting from steady rental demand coupled with ongoing job growth and new household formation. While it is estimated that no rent growth occurred during the fourth quarter of 2016, rent growth remained positive for the year.

- Vacancy rates. According to preliminary third-party data, the national multifamily vacancy rate for institutional investment-type apartment properties was an estimated 5.25% as of December 31, 2016, up from an estimated 5.0% as of September 30, 2016 and December 31, 2015.
- Rents. Effective rents continued to increase during most of 2016, although the rate of growth slowed. National asking rents increased by an estimated 2.5% in 2016, but it is estimated that no rent growth occurred during the fourth quarter of 2016, compared with an estimated increase of 1.0% in the third quarter of 2016.

Continued demand for multifamily rental units was reflected in the estimated positive net absorption (that is, the net change in the number of occupied rental units during the time period) of at least 179,000 units in 2016, according to preliminary data from Reis, Inc. There was positive net absorption of approximately 43,000 units during the fourth quarter of 2016, compared with approximately 38,000 units during the third quarter of 2016. Although an estimated 343,000 multifamily units were added to the nation's inventory in 2016, demand remained steady for much of the year.

Vacancy rates and rents are important to loan performance because multifamily loans are generally repaid from the cash flows generated by the underlying property. Several years of improvement in these fundamentals helped to increase property values in most metropolitan areas in 2016, and contributed to the ongoing increase in new multifamily construction development. As a result, it is estimated that there will be approximately 400,000 new multifamily units completed in 2017. The bulk of this new supply is concentrated in a limited number of metropolitan areas. We believe this increase in supply will result in a slowdown in national net absorption rates, occupancy levels and effective rents in 2017. Nevertheless, we expect the overall national rental market supply and demand to remain in balance over the longer term, based on expected construction completions, expected obsolescence and positive rental household formation trends.

Multifamily Business Metrics

Table 31: Multifamily Business Key Performance Data

	For the Year Ended December 31,		
	2016	2015	2014
	(Dollars in millions)		
Securitization Activity/New Business			
Multifamily new business volume[1]	$55,309	$42,342	$28,908
Multifamily units financed from new business volume	724,000	569,000	446,000
Multifamily Fannie Mae MBS issuances[2]	$55,020	$43,923	$31,997
Multifamily Fannie Mae structured securities issuances	$10,559	$11,685	$12,040
Multifamily Fannie Mae MBS outstanding, at end of period	$223,037	$188,212	$167,010
Portfolio Data			
Multifamily retained mortgage portfolio, at end of period	$19,852	$30,778	$50,003
Credit Guaranty Activity			
Average multifamily guaranty book of business[3]	$227,957	$209,747	$200,150
Average charged guaranty fee rate on multifamily guaranty book of business (in basis points)	74.9	69.4	64.9
Multifamily credit loss ratio (in basis points)[4]	(0.2)	(2.7)	(2.3)
Multifamily serious delinquency rate, at end of period	0.05%	0.07%	0.05%
Percentage of multifamily guaranty book of business with lender risk-sharing, at end of period	94%	92%	88%

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(1) Reflects unpaid principal balance of multifamily Fannie Mae MBS issued (excluding portfolio securitizations), multifamily loans purchased, and credit enhancements provided during the period.

(2) Reflects unpaid principal balance of multifamily Fannie Mae MBS issued during the period. Includes: (a) issuances of new multifamily MBS; (b) Fannie Mae multifamily portfolio securitization transactions of $1.8 billion and $3.4 billion for the years ended December 31, 2015 and 2014, respectively. There were no Fannie Mae multifamily portfolio securitization transactions in 2016; and (c) conversions of adjustable-rate loans to fixed-rate loans and discount MBS (“DMBS”) to MBS of $118 million, $4 million and $3 million for the years ended December 31, 2016, 2015 and 2014, respectively. Multifamily MBS reissuances were $19 million and $56 million for the years ended December 31, 2016 and 2015, respectively. There were no multifamily MBS reissuances in 2014.

(3) Our multifamily guaranty book of business consists of: (a) multifamily mortgage loans of Fannie Mae; (b) multifamily mortgage loans underlying Fannie Mae MBS; and (c) other credit enhancements that we provide on multifamily mortgage assets. It excludes non-Fannie Mae multifamily mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

(4) Calculated based on Multifamily segment credit losses divided by the average multifamily guaranty book of business. Negative credit losses are the result of recoveries on previously charged-off amounts.

Multifamily new business volume increased in 2016 compared with 2015 driven by continued growth in the overall multifamily market. FHFA’s 2016 conservatorship scorecard included an objective to maintain the dollar volume of new multifamily business at or below $36.5 billion excluding certain targeted business segments. Our Multifamily business met this objective with approximately 66% of Fannie Mae’s 2016 multifamily new business volume of $55.3 billion counting towards FHFA’s 2016 multifamily volume cap.

Multifamily Business Financial Results
Table 32: Multifamily Business Financial Results

	For the Year Ended December 31,			Variance	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
	(Dollars in millions)				
Net interest income	$2,285	$2,108	$1,764	$177	$344
Fee and other income	445	712	494	(267)	218
Net revenues	2,730	2,820	2,258	(90)	562
Credit-related income[(1)]	72	201	197	(129)	4
Fair value losses, net	(41)	(262)	(45)	221	(217)
Gains from partnership investments[(2)]	91	283	301	(192)	(18)
Administrative expenses	(323)	(339)	(310)	16	(29)
Other income[(3)]	205	301	200	(96)	101
Income before federal income taxes	2,734	3,004	2,601	(270)	403
Provision for federal income taxes	(603)	(660)	(531)	57	(129)
Less: Net income attributable to noncontrolling interest	—	(1)	(1)	1	—
Net income attributable to Fannie Mae	$2,131	$2,343	$2,069	$(212)	$274

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(1) Consists of the benefit (provision) for credit losses and foreclosed property income (expense).
(2) Gains from partnership investments are included in "Other expenses, net" in our consolidated statements of operations and comprehensive income.
(3) Consists of investment gains (losses), debt extinguishment gains (losses), and other income (expenses).

2016 compared to 2015

Multifamily net income decreased in 2016 compared with 2015 primarily due to lower fee and other income, lower gains from partnership investments, and a decrease in credit-related income. This decrease was partially offset by lower fair value losses and an increase in net interest income.

Net interest income increased primarily due to an increase in guaranty fee income as our multifamily guaranty book of business grew and loans with higher guaranty fees became a larger part of our book, while loans with lower guaranty fees continued to liquidate.

Fee and other income decreased in 2016 compared with 2015 primarily due to a decrease in yield maintenance income.

Credit-related income decreased in 2016 compared with 2015 primarily driven by lower gains on sale of multifamily REO properties.

Fair value losses decreased in 2016 compared with 2015. Fair value losses in 2015 were primarily due to higher losses on trading securities as a result of widening spreads on other mortgage-related securities.

Gains from partnership investments decreased in 2016 compared with 2015 as the number of our multifamily partnership investments continued to decline.

2015 compared to 2014

Multifamily net income increased in 2015 compared with 2014 primarily due to higher net interest income and fee and other income, partially offset by higher fair value losses.

Net interest income increased primarily due to an increase in guaranty fee income as our multifamily guaranty book of business grew and loans with higher guaranty fees became a larger part of our book, while loans with lower guaranty fees continued to liquidate.

Fee and other income increased in 2015 compared with 2014 as a result of an increase in yield maintenance income.

Fair value losses increased in 2015 compared with 2014 driven by higher losses on trading securities in 2015 as a result of widening spreads on other mortgage-related securities.

Multifamily Mortgage Credit Risk Management

The credit risk profile of our multifamily mortgage credit book of business is influenced by the structure of the financing, the type and location of the property, the condition and value of the property, the financial strength of the borrower, market and sub-market trends and growth, and the current and anticipated cash flows from the property. These and other factors affect both the amount of expected credit loss on a given loan and the sensitivity of that loss to changes in the economic environment. We provide information on our multifamily credit-related income and credit losses in "Multifamily Business Financial Results."

We exclude from the multifamily credit statistics reported below the approximately 1% of our multifamily guaranty book of business for which our loan level information is incomplete as of December 31, 2016 and 2015.

Multifamily Acquisition Policy and Underwriting Standards

Our Multifamily business is responsible for pricing and managing the credit risk on multifamily mortgage loans we purchase and on Fannie Mae MBS backed by multifamily loans (whether held in our retained mortgage portfolio or held by third parties), with oversight from our Enterprise Risk Management division. Our primary multifamily delivery channel is the DUS program. Multifamily loans that we purchase or that back Fannie Mae MBS are underwritten by a Fannie Mae-approved lender and may be subject to our underwriting review prior to closing, depending on the product type, loan size, market and/or other factors. Loans delivered to us by DUS lenders and their affiliates represented 97% of our multifamily guaranty book of business as of December 31, 2016 and 2015, compared with 94% as of December 31, 2014.

We use credit enhancement arrangements, primarily lender risk-sharing, for our multifamily loans. Lenders in the DUS program typically share in loan level credit losses in one of two ways: (1) they bear losses up to the first 5% of the unpaid principal balance of the loan and share in remaining losses up to a prescribed limit; or (2) they share up to one-third of the losses on a pro rata basis with us. Non-DUS lenders typically share or absorb losses based on a negotiated percentage of the loan or the pool balance.

As of December 31, 2016, 94% of the unpaid principal balance of loans in our multifamily guaranty book of business had lender risk-sharing, compared with 92% as of December 31, 2015. Our maximum potential loss recovery from lenders under current risk-sharing agreements represented over 20% of the unpaid principal balance of our multifamily guaranty book of business as of December 31, 2016 and 2015. These risk-sharing agreements not only transfer credit risk, but also better align our interests with those of the lenders.

At the time of our purchase or guarantee of multifamily mortgage loans, we and our lenders rely on sound underwriting standards, which generally include property cash flow analysis and third-party appraisals. Our standards for multifamily loans specify maximum original LTV ratio and minimum original debt service coverage ratio ("DSCR") values that vary based on loan characteristics. Our experience has been that original LTV ratio and DSCR values have been reliable indicators of future credit performance. At underwriting, we evaluate the DSCR based on both actual and underwritten debt service payments.

The original DSCR is calculated using the underwritten debt service payments for the loan, rather than the actual debt service payments, which depending on the interest rate of the loan and loan structure may result in a more conservative estimate of the debt service payments.

Table 33 displays original LTV ratio and DSCR metrics for our multifamily guaranty book of business.

Table 33: Multifamily Guaranty Book of Business Key Risk Characteristics

	As of December 31,		
	2016	2015	2014
Weighted average original LTV ratio	67%	66%	66%
Original LTV ratio greater than 80%	2	3	3
Original DSCR less than or equal to 1.10	14	11	8

The percentage of our book of business with an original DSCR less than or equal to 1.10 has increased to 14% as of December 31, 2016, driven by an increase in business volume funded with adjustable-rate mortgages and

with fixed-rate mortgages with different loan structures, which are underwritten at higher interest rates than the actual rates on those loans.

Multifamily Portfolio Diversification and Monitoring

Diversification within our multifamily mortgage credit book of business by geographic concentration, term to maturity, interest rate structure, borrower concentration and loan size, as well as credit enhancement coverage, are important factors that influence credit performance and help reduce our credit risk.

We and our lenders monitor the performance and risk characteristics of our multifamily loans and the underlying properties on an ongoing basis throughout the loan term at the asset and portfolio level. We track credit risk characteristics to determine the loan credit quality indicators, which are the internal risk categories and are further discussed in "Note 3, Mortgage Loans." The credit risk characteristics we use to help determine the internal risk categories include the physical condition of the property, delinquency status, the relevant local market and economic conditions that may signal changing risk or return profiles, and other risk factors. For example, we closely monitor the rental payment trends and vacancy levels in local markets, as well as capitalization rates, to identify loans that merit closer attention or loss mitigation actions. We manage our exposure to refinancing risk for multifamily loans maturing in the next several years. We have a team that proactively manages upcoming loan maturities to minimize losses on maturing loans. This team assists lenders and borrowers with timely and appropriate refinancing of maturing loans with the goal of reducing defaults and foreclosures related to loans maturing in the near term. The primary asset management responsibilities for our multifamily loans are performed by our DUS and other multifamily lenders. We periodically evaluate these lenders' and our other third party service providers' performance for compliance with our asset management criteria.

As part of our ongoing credit risk management process, we require lenders to provide quarterly and annual financial updates for the loans where we are contractually entitled to receive such information. We closely monitor loans with an estimated current DSCR below 1.0, as that is an indicator of heightened default risk. The percentage of loans in our multifamily guaranty book of business, calculated based on unpaid principal balance, with a current DSCR less than 1.0 was approximately 2% as of December 31, 2016 and 2015. Our estimates of current DSCRs are based on the latest available income information for these properties. Although we use the most recently available results from our multifamily borrowers, there is a lag in reporting, which typically can range from 3 to 6 months but in some cases may be longer.

Multifamily Problem Loan Management and Foreclosure Prevention

We periodically refine our underwriting standards in response to market conditions and implement proactive portfolio management and monitoring which are each designed to keep credit losses and delinquencies to a low level relative to our multifamily guaranty book of business. The multifamily serious delinquency rate was 0.05% as of December 31, 2016 and 0.07% as of December 31, 2015. We classify multifamily loans as seriously delinquent when payment is 60 days or more past due.

REO Management

The number of multifamily foreclosed properties held for sale remained low at 13 properties with a carrying value of $85 million as of December 31, 2016 compared with 12 properties with a carrying value of $91 million as of December 31, 2015.

Liquidity and Capital Management

Liquidity Management

Our business activities require that we maintain adequate liquidity to fund our operations. Our liquidity risk management framework is designed to address our liquidity risk. Liquidity risk is the risk that we will not be able to meet our funding obligations in a timely manner. Liquidity risk management involves forecasting funding requirements, maintaining sufficient capacity to meet our needs based on our ongoing assessment of financial market liquidity and adhering to our regulatory requirements.

Primary Sources and Uses of Funds

Our primary source of funds is proceeds from the issuance of short-term and long-term debt securities. Accordingly, our liquidity depends largely on our ability to issue unsecured debt in the capital markets. Our status as a GSE and federal government support of our business continue to be essential to maintaining our access to the unsecured debt markets.

In addition to funding we obtain from the issuance of debt securities, our other sources of cash include:

- principal and interest payments received on mortgage loans, mortgage-related securities and non-mortgage investments we own;
- proceeds from the sale of mortgage-related securities, mortgage loans and non-mortgage assets, including proceeds from the sales of foreclosed real estate assets;
- guaranty fees received on Fannie Mae MBS;
- payments received from mortgage insurance counterparties and other providers of credit enhancement;
- net receipts on derivative instruments;
- receipt of cash collateral; and
- borrowings under a secured intraday funding line of credit and borrowings against mortgage-related securities and other investment securities we hold pursuant to repurchase agreements and loan agreements.

Our primary funding needs include:

- the repayment of matured, redeemed and repurchased debt;
- the purchase of mortgage loans (including delinquent loans from MBS trusts), mortgage-related securities and other investments;
- interest payments on outstanding debt;
- dividend payments made to Treasury on the senior preferred stock;
- net payments on derivative instruments;
- the pledging of collateral under derivative instruments;
- administrative expenses;
- losses incurred in connection with our Fannie Mae MBS guaranty obligations;
- payments of federal income taxes;
- payments to specified HUD and Treasury funds; and
- payments of TCCA fees to Treasury.

Liquidity Risk Management Practices and Contingency Planning

Our liquidity position could be adversely affected by many factors, both internal and external to our business, including: actions taken by FHFA, the Federal Reserve, Treasury or other government agencies; legislation relating to us or our business; a U.S. government payment default on its debt obligations; a downgrade in the credit ratings of our senior unsecured debt or the U.S. government's debt from the major ratings organizations; a systemic event leading to the withdrawal of liquidity from the market; an extreme market-wide widening of credit spreads; public statements by key policy makers; a significant decline in our net worth; potential investor concerns about the adequacy of funding available to us under the senior preferred stock purchase agreement; loss of demand for our debt, or certain types of our debt, from a major group of investors; a significant credit event involving one of our major institutional counterparties; a sudden catastrophic operational failure in the financial sector; or elimination of our GSE status. See "Risk Factors" for a discussion of factors that could adversely affect our liquidity.

We conduct liquidity contingency planning to prepare for an event in which our access to the unsecured debt markets becomes limited. We plan for alternative sources of liquidity that are designed to allow us to meet our cash obligations without relying upon the issuance of unsecured debt for specific periods of time.

Our liquidity management framework and practices require that we maintain:

- a portfolio of highly liquid securities to cover a minimum of 30 calendar days of net cash needs, assuming no access to the short- and long-term unsecured debt markets;
- within our cash and other investments portfolio a daily balance of U.S. Treasury securities and/or cash with the Federal Reserve Bank of New York that has a redemption amount of at least 50% of our average projected 30-day cash needs over the previous three months; and
- a liquidity profile that meets or exceeds our projected 365-day net cash needs with liquidity holdings and unencumbered agency mortgage securities.

As of December 31, 2016, we were in compliance with our liquidity risk management framework and practices set forth above.

We run routine operational testing of our ability to rely upon mortgage and U.S. Treasury collateral to obtain financing. We enter into relatively small repurchase agreements in order to confirm that we have the operational and systems capability to do so. In addition, we have provided collateral in advance to clearing banks in the event we seek to enter into repurchase agreements in the future. We do not, however, have committed repurchase agreements with specific counterparties, as historically we have not relied on this form of funding. As a result, our use of such facilities and our ability to enter into them in significant dollar amounts may be challenging in a stressed market environment. See "Risk Factors" for the risks associated with our ability to fund operations.

See "Cash and Other Investments Portfolio" and "Unencumbered Mortgage Portfolio" for further discussions of our alternative sources of liquidity if our access to the debt markets were to become limited.

While our liquidity contingency planning attempts to address stressed market conditions and our status under conservatorship and Treasury arrangements, we believe that our liquidity contingency plans may be difficult or impossible to execute for a company of our size in our circumstances. See "Risk Factors" for a description of the risks associated with our liquidity contingency planning.

Debt Funding

We separately present the debt from consolidations ("debt of consolidated trusts") and the debt issued by us ("debt of Fannie Mae") in our consolidated balance sheets and in the debt tables below. Our discussion regarding debt funding in this section focuses on the debt of Fannie Mae. We fund our business primarily through the issuance of a variety of short-term and long-term debt securities in the domestic and international capital markets. Because debt issuance is our primary funding source, we are subject to "roll-over," or refinancing, risk on our outstanding debt.

We have a diversified funding base of domestic and international investors. Purchasers of our debt securities are geographically diversified and include fund managers, commercial banks, pension funds, insurance companies, foreign central banks, corporations, state and local governments, and other municipal authorities.

Our debt funding needs and debt funding activity may vary from quarter to quarter depending on market conditions and are influenced by anticipated liquidity needs, the size of our retained mortgage portfolio and our dividend payment obligations to Treasury. See "Retained Mortgage Portfolio" for information about our retained mortgage portfolio and our requirement to reduce the size of our retained mortgage portfolio.

Fannie Mae Debt Funding Activity

Table 34 displays the activity in debt of Fannie Mae. This activity excludes the debt of consolidated trusts and intraday loans. Activity for short-term debt of Fannie Mae relates to borrowings with an original contractual maturity of one year or less while activity for long-term debt of Fannie Mae relates to borrowings with an original contractual maturity of greater than one year. The reported amounts of debt issued and paid off during the period represent the face amount of the debt at issuance and redemption. The increase in our issuances and payoffs of short-term debt during 2016 compared with 2015 and 2014 was driven by our utilization of short-term notes with overnight maturities in 2016. The increase in our issuances of long-term debt during 2016 compared with 2015 and 2014 was primarily driven by the issuance of debt to fund higher redemptions of callable debt due to lower interest rates during the year.

Table 34: Activity in Debt of Fannie Mae

	For the Year Ended December 31,		
	2016	2015	2014
	(Dollars in millions)		
Issued during the period:			
Short-term:			
Amount	$588,082	$182,358	$213,683
Weighted-average interest rate	0.19 %	0.16 %	0.08 %
Long-term:(1)			
Amount	$118,516	$76,268	$45,805
Weighted-average interest rate	1.60 %	1.48 %	1.79 %
Total issued:			
Amount	$706,598	$258,626	$259,488
Weighted-average interest rate	0.42 %	0.55 %	0.38 %
Paid off during the period:(2)			
Short-term:			
Amount	$624,169	$216,340	$180,920
Weighted-average interest rate	0.22 %	0.10 %	0.09 %
Long-term:(1)			
Amount	$142,826	$117,350	$148,186
Weighted-average interest rate	1.97 %	1.39 %	1.80 %
Total paid off:			
Amount	$766,995	$333,690	$329,106
Weighted-average interest rate	0.54 %	0.55 %	0.86 %

(1) Includes credit risk-sharing securities issued under our CAS series. For additional information on our credit risk transfer transactions, see "Business Segments—Single Family Business—Single-Family Mortgage Credit Risk Management—Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions."

(2) Consists of all payments on debt, including regularly scheduled principal payments, payments at maturity, payments resulting from calls and payments for any other repurchases. Repurchases of debt and early retirements of zero-coupon debt are reported at original face value, which does not equal the amount of actual cash payment.

Many factors could affect the amount, mix and cost of our debt funding, reduce demand for our debt securities, increase our liquidity or roll-over risk, or have a material adverse impact on our liquidity, financial condition and results of operations, including:

- changes or perceived changes in federal government support of our business;
- our status as a GSE;
- future changes or disruptions in the financial markets;
- a change or perceived change in the creditworthiness of the U.S. government, due to our reliance on the U.S. government's support; or
- a downgrade in our credit ratings.

We believe that continued federal government support of our business, as well as our status as a GSE, are essential to maintaining our access to debt funding. See "Risk Factors" for a discussion of the risks we face relating to: (1) the uncertain future of our company; (2) our reliance on the issuance of debt securities to obtain funds for our operations and the relative cost to obtain these funds; (3) our liquidity contingency plans; and (4) our credit ratings. Also see "Business—Legislation and Regulation—Housing Finance Reform" for a description of recent actions and statements relating to housing finance reform by the current Administration, Congress and FHFA.

Intraday Line of Credit
We use a secured intraday funding line of credit provided by a large financial institution. We post collateral which, in some circumstances, the secured party has the right to repledge to third parties. As this line of credit is an uncommitted intraday loan facility, we may be unable to draw on it if and when needed. The line of credit under this facility was $15.0 billion as of December 31, 2016 and 2015. We had no borrowings outstanding under this line of credit as of December 31, 2016.
Outstanding Debt
Total outstanding debt of Fannie Mae includes short-term and long-term debt, excluding debt of consolidated trusts. Short-term debt of Fannie Mae consists of borrowings with an original contractual maturity of one year or less and, therefore, does not include the current portion of long-term debt. Long-term debt of Fannie Mae consists of borrowings with an original contractual maturity of greater than one year.
Our outstanding short-term debt, based on its original contractual maturity, as a percentage of our total outstanding debt was 11% as of December 31, 2016 compared with 18% as of December 31, 2015. The weighted-average interest rate on our long-term debt, based on its original contractual maturity, decreased to 2.31% as of December 31, 2016 from 2.41% as of December 31, 2015.
Our outstanding debt maturing within one year, including the current portion of our long-term debt and amounts we have announced for early redemption, as a percentage of our total outstanding debt, excluding debt of consolidated trusts, was 32% as of December 31, 2016 and 2015. The weighted-average maturity of our outstanding debt that is maturing within one year was 146 days as of December 31, 2016, compared with 125 days as of December 31, 2015. The weighted-average maturity of our outstanding debt maturing in more than one year was approximately 56 months as of December 31, 2016 and approximately 57 months as of December 31, 2015. For information on the maturity profile of our outstanding long-term debt for each of the years 2017 through 2021 and thereafter, see "Note 8, Short-Term Borrowings and Long-Term Debt."
We intend to repay our short-term and long-term debt obligations as they become due primarily through proceeds from the issuance of additional debt securities. We also may use proceeds from our mortgage assets to pay our debt obligations.
Pursuant to the terms of the senior preferred stock purchase agreement, we are prohibited from issuing debt without the prior consent of Treasury if it would result in our aggregate indebtedness exceeding our outstanding debt limit, which is 120% of the amount of mortgage assets we were allowed to own under the senior preferred stock purchase agreement on December 31 of the immediately preceding calendar year. Our debt limit under the senior preferred stock purchase agreement was reduced to $479.0 billion in 2016. As of December 31, 2016, our aggregate indebtedness totaled $328.8 billion, which was $150.2 billion below our debt limit. Our debt limit in 2017 is $407.2 billion. The calculation of our indebtedness for purposes of complying with our debt limit reflects the unpaid principal balance and excludes debt basis adjustments and debt of consolidated trusts. Because of our debt limit, we may be restricted in the amount of debt we issue to fund our operations.

MD&A | Liquidity and Capital Management

Table 35 displays information on our outstanding short-term and long-term debt based on its original contractual terms. The amount of our outstanding short-term debt and outstanding long-term debt of Fannie Mae decreased in 2016 compared with 2015 primarily due to lower funding needs as our retained mortgage portfolio decreased.

Table 35: Outstanding Short-Term Borrowings and Long-Term Debt[1]

	As of December 31,					
	2016			2015		
	Maturities	Outstanding	Weighted-Average Interest Rate	Maturities	Outstanding	Weighted-Average Interest Rate
	(Dollars in millions)					
Federal funds purchased and securities sold under agreements to repurchase[2]	—	$—	— %	—	$62	— %
Short-term debt:						
Debt of Fannie Mae	—	$34,995	0.49 %	—	$71,007	0.26 %
Debt of consolidated trusts	—	584	0.48	—	943	0.19
Total short-term debt		$35,579	0.49 %		$71,950	0.26 %
Long-term debt:						
Senior fixed:						
Benchmark notes and bonds	2017 - 2030	$153,983	2.16 %	2016 - 2030	$154,057	2.49 %
Medium-term notes[3]	2017 - 2026	82,230	1.40	2016 - 2025	96,997	1.53
Other[4]	2017 - 2038	12,800	6.74	2016 - 2038	27,772	4.88
Total senior fixed		249,013	2.14		278,826	2.39
Senior floating:						
Medium-term notes[3]	2017 - 2019	21,476	0.71	2016 - 2019	20,791	0.27
Connecticut Avenue Securities[5]	2023 - 2029	16,511	4.77	2023 - 2028	10,764	3.84
Other[6]	2020 - 2037	346	6.75	2020 - 2037	368	10.46
Total senior floating		38,333	2.48		31,923	1.58
Subordinated debentures	2019	4,645	9.93	2019	4,227	9.93
Secured borrowings[7]	2021 - 2022	111	1.44	2021 - 2022	152	1.47
Total long-term debt of Fannie Mae		292,102	2.31		315,128	2.41
Debt of consolidated trusts	2017 - 2056	2,934,635	2.57	2016 - 2054	2,810,593	2.94
Total long-term debt		$3,226,737	2.54 %		$3,125,721	2.88 %
Outstanding callable debt of Fannie Mae[8]		$77,257	1.89 %		$96,199	1.92 %

(1) Outstanding debt amounts and weighted-average interest rates reported in this table include the effects of discounts, premiums and other cost basis adjustments. Reported outstanding amounts include fair value gains and

losses associated with debt that we elected to carry at fair value. Reported amounts for total debt of Fannie Mae include unamortized discounts and premiums, other cost basis adjustments and fair value adjustments of $1.8 billion and $3.2 billion as of December 31, 2016 and 2015, respectively.

(2) Represents agreements to repurchase securities for a specified price, with repayment generally occurring on the following day.

(3) Includes long-term debt with an original contractual maturity of greater than 1 year and up to 10 years, excluding zero-coupon debt.

(4) Includes other long-term debt with an original contractual maturity of greater than 10 years and foreign exchange bonds.

(5) Credit risk-sharing securities that transfer a portion of the credit risk on specified pools of mortgage loans in our single-family guaranty book of business to the investors in these securities, a portion of which is reported at fair value. For additional information on our credit risk transfer transactions, see "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions."

MD&A | Liquidity and Capital Management

(6) Consists of structured debt instruments that are reported at fair value.

(7) Represents remaining liability resulting from the transfer of financial assets from our consolidated balance sheets that did not qualify as a sale.

(8) Consists of the unpaid principal balance of long-term callable debt of Fannie Mae that can be paid off in whole or in part at our option at any time on or after a specified date.

Table 36 below displays additional information for each category of our short-term borrowings.

Table 36: Outstanding Short-Term Borrowings[1]

	2016				
	As of December 31		Average During the Year		
	Outstanding	Weighted-Average Interest Rate	Outstanding[2]	Weighted-Average Interest Rate	Maximum Outstanding[3]
	(Dollars in millions)				
Federal funds purchased and securities sold under agreements to repurchase	$—	—%	$209	—%	$2,090
Total short-term debt of Fannie Mae	34,995	0.49	51,061	0.37	67,444

	2015				
	As of December 31		Average During the Year		
	Outstanding	Weighted-Average Interest Rate	Outstanding[2]	Weighted-Average Interest Rate	Maximum Outstanding[3]
	(Dollars in millions)				
Federal funds purchased and securities sold under agreements to repurchase	$62	—%	$42	—%	$271
Total short-term debt of Fannie Mae	71,007	0.26	88,842	0.17	107,690

	2014				
	As of December 31		Average During the Year		
	Outstanding	Weighted-Average Interest Rate	Outstanding[2]	Weighted-Average Interest Rate	Maximum Outstanding[3]
	(Dollars in millions)				
Federal funds purchased and securities sold under agreements to repurchase	$50	—%	$28	—%	$273
Total short-term debt of Fannie Mae	105,012	0.12	86,839	0.11	114,741

(1) Includes the effects of discounts, premiums and other cost basis adjustments.

(2) Average amount outstanding has been calculated using daily balances.

(3) Maximum outstanding represents the highest daily outstanding balance during the year.

Contractual Obligations

Table 37 displays, by remaining maturity, our future cash obligations related to our long term debt, announced calls, operating leases, purchase obligations and other material non-cancelable contractual obligations.

Table 37: Contractual Obligations

	Payment Due by Period as of December 31, 2016				
	Total	Less than 1 Year	1 to < 3 Years	3 to 5 Years	More than 5 Years
	(Dollars in millions)				
Long-term debt obligations[1]	$292,102	$68,016	$119,034	$54,159	$50,893
Contractual interest on long-term obligations[2]	38,445	5,341	8,643	6,271	18,190
Operating lease obligations[3]	887	47	76	99	665
Purchase obligations:					
Mortgage commitments[4]	67,100	67,100	—	—	—
Other purchase obligations[5]	153	88	54	11	—
Other liabilities reflected in the consolidated balance sheet[6]	602	578	11	13	—
Total contractual obligations	$399,289	$141,170	$127,818	$60,553	$69,748

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(1) Represents the carrying amount of our long-term debt assuming payments are made in full at maturity. Amounts exclude $2.9 trillion in long-term debt of consolidated trusts. Amounts include a net unamortized discount, fair value adjustments and other cost basis adjustments of $1.8 billion.

(2) Excludes contractual interest on long-term debt from consolidations.

(3) Includes amounts related to office buildings and equipment leases.

(4) Includes on- and off-balance sheet commitments to purchase mortgage loans and mortgage-related securities.

(5) Includes unconditional purchase obligations that are subject to a cancellation penalty for certain telecommunications services, software and computer services, and other agreements. Excludes arrangements that may be canceled without penalty.

(6) Excludes risk management derivative transactions that may require cash settlement in future periods and our obligations to stand ready to perform under our guarantees relating to Fannie Mae MBS and other financial guarantees, because the amount and timing of payments under these arrangements are generally contingent upon the occurrence of future events. For a description of the amount of our on- and off-balance sheet Fannie Mae MBS and other financial guarantees as of December 31, 2016, see "Mortgage Credit Book of Business" and "Off-Balance Sheet Arrangements." Includes cash received as collateral and future cash payments due under our contractual obligations to fund low-income housing tax credit partnership investments and other partnerships that are unconditional and legally binding, which are included in our consolidated balance sheets under "Other liabilities."

Equity Funding

As a result of the covenants under the senior preferred stock purchase agreement, Treasury's ownership of the warrant to purchase up to 79.9% of the total shares of our common stock outstanding and the uncertainty regarding our future, we effectively no longer have access to equity funding except through draws under the senior preferred stock purchase agreement. For a description of the funding available and the covenants under the senior preferred stock purchase agreement, see "Business—Conservatorship and Treasury Agreements—Treasury Agreements."

Cash and Other Investments Portfolio

Table 38 displays information on the composition of our cash and other investments portfolio. The balance of our cash and other investments portfolio fluctuates based on changes in our cash flows, liquidity in the fixed income markets and our liquidity risk management framework and practices. See "Risk Management—Credit Risk Management—Institutional Counterparty Credit Risk Management—Counterparty Credit Exposure of Investments Held in our Cash and Other Investments Portfolio” for additional information on the risks associated with the assets in our cash and other investments portfolio.

Table 38: Cash and Other Investments Portfolio

	As of December 31,		
	2016	2015	2014
	(Dollars in millions)		
Cash and cash equivalents	$25,224	$14,674	$22,023
Federal funds sold and securities purchased under agreements to resell or similar arrangements	30,415	27,350	30,950
U.S. Treasury securities	32,317	29,485	19,466
Total cash and other investments	$87,956	$71,509	$72,439

Unencumbered Mortgage Portfolio

Another potential source of liquidity in the event our access to the unsecured debt market becomes impaired is the unencumbered mortgage assets in our retained mortgage portfolio, which could be sold or used as collateral for secured borrowing. We believe that the amount of mortgage-related assets that we could successfully sell or borrow against in the event of a liquidity crisis or significant market disruption is substantially lower than the amount of mortgage-related assets we hold. Our ability to sell whole loans from our retained mortgage portfolio is limited due to the credit-related issues of many of these loans, as well as operational constraints. See “Risk Factors” for a discussion of the limitations on our ability to successfully sell or borrow against the unencumbered mortgage assets in our retained mortgage portfolio in the event of a liquidity crisis.

Credit Ratings

Our credit ratings from the major credit ratings organizations, as well as the credit ratings of the U.S. government, are primary factors that could affect our ability to access the capital markets and our cost of funds. In addition, our credit ratings are important when we seek to engage in certain long-term transactions, such as derivative transactions. S&P, Moody’s and Fitch have all indicated that, if they were to lower the sovereign credit ratings on the U.S., they would likely lower their ratings on the debt of Fannie Mae and certain other government-related entities. We cannot predict whether one or more of these ratings agencies will lower our debt ratings in the future. See “Risk Factors” for a discussion of the risks to our business relating to a decrease in our credit ratings, which could include an increase in our borrowing costs, limits on our ability to issue debt, and additional collateral requirements under our derivatives contracts.

Table 39 displays the credit ratings issued by the three major credit rating agencies.

Table 39: Fannie Mae Credit Ratings

	December 31, 2016		
	S&P	Moody’s	Fitch
Long-term senior debt	AA+	Aaa	AAA
Short-term senior debt	A-1+	P-1	F1+
Subordinated debt	AA-	Aa2	AA-
Preferred stock	D	Ca	C/RR6
Outlook	Stable (for Long-Term Senior Debt and Subordinated Debt)	Stable (for Long-Term Senior Debt and Preferred Stock)	Stable (for AAA rated Long-Term Issuer Default Ratings)

We have no covenants in our existing debt agreements that would be violated by a downgrade in our credit ratings. However, in connection with certain derivatives counterparties, we could be required to provide additional collateral to or terminate transactions with certain counterparties in the event that our senior unsecured debt ratings are downgraded. The amount of additional collateral required depends on the contract and is usually a fixed incremental amount, the market value of the exposure, or both. See “Note 9, Derivative Instruments” and “Risk Factors” for additional information on collateral we would be required to provide to our derivatives counterparties in the event of downgrades in our credit ratings.

Cash Flows

Year Ended December 31, 2016. Cash and cash equivalents increased by $10.6 billion from $14.7 billion as of December 31, 2015 to $25.2 billion as of December 31, 2016. The increase was primarily driven by cash inflows from (1) the sale of Fannie Mae MBS to third parties and (2) proceeds from repayments and sales of loans of Fannie Mae. Partially offsetting these cash inflows were cash outflows from (1) the redemption of funding debt, which outpaced issuances due to lower funding needs and (2) the acquisition of delinquent loans out of MBS trusts.

Year Ended December 31, 2015. Cash and cash equivalents decreased by $7.3 billion from $22.0 billion as of December 31, 2014 to $14.7 billion as of December 31, 2015. The decrease was primarily driven by cash outflows from (1) the redemption of funding debt, which outpaced issuances due to lower funding needs, (2) the acquisition of delinquent loans out of MBS trusts and (3) the payment of dividends to Treasury under our senior preferred stock purchase agreement.

Partially offsetting these cash outflows were cash inflows from (1) the sale of Fannie Mae MBS to third parties, (2) proceeds from repayments and sales of loans of Fannie Mae, (3) the sale of our acquired property and (4) proceeds from the sale and liquidation of mortgage-related securities.

Capital Management

Regulatory Capital

FHFA stated that, during conservatorship, our existing statutory and FHFA-directed regulatory capital requirements will not be binding and that FHFA will not issue quarterly capital classifications. We report GAAP net worth and the deficit of our core capital over statutory minimum capital in our periodic reports on Form 10-Q and Form 10-K. For information on our minimum capital requirements see “Note 14, Regulatory Capital Requirements.”

Capital Activity

The Director of FHFA has directed us to make dividend payments on the senior preferred stock on a quarterly basis. Our fourth quarter 2016 dividend of $3.0 billion was declared by FHFA and subsequently paid by us on December 30, 2016, bringing our senior preferred stock dividends paid in 2016 to $9.6 billion. Based on the terms of the senior preferred stock, we expect to pay Treasury a dividend for the first quarter of 2017 of $5.5 billion by March 31, 2017. The terms of our senior preferred stock provide for dividends to accrue at a rate equal to our net worth less an applicable capital reserve amount, which continues to decrease annually. The capital reserve amount was $1.2 billion for dividend periods in 2016, decreased to $600 million for dividend periods in 2017, and will decrease to zero on January 1, 2018. As a result of the “net worth sweep” dividend we pay to Treasury each quarter, we cannot retain capital from the earnings generated by our business operations.

We are effectively unable to raise equity capital from private sources at this time and, therefore, are reliant on the funding available under our senior preferred stock purchase agreement with Treasury to address any net worth deficit. Under the senior preferred stock purchase agreement, Treasury made a commitment to provide funding, under certain conditions, to eliminate deficiencies in our net worth. As of the date of this filing, the amount of remaining available funding under our senior preferred stock purchase agreement is $117.6 billion. If we were to draw additional funds from Treasury under the agreement in a future period, the amount of remaining funding under the agreement would be reduced by the amount of our draw. Dividend payments we make to Treasury do not restore or increase the amount of funding available to us from Treasury under the agreement. See “Business—Conservatorship and Treasury Agreements—Treasury Agreements” for more information on the terms of our senior preferred stock and our senior preferred stock purchase agreement with Treasury. See “Risk Factors” for a discussion of the risks relating to our limited and declining capital reserves and our dividend obligations to Treasury on our senior preferred stock.

Off-Balance Sheet Arrangements

We enter into certain business arrangements to facilitate our statutory purpose of providing liquidity to the secondary mortgage market and to reduce our exposure to interest rate fluctuations. Some of these arrangements are not recorded in our consolidated balance sheets or may be recorded in amounts different from the full contract or notional amount of the transaction, depending on the nature or structure of, and accounting required to be applied to, the arrangement. These arrangements are commonly referred to as “off-balance sheet arrangements” and expose us to potential losses in excess of the amounts recorded in our consolidated balance sheets.

Our off-balance sheet arrangements result primarily from the following:

- our guaranty of mortgage loan securitization and resecuritization transactions, and other guaranty commitments over which we do not have control;
- liquidity support transactions; and
- partnership interests.

Our maximum potential exposure to credit losses relating to our outstanding and unconsolidated Fannie Mae MBS and other financial guarantees is primarily represented by the unpaid principal balance of the mortgage loans underlying outstanding and unconsolidated Fannie Mae MBS and other financial guarantees of $24.3 billion as of December 31, 2016 and $27.5 billion as of December 31, 2015.

Our total outstanding liquidity commitments to advance funds for securities backed by multifamily housing revenue bonds totaled $10.4 billion as of December 31, 2016 and $11.4 billion as of December 31, 2015. These commitments require us to advance funds to third parties that enable them to repurchase tendered bonds or securities that are unable to be remarketed. We hold cash and cash equivalents in our cash and other investments portfolio in excess of these commitments to advance funds.

We have historically made investments in various limited partnerships and similar legal entities, which consist of low-income housing tax credit investments, community investments and other entities. When we are not the primary beneficiary, our consolidated balance sheets reflect only our investment rather than the full amount of the partnership’s assets and liabilities.

Risk Management

Our business activities expose us to the following three major categories of risk: credit risk, market risk (including interest rate and liquidity risk), and operational risk. We are also exposed to strategic risk, compliance risk and reputational risk. We seek to actively manage and monitor these risks by using an established risk management program. Our risk management program provides the basis for the principles that govern our risk management activities.

- Credit Risk. Credit risk is the risk of loss resulting from the failure of a borrower or institutional counterparty to honor its financial or contractual obligations, resulting in a potential loss of earnings. In regards to financial securities or instruments, credit risk is the risk of not receiving principal, interest or any other financial obligation on a timely basis, for any reason. Our credit risk exposure exists primarily in connection with our mortgage credit book of business and our institutional counterparties.
- Market Risk. Market risk is the risk of loss resulting from adverse changes in the value of financial instruments caused by changes in market conditions. Two significant market risks we face and actively manage are interest rate risk and liquidity risk. Interest rate risk is the risk of loss from adverse changes in the value of our assets or liabilities or our future earnings due to changes in interest rates. Liquidity risk is the risk that we will not be able to meet our funding obligations in a timely manner.
- Operational Risk. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events.

- Strategic Risk. Strategic risk is the risk of loss resulting from an unsuccessful business plan or strategy. This risk also encompasses the uncertainty regarding the future of our company, including how long we will continue to be in existence, which we discuss in “Business” and “Risk Factors.”

- Compliance Risk. Compliance risk is the risk associated with not complying with the laws, regulations, supervisory guidance, obligations or ethical standards governing how we operate. This risk exposes us to adverse actions by regulators, law enforcement or other government agencies, or private civil action, damaged reputation, and financial losses incurred through fines, legal judgments or civil penalties.
- Reputational Risk. Reputational risk is the risk to our financial condition, brand value or resilience arising from negative public opinion.

For a description of additional risks facing our business that could materially adversely affect our business, results of operations, financial condition, liquidity and net worth, see "Risk Factors."

Our risk management program is comprised of five inter-related components that are designed to work together as a comprehensive risk management system aimed at enhancing our performance.

- Risk Governance and Culture. We set and carry out our strategy and business objectives in accordance with our vision and values. These values promote a culture through which we define how we want to conduct business and how we work to achieve our business objectives. Through our risk governance structure, we define and establish authority, responsibility and accountability for risk management. Risks are managed through the execution of control activities that include delegations of authority, risk committees, risk policies, risk appetite and limits or thresholds, which are designed to act in collaboration with each other.
- Risk, Strategy and Objective Setting. Enterprise risk management is integrated with our strategy and business objectives. This integration provides insight into the risk profile associated with the strategy and its execution.
- Risk in Execution. We identify and assess risks generated through the pursuit of our strategy and business objectives. Because risk originates from various sources, the process of identifying, assessing and responding to risks is performed across the company.
- Risk Information, Communication and Reporting. Risk reporting is the process of identifying, capturing and communicating relevant information in a form and timeframe that enables stakeholders to carry out their responsibilities, including the execution of sound and informed risk management decisions.
- Monitoring Enterprise Risk Management Performance. We monitor, evaluate and update our enterprise risk management program based on internal or external changes to our business. We also continually monitor our risk management performance to identify improvement opportunities for enterprise risk management components at all levels of the company.

We manage risk by using the industry standard "three lines of defense" structure, which distinguishes between functions that:

- generate, own and manage risks—the first line of defense;
- oversee risks—the second line of defense; and
- provide independent assurance—the third line of defense.

In this structure, each line of defense performs an important function within the integrated risk management program.

- First line of defense. The first line of defense is responsible for the identification, assessment, mitigation and control, and monitoring and reporting of risks arising from the operations or activities and systems for which they are accountable. The first line of defense is also responsible for conforming to the risk appetite, policies, standards, and limits or thresholds approved by FHFA, the Board and the relevant management-level risk committee.
- Second line of defense. The second line of defense is comprised of those groups responsible for independent oversight and monitoring of risk management. It includes Enterprise Risk Management and Compliance and Ethics. The second line of defense is also comprised of independent support functions, including Finance (which also includes SOX and the Enterprise Project Management Office), Legal, Human Resources and Communications, which provide specialized services to the business units.
- Third line of defense. The third line of defense is Internal Audit. Internal Audit is an independent, objective assurance and advisory activity designed to promote the achievement of organizational objectives by providing an independent evaluation of the effectiveness of the system of internal controls employed by management to achieve those objectives.

The Board of Directors and management-level risk committees are also integral to our risk management program.

- Board of Directors. Our Board of Directors has established and maintains oversight of our enterprise-wide risk management program in accordance with FHFA regulations. The regulations specify that our enterprise-wide risk management program must include certain risk limitations, appropriate policies and procedures, provisions for monitoring compliance, as well as effective and timely implementation of corrective actions. The Risk Policy & Capital Committee of the Board, pursuant to its Charter and FHFA regulations, assists the Board in overseeing our management of risk and recommends for Board approval enterprise risk governance policy and limits. In addition, the Audit Committee reviews the system of internal controls that we rely upon to provide reasonable assurance of compliance with our enterprise risk management processes. The Board of Directors delegates certain authorities to the Chief Executive Officer and management-level risk committees. Certain activities require the approval of our conservator. See "Directors, Executive Officers and Corporate Governance—Corporate Governance" for information about the Board's risk management responsibilities and activities that require the approval of our conservator.
- Management-Level Risk Committees. Management-level risk committees include members of management from the first and second line of defense functions. These committees support governance through policy approval and the establishment of risk parameters within which the business must operate. They provide a forum for discussing and documenting risks and risk mitigation, and communicating across functional lines to enhance risk management. The committees are also used to escalate risk decisions that are not in the ordinary course of business or that may result in new or unusual risk exposure. Our primary management-level risk committees are the Enterprise Risk Committee, the Asset and Liability Committee, the Capital Committee, the Single-Family Risk Committee, the Multifamily Risk Committee, the Operational Risk Committee, the Third Party Risk Committee and the Model Risk Oversight Committee.

Credit Risk Management

We are generally subject to two types of credit risk: mortgage credit risk and institutional counterparty credit risk. The metrics used to measure credit risk are generated using internal models. Our internal models require numerous assumptions and there are inherent limitations in any methodology used to estimate macroeconomic factors such as home prices, unemployment and interest rates, and their impact on borrower behavior. When market conditions change rapidly and dramatically, the assumptions of our models may no longer accurately capture or reflect the changing conditions. Management periodically makes judgments about the appropriateness of the risk assessments indicated by the models. See "Risk Factors" for a discussion of the risks associated with our use of models.

Mortgage Credit Risk Management

Mortgage credit risk is the risk of loss resulting from the failure of a borrower to make required mortgage payments. We are exposed to credit risk on our mortgage credit book of business because we either hold mortgage assets, have issued a guaranty in connection with the creation of Fannie Mae MBS backed by mortgage assets or provided other credit enhancements on mortgage assets. For a discussion of our single-family mortgage credit risk management, see "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management." For a discussion of our multifamily credit risk management, see "Business Segments—Multifamily Business—Multifamily Mortgage Credit Risk Management."

Institutional Counterparty Credit Risk Management

We rely on our institutional counterparties to provide services and credit enhancements that are critical to our business. Institutional counterparty credit risk is the risk of loss resulting from the failure of an institutional counterparty to fulfill its contractual obligations to us. Defaults by a counterparty with significant obligations to us could result in significant financial losses to us.

We have exposure primarily to the following types of institutional counterparties:

- mortgage sellers and/or servicers that service the loans we hold in our retained mortgage portfolio or that back our Fannie Mae MBS and that are obligated to repurchase loans from us or reimburse us for losses in certain circumstances;
- credit guarantors that provide credit enhancements on the mortgage assets that we hold in our retained mortgage portfolio or that back our Fannie Mae MBS, including mortgage insurers, financial guarantors, credit insurance risk transfer counterparties and multifamily lenders with risk sharing arrangements;

- custodial depository institutions that hold principal and interest payments for loans in our retained mortgage portfolio and for MBS certificateholders, as well as collateral posted by derivatives counterparties, mortgage sellers and mortgage servicers;
- the financial institutions that issue the investments held in our cash and other investments portfolio;
- derivatives counterparties;
- mortgage originators, investors and dealers;
- debt security dealers; and
- document custodians.

We routinely enter into a high volume of transactions with counterparties in the financial services industry, including brokers and dealers, mortgage lenders and commercial banks, and mortgage insurers, resulting in a significant credit concentration with respect to this industry. We also have significant concentrations of credit risk with particular counterparties. Many of our institutional counterparties provide several types of services for us. For example, many of our lender customers or their affiliates act as mortgage sellers, mortgage servicers, derivatives counterparties, custodial depository institutions or document custodians on our behalf.

In the event of a bankruptcy or receivership of one of our counterparties, we may be required to establish our ownership rights to the assets these counterparties hold on our behalf to the satisfaction of the bankruptcy court or receiver, which could result in a delay in accessing these assets causing a decline in their value. In addition, if we are unable to replace a defaulting counterparty that performs services that are critical to our business with another counterparty, it could adversely affect our ability to conduct our operations. See "Risk Factors" for further discussion of the risks to our business posed by our counterparties' failure to fulfill their obligations to us.

Mortgage Sellers and Servicers

One of our primary exposures to institutional counterparty risk is with mortgage servicers that service the loans we hold in our retained mortgage portfolio or that back our Fannie Mae MBS, as well as mortgage sellers and servicers that are obligated to repurchase loans from us or reimburse us for losses in certain circumstances.

Mortgage servicers collect mortgage and escrow payments from borrowers, pay taxes and insurance costs from escrow accounts, monitor and report delinquencies, and perform other required activities on our behalf. We have minimum standards and financial requirements for mortgage servicers. We perform periodic on-site and financial reviews of our largest mortgage servicers and monitor their financial and portfolio performance as compared to peers and internal benchmarks. We work with our largest mortgage servicers to establish performance goals and monitor performance against the goals, and our servicing consultants work with mortgage servicers to improve servicing results and compliance with our Servicing Guide.

We likely would incur costs and potential increases in servicing fees and could also face operational risks if we replace a mortgage servicer. If a mortgage servicer defaults, it could result in a temporary disruption in servicing and loss mitigation activities relating to the loans serviced by that mortgage servicer, particularly if there is a loss of experienced servicing personnel. We may also face challenges in transferring a large servicing portfolio.

Our five largest single-family mortgage servicers, including their affiliates, serviced approximately 39% of our single-family guaranty book of business as of December 31, 2016, compared with approximately 44% as of December 31, 2015. Our largest mortgage servicer is Wells Fargo Bank, N.A., which, together with its affiliates, serviced approximately 17% of our single-family guaranty book of business as of December 31, 2016 and 2015. As of December 31, 2015, one additional mortgage servicer, JPMorgan Chase, N.A., with its affiliates, serviced over 10% of our single-family guaranty book of business.

Our five largest multifamily mortgage servicers, including their affiliates, serviced approximately 47% of our multifamily guaranty book of business as of December 31, 2016, compared with approximately 45% as of December 31, 2015. Wells Fargo Bank, N.A. and Walker & Dunlop, LLC each serviced over 10% of our multifamily guaranty book of business as of December 31, 2016 and 2015.

A large portion of our single-family guaranty book is serviced by non-depository servicers. As of December 31, 2016, 16% of our total single-family guaranty book of business, including 51% of our delinquent single-family loans, was serviced by our five largest non-depository servicers, compared with 19% of our total single-family guaranty book of business, including 60% of our delinquent single-family loans, as of December 31, 2015. Compared with depository financial institutions, non-depository servicers pose additional risks to us because non-depository servicers may have a greater reliance on third-party sources of liquidity and may, in the event of significant increases in delinquent loan volumes, have less financial capacity to advance funds on our behalf or satisfy repurchase requests or compensatory fee obligations. In addition, regulatory bodies have been reviewing the activities of some of our largest non-depository servicers. See "Risk Factors" for a discussion of the risks of our reliance on servicers.

Because we delegate the servicing of our mortgage loans to mortgage servicers and do not have our own servicing function, mortgage servicers' lack of appropriate process controls or the loss of business from a significant mortgage servicer counterparty could pose significant risks to our ability to conduct our business effectively. Many mortgage servicers are also subject to federal and state regulatory actions and legal settlements that require the mortgage servicers to correct process deficiencies and improve their servicing practices. This has contributed to extended foreclosure timelines and, therefore, additional holding costs for us, such as property taxes, insurance, repairs and maintenance.

Our five largest single-family mortgage sellers, including their affiliates, accounted for approximately 30% of our single-family business acquisition volume in 2016, compared with approximately 29% in 2015. Our largest mortgage seller is Wells Fargo Bank, N.A., which, together with its affiliates, accounted for approximately 14% of our single-family business acquisition volume in 2016, compared with approximately 13% in 2015.

We acquire a portion of our business volume directly from non-depository and smaller depository financial institutions that may not have the same financial strength or operational capacity as our largest mortgage seller counterparties. We could be required to absorb losses on defaulted loans that a failed mortgage seller is obligated to repurchase from us if we determine there was an underwriting eligibility breach.

Risk management steps we have taken or may take to mitigate our risk to mortgage sellers and servicers with which we have significant counterparty exposure include guaranty of obligations by higher-rated entities, reduction or elimination of exposures, reduction or elimination of certain business activities, transfer of exposures to third parties, receipt of collateral and suspension or termination of the selling and servicing relationship.

We are exposed to the risk that a mortgage seller and servicer or another party involved in a mortgage loan transaction will engage in mortgage fraud by misrepresenting the facts about the loan. We have experienced significant financial losses in the past and may experience significant financial losses and reputational damage in the future as a result of mortgage fraud. See "Risk Factors" for a discussion of the risks to our business as a result of mortgage fraud.

Mortgage sellers and servicers may not meet the terms of their repurchase obligations, and we may be unable to recover on all outstanding loan repurchase obligations resulting from their breaches of contractual obligations. Failure by a significant mortgage seller or servicer, or a number of mortgage sellers or servicers, to fulfill repurchase obligations to us could result in an increase in our credit losses and credit-related expense, and have an adverse effect on our results of operations and financial condition. In addition, actions we take to pursue our contractual remedies could increase our costs, reduce our revenues, or otherwise have an adverse effect on our results of operations or financial condition. See "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Acquisition and Servicing Policies and Underwriting and Servicing Standards—Repurchase Requests," for additional information regarding repurchase requests and the balance of our outstanding repurchase requests as of December 31, 2016.

Credit Guarantors

We use various types of credit guarantors to manage our mortgage credit risk, including mortgage insurers, credit insurance risk transfer counterparties, financial guarantors, and multifamily lenders with risk sharing.

Mortgage Insurers

We are generally required, pursuant to our charter, to obtain credit enhancements on single-family conventional mortgage loans that we purchase or securitize with LTV ratios over 80% at the time of purchase. We use several types of credit enhancements to manage our single-family mortgage credit risk, including primary and pool mortgage insurance coverage. Table 40 displays our risk in force for mortgage insurance coverage on single-family loans in our guaranty book of business and our insurance in force for our mortgage insurer counterparties, excluding insurance coverage provided by federal government entities and credit insurance obtained through CIRT deals. The table includes our top ten mortgage insurer counterparties, which provided over 99% of our total mortgage insurance coverage on single-family loans in our guaranty book of business as of December 31, 2016

and 2015. In addition, for our mortgage insurer counterparties not approved to write new business, we have provided the percentage of their claims payments the counterparties are currently deferring based on the direction of their state regulators, referred to as their deferred payment obligation. As of December 31, 2016 and 2015, under 1% of our total risk in force mortgage insurance coverage was pool insurance. In addition, approximately 1% and 2% of our total insurance in force mortgage insurance coverage was pool insurance as of December 31, 2016 and 2015.

Table 40: Mortgage Insurance Coverage

	As of December 31,				Deferred Payment Obligation %[3]
	2016	2015	2016	2015	
	Risk in Force[1]		Insurance in Force[2]		
	(Dollars in millions)				
Counterparty:[4]					
Approved:[5]					
Arch Capital Group Ltd.:[6]					
United Guaranty Residential Insurance Co.	$27,161	$27,396	$104,418	$105,627	
Arch Mortgage Insurance Co.	6,059	3,697	23,998	14,822	
Total Arch Capital Group Ltd.	33,220	31,093	128,416	120,449	
Radian Guaranty, Inc.	25,866	25,191	100,626	98,274	
Mortgage Guaranty Insurance Corp.	24,662	23,850	95,431	92,026	
Genworth Mortgage Insurance Corp.	18,573	16,700	73,075	65,735	
Essent Guaranty, Inc.	11,213	8,787	45,053	35,673	
National Mortgage Insurance Corp.	4,388	1,989	21,209	11,997	
Others	282	233	1,724	1,409	
Total approved	118,204	107,843	465,534	425,563	
Not approved:[5]					
PMI Mortgage Insurance Co.[7]	3,790	4,805	15,112	19,212	28.5 %
Republic Mortgage Insurance Co.[7]	3,104	3,921	12,043	15,450	—
Triad Guaranty Insurance Corp.[7]	1,106	1,348	3,975	4,864	25.0 %
Others	11	14	34	44	
Total not approved	8,011	10,088	31,164	39,570	
Total	$126,215	$117,931	$496,698	$465,133	
Total as a percentage of single-family guaranty book of business	4 %	4 %	17 %	16 %	

(1) Risk in force is generally the maximum potential loss recovery under the applicable mortgage insurance policies in force and is based on the loan level insurance coverage percentage and, if applicable, any aggregate pool loss limit, as specified in the policy.

(2) Insurance in force represents the unpaid principal balance of single-family loans in our guaranty book of business covered under the applicable mortgage insurance policies.

(3) Deferred payment obligation represents the percentage of cash payments on policyholder claims being deferred as directed by the insurer's respective regulator in the state of domicile as of December 31, 2016.

(4) Insurance coverage amounts provided for each counterparty may include coverage provided by affiliates and subsidiaries of the counterparty.

(5) "Approved" mortgage insurers are counterparties approved to write new insurance with us. "Not approved" mortgage insurers are counterparties that are no longer approved to write new insurance with us.

(6) In December 2016, Arch Capital Group Ltd., the ultimate parent company of Arch Mortgage Insurance Co., acquired United Guaranty Corporation. United Guaranty Corporation is the ultimate parent company of United Guaranty Residential Insurance Co.

(7) These mortgage insurers are under various forms of supervised control by their state regulators and are in run-off.

We manage our exposure to mortgage insurers by maintaining eligibility requirements that an insurer must meet to be a qualified mortgage insurer. We require a certification and supporting documentation annually from each mortgage insurer and perform periodic reviews of mortgage insurers to confirm compliance with eligibility requirements and to evaluate their management, control and underwriting practices. Our monitoring of the mortgage insurers includes in-depth financial reviews and analyses of the insurers' portfolios and capital adequacy under hypothetical stress scenarios.

Although the financial condition of our primary mortgage insurer counterparties currently approved to write new business has improved in recent years, there is still a risk that these counterparties may fail to fulfill their obligations to pay our claims under insurance policies. In addition, as shown in "Table 40: Mortgage Insurance Coverage," three of our top mortgage insurer counterparties—PMI Mortgage Insurance Co., Republic Mortgage Insurance Company and Triad Guaranty Insurance Corporation—are currently under various forms of supervised control by their state regulators and are in run-off, which increases the risk that these counterparties will pay claims only in part or fail to pay claims at all under existing insurance policies. See "Risk Factors" for a discussion of the risks to our business of claims under our mortgage insurance policies not being paid in full or at all, including the risks associated with our three mortgage insurance counterparties that are in run-off.

In October 2016, Genworth Financial, Inc., the ultimate parent company of Genworth Mortgage Insurance Corp., announced that it had entered into an agreement to be acquired by China Oceanwide Holdings Group Co., Ltd. The acquisition is subject to regulatory approvals and other closing conditions. In addition, the continued approval of Genworth Mortgage Insurance Corp. as our mortgage insurer counterparty following the acquisition is subject to our review.

When we estimate the credit losses that are inherent in our mortgage loans and under the terms of our guaranty obligations we also consider the recoveries that we will receive on primary mortgage insurance, as mortgage insurance recoveries would reduce the severity of the loss associated with defaulted loans. We evaluate the financial condition of our mortgage insurer counterparties and adjust the contractually due recovery amounts to ensure that only probable losses as of the balance sheet date are included in our loss reserve estimate. As a result, if our assessment of one or more of our mortgage insurer counterparties' ability to fulfill their respective obligations to us worsens, it could result in an increase in our loss reserves. The amount by which our estimated benefit from mortgage insurance reduced our total loss reserves was $1.4 billion as of December 31, 2016 and $2.3 billion as of December 31, 2015.

When an insured loan held in our retained mortgage portfolio subsequently goes into foreclosure, we charge off the loan, eliminating any previously-recorded loss reserves, and record REO and a mortgage insurance receivable for the claim proceeds deemed probable of recovery, as appropriate. However, if a mortgage insurer rescinds, cancels or denies insurance coverage, the initial receivable becomes due from the mortgage seller or servicer. We had outstanding receivables of $1.0 billion recorded in "Other assets" in our consolidated balance sheets as of December 31, 2016 and $1.2 billion as of December 31, 2015 related to amounts claimed on insured, defaulted loans excluding government insured loans. Of this amount, $141 million as of December 31, 2016 and $241 million as of December 31, 2015 was due from our mortgage sellers or servicers. We assessed the total outstanding receivables for collectibility, and they are recorded net of a valuation allowance of $638 million as of December 31, 2016 and $770 million as of December 31, 2015. The valuation allowance reduces our claim receivable to the amount considered probable of collection as of December 31, 2016 and 2015.

Credit Insurance Risk Transfer Counterparties

In a credit insurance risk transfer transaction, we shift a portion of the credit risk on a reference pool of mortgage loans to a panel of credit insurers or reinsurers. A portion of the credit insurers' or reinsurers' obligations are collateralized with highly-rated liquid assets held in a trust account. Our credit insurance risk transfer transactions are described in "Business Segments—Single-Family Business—Single-Family Mortgage Credit Risk Management—Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions."

Financial Guarantors

We are the beneficiary of non-governmental financial guarantees on non-agency securities held in our retained mortgage portfolio and on non-agency securities that have been resecuritized to include a Fannie Mae guaranty and sold to third parties. The total unpaid principal balance of guaranteed non-agency securities in our retained mortgage portfolio was $1.4 billion as of December 31, 2016 and $3.2 billion as of December 31, 2015. See "Note 15, Concentrations of Credit Risk—Other Concentrations" for a further discussion of our exposure to financial guarantors.

We are also the beneficiary of financial guarantees included in securities issued by Freddie Mac, the federal government and its agencies that totaled $11.6 billion as of December 31, 2016 and $16.7 billion as of December 31, 2015.

Multifamily Lenders with Risk Sharing

We enter into risk sharing agreements with lenders pursuant to which the lenders agree to bear all or some portion of the credit losses on the covered loans. Our maximum potential loss recovery from lenders under risk sharing agreements on DUS and non-DUS multifamily loans was $54.8 billion as of December 31, 2016, compared with $46.2 billion as of December 31, 2015. As of December 31, 2016, 43% of our maximum potential loss recovery on multifamily loans was from four DUS lenders, compared with 40% as of December 31, 2015.

As noted above in “Business Segments—Multifamily Business—Multifamily Mortgage Credit Risk Management—Multifamily Acquisition Policy and Underwriting Standards,” our primary multifamily delivery channel is our DUS program, which is comprised of lenders that range from large depositories to independent non-bank financial institutions. As of December 31, 2016 and 2015, approximately 35% of the unpaid principal balance of loans in our multifamily guaranty book of business serviced by our DUS lenders was from institutions with an external investment grade credit rating or a guaranty from an affiliate with an external investment grade credit rating. Given the recourse nature of the DUS program, the lenders are bound by eligibility standards that dictate, among other items, minimum capital and liquidity levels, and the posting of collateral at a highly rated custodian to secure a portion of the lenders’ future obligations. We actively monitor the financial condition of these lenders to help ensure the level of risk remains within our standards and to ensure required capital levels are maintained and are in alignment with actual and modeled loss projections.

Custodial Depository Institutions

We evaluate our custodial depository institutions to determine whether they are eligible to hold deposits on our behalf based on requirements specified in our Servicing Guide. If a custodial depository institution were to fail while holding remittances of borrower payments of principal and interest due to us in our custodial account, we would be exposed to risk for balances in excess of the deposit insurance protection and might not be able to recover all of the principal and interest payments being held by the depository on our behalf, or there might be a substantial delay in receiving these amounts. If this were to occur, we would be required to replace these amounts with our own funds to make payments that are due to Fannie Mae MBS certificateholders. Accordingly, the insolvency of one of our principal custodial depository institutions could result in significant financial losses to us.

A total of $42.3 billion in deposits for single-family payments were received and held by 258 institutions during the month of December 2016 and a total of $31.5 billion in deposits for single-family payments were received and held by 263 institutions during the month of December 2015. Of these total deposits, 91% as of December 31, 2016, compared with 92% as of December 31, 2015, were held by institutions rated as investment grade by S&P, Moody’s and Fitch. Our transactions with custodial depository institutions are concentrated. Our six largest custodial depository institutions held 80% of these deposits as of December 31, 2016, compared with 83% as of December 31, 2015.

During the month of December 2016, a total of $3.1 billion in deposits for multifamily payments were received and held by 27 institutions and $3.4 billion in deposits for multifamily payments were received and held by 28 institutions during the month of December 2015. Of these total deposits, 98% as of December 31, 2016 and 2015, were held by institutions rated as investment grade by S&P, Moody’s and Fitch. Our transactions with custodial depository institutions are concentrated. Our six largest custodial depository institutions held 91% of these deposits as of December 31, 2016, compared with 95% as of December 31, 2015.

Counterparty Credit Exposure of Investments Held in our Cash and Other Investments Portfolio

Our cash and other investments portfolio consists of cash and cash equivalents, securities purchased under agreements to resell or similar arrangements and U.S. Treasury securities. Our cash and other investment counterparties are primarily financial institutions, including clearing organizations, and the Federal Reserve Bank. See “Liquidity and Capital Management—Liquidity Management—Cash and Other Investments Portfolio” for more detailed information on our cash and other investments portfolio.

As of December 31, 2016, our cash and other investments portfolio totaled $88.0 billion and included $32.3 billion of U.S. Treasury securities. As of December 31, 2015, our cash and other investments portfolio totaled $71.5 billion and included $29.5 billion of U.S. Treasury securities. As of December 31, 2016 and 2015, we held a total of $2.0 billion short-term unsecured deposits with two financial institutions that had a short-term credit rating of A-1 from S&P (or its equivalent), based on the lowest credit rating issued by S&P, Moody's and Fitch, and no other unsecured positions other than U.S. Treasury securities. The remaining amounts in our cash and other investment portfolio other than U.S. Treasury securities were primarily composed of securities purchased under agreements to resell or similar arrangements.

We monitor the credit risk position of our cash and other investments portfolio. If one of these counterparties fails to meet its obligations to us under the terms of the investments, it could result in financial losses to us and have a material adverse effect on our earnings, liquidity, financial condition and net worth.

Derivative Counterparty Credit Exposure

Our derivative counterparty credit exposure relates principally to interest rate derivative contracts. We are exposed to the risk that a counterparty in a derivative transaction will default on payments due to us, which may require us to seek a replacement derivative from a different counterparty. This replacement may be at a higher cost, or we may be unable to find a suitable replacement. Historically, our risk management derivative transactions have been made pursuant to bilateral contracts with a specific counterparty governed by the terms of an International Swaps and Derivatives Association Inc. master agreement. Pursuant to regulations implementing the Dodd-Frank Act, we are required to submit certain categories of new interest rate swaps to a derivatives clearing organization. We refer to our derivative transactions made pursuant to bilateral contracts as our OTC derivative transactions and our derivative transactions accepted for clearing by a derivatives clearing organization as our cleared derivative transactions.

We manage our derivative counterparty credit exposure relating to our OTC derivative transactions through enforceable master netting arrangements. These arrangements allow us to net derivative assets and liabilities with the same counterparty. We also manage our derivative counterparty exposure relating to our OTC derivative transactions by requiring counterparties to post collateral, which includes cash, U.S. Treasury securities, agency debt and agency mortgage-related securities.

Our cleared derivative transactions are submitted to a derivatives clearing organization on our behalf through a clearing member of the organization. A contract accepted by a derivatives clearing organization is governed by the terms of the clearing organization's rules and arrangements between us and the clearing member of the clearing organization. As a result, we are exposed to the institutional credit risk of both the derivatives clearing organization and the member who is acting on our behalf. We manage our credit exposure relating to our cleared derivative transactions through enforceable master netting arrangements. These arrangements allow us to net our exposure to cleared derivatives by clearing organization and by clearing member.

We will continue to have material exposure to derivatives clearing organizations and certain of their members in the future as cleared derivative contracts comprise a larger percentage of our derivative instruments. We estimate our exposure to credit loss on derivative instruments by calculating the replacement cost, on a present value basis, to settle at current market prices all outstanding derivative contracts in a net gain position at the counterparty level where the right of legal offset exists.

The fair value of derivatives in a gain position is included in our consolidated balance sheets in "Other assets." Total exposure represents our exposure to credit loss on derivative instruments less the cash and non-cash collateral posted by our counterparties to us. This does not include collateral held in excess of exposure. Our total exposure was $54 million as of December 31, 2016 and $31 million as of December 31, 2015. The majority of our total exposure as of each date consisted of credit risk transfer transactions and mortgage insurance contracts that we account for as derivatives.

As of December 31, 2016 and 2015, we had sixteen counterparties with which we may transact OTC derivative transactions, all of which were subject to enforceable master netting arrangements. We had outstanding notional amounts with all of these counterparties, and the highest concentration by our total outstanding notional amount was approximately 9% as of December 31, 2016 and 7% as of December 31, 2015.

See "Note 9, Derivative Instruments" and "Note 16, Netting Arrangements" for additional information on our derivative contracts as of December 31, 2016 and 2015.

Mortgage Originators, Investors and Dealers

We are routinely exposed to pre-settlement risk through the purchase or sale of closed mortgage loans and mortgage-related securities with mortgage originators, mortgage investors and mortgage dealers. The risk is the possibility that the counterparty will be unable or unwilling to either deliver mortgage assets or compensate us for the cost to cancel or replace the transaction. We manage this risk by determining position limits with these counterparties, based upon our assessment of their creditworthiness, and by monitoring and managing these exposures.

Debt Security Dealers

The credit risk associated with dealers that commit to place our debt securities is that they will fail to honor their contracts to take delivery of the debt, which could result in delayed issuance of the debt through another dealer. We manage these risks by establishing approval standards, monitoring our exposure positions and monitoring changes in the credit quality of dealers.

Document Custodians

We use third-party document custodians to provide loan document certification and custody services for some of the loans that we purchase and securitize. In many cases, our lender customers or their affiliates also serve as document custodians for us. Our ownership rights to the mortgage loans that we own or that back our Fannie Mae MBS could be challenged if a lender intentionally or negligently pledges or sells the loans that we purchased or fails to obtain a release of prior liens on the loans that we purchased, which could result in financial losses to us. When a lender or one of its affiliates acts as a document custodian for us, the risk that our ownership interest in the loans may be adversely affected is increased, particularly in the event the lender were to become insolvent. We mitigate these risks through legal and contractual arrangements with these custodians that identify our ownership interest, as well as by establishing qualifying standards for document custodians and requiring removal of the documents to our possession or to an independent third-party document custodian if we have concerns about the solvency or competency of the document custodian.

Market Risk Management, Including Interest Rate Risk Management

We are subject to market risk, which includes interest rate risk, spread risk and liquidity risk. These risks arise from our mortgage asset investments. Interest rate risk is the risk of loss from adverse changes in the value of our assets or liabilities or our future earnings due to changes in interest rates. Spread risk or basis risk is the resulting impact of changes in the spread between our mortgage assets and our debt and derivatives we use to hedge our position. Liquidity risk is the risk that we will not be able to meet our funding obligations in a timely manner.

Interest Rate Risk Management

Our goal is to manage market risk to be neutral to movements in interest rates and volatility, subject to model constraints and prevailing market conditions. We employ an integrated interest rate risk management strategy that allows for informed risk taking within pre-defined corporate risk limits. Decisions regarding our strategy in managing interest rate risk are based upon our corporate market risk policy and limits that are approved by our Board of Directors.

We have actively managed the interest rate risk of our "net portfolio," which is defined below, through the following techniques: (1) asset selection and structuring (that is, by identifying or structuring mortgage assets with attractive prepayment and other risk characteristics); (2) issuing a broad range of both callable and non-callable debt instruments; and (3) using interest-rate derivatives. We have not actively managed or hedged our spread risk or basis risk, which would include the impact of changes in the spread between our mortgage assets and debt (referred to as mortgage-to-debt spreads) after we purchase mortgage assets, other than through asset monitoring and disposition. For mortgage assets in our portfolio that we intend to hold to maturity to realize the contractual cash flows, we accept period-to-period volatility in our financial performance attributable to changes in mortgage-to-debt spreads that occur after our purchase of mortgage assets. See "Risk Factors" for a discussion of the risks to our business posed by changes in interest rates and changes in spreads.

We monitor current market conditions, including the interest rate environment, to assess the impact of these conditions on individual positions and our interest rate risk profile. In addition to qualitative factors, we use various quantitative risk metrics in determining the appropriate composition of our retained mortgage portfolio, our investments in non-mortgage securities and relative mix of debt and derivatives positions in order to remain within pre-defined risk tolerance levels that we consider acceptable. We regularly disclose two interest rate risk metrics that estimate our interest rate exposure: (1) fair value sensitivity to changes in interest rate levels and the slope of the yield curve and (2) duration gap.

The metrics used to measure our interest rate exposure are generated using internal models. Our internal models, consistent with standard practice for models used in our industry, require numerous assumptions. There are inherent limitations in any methodology used to estimate the exposure to changes in market interest rates. The reliability of our prepayment estimates and interest rate risk metrics depends on the availability and quality of historical data for each of the types of securities in our net portfolio. When market conditions change rapidly and dramatically, as they did during the financial market crisis of late 2008, the assumptions of our models may no longer accurately capture or reflect the changing conditions. On a continuous basis, management makes judgments about the appropriateness of the risk assessments indicated by the models. See "Risk Factors" for a discussion of the risks associated with our reliance on models to manage risk.

Sources of Interest Rate Risk Exposure

The primary source of our interest rate risk is the composition of our net portfolio. Our net portfolio consists of our retained mortgage portfolio assets; cash and other investments portfolio; our outstanding debt of Fannie Mae that is used to fund the retained mortgage portfolio assets and cash and other investments portfolio; mortgage commitments and risk management derivatives. Risk management derivatives along with our debt instruments are used to manage interest rate risk.

Our performing mortgage assets consist mainly of single-family and multifamily mortgage loans. For single-family loans, borrowers have the option to prepay at any time before the scheduled maturity date or continue paying until the stated maturity. Given this prepayment option held by the borrower, we are exposed to uncertainty as to when or at what rate prepayments will occur, which affects the length of time our mortgage assets will remain outstanding and the timing of the cash flows related to these assets. This prepayment uncertainty results in a potential mismatch between the timing of receipt of cash flows related to our assets and the timing of payment of cash flows related to our liabilities.

Changes in interest rates, as well as other factors, influence mortgage prepayment rates and duration and also affect the value of our mortgage assets. When interest rates decrease, prepayment rates on fixed-rate mortgages generally accelerate because borrowers usually can pay off their existing mortgages and refinance at lower rates. Accelerated prepayment rates have the effect of shortening the duration and average life of the fixed-rate mortgage assets we hold in our net portfolio. In a declining interest rate environment, existing mortgage assets held in our net portfolio tend to increase in value or price because these mortgages are likely to have higher interest rates than new mortgages, which are being originated at the then-current lower interest rates. Conversely, when interest rates increase, prepayment rates generally slow, which extends the duration and average life of our mortgage assets and results in a decrease in value.

Although the fair value of our guaranty assets and our guaranty obligations is highly sensitive to changes in interest rates and the market's perception of future credit performance, we do not actively manage the change in the fair value of our guaranty business that is attributable to changes in interest rates. We do not believe that periodic changes in fair value due to movements in interest rates are the best indication of the long-term value of our guaranty business because these changes do not take into account future guaranty business activity.

Interest Rate Risk Management Strategy

Our goal for managing the interest rate risk of our net portfolio is to be neutral to movements in interest rates and volatility. This involves asset selection and structuring of our liabilities to match and offset the interest rate characteristics of our retained mortgage portfolio and our investments in non-mortgage securities. Our strategy consists of the following principal elements:

- Debt Instruments. We issue a broad range of both callable and non-callable debt instruments to manage the duration and prepayment risk of expected cash flows of the mortgage assets we own.
- Derivative Instruments. We supplement our issuance of debt with derivative instruments to further reduce duration and prepayment risks.
- Monitoring and Active Portfolio Rebalancing. We continually monitor our risk positions and actively rebalance our portfolio of interest rate-sensitive financial instruments to maintain a close match between the duration of our assets and liabilities.

Debt Instruments

Historically, the primary tool we have used to fund the purchase of mortgage assets and manage the interest rate risk implicit in our mortgage assets is the variety of debt instruments we issue. The debt we issue is a mix that typically consists of short- and long-term, non-callable and callable debt. The varied maturities and flexibility of these debt combinations help us in reducing the mismatch of cash flows between assets and liabilities in order to manage the duration risk associated with an investment in long-term fixed-rate assets. Callable debt helps us manage the prepayment risk associated with fixed-rate mortgage assets because the duration of callable debt changes when interest rates change in a manner similar to changes in the duration of mortgage assets. See “Liquidity and Capital Management—Liquidity Management—Debt Funding” for additional information on our debt activity.

Derivative Instruments

Derivative instruments also are an integral part of our strategy in managing interest rate risk. Derivative instruments may be privately negotiated contracts, which are often referred to as over-the-counter derivatives, or they may be listed and traded on an exchange. When deciding whether to use derivatives, we consider a number of factors, such as cost, efficiency, the effect on our liquidity and results of operations, and our interest rate risk management strategy. The derivatives we use for interest rate risk management purposes fall into these broad categories:

- Interest rate swap contracts. An interest rate swap is a transaction between two parties in which each agrees to exchange, or swap, interest payments. The interest payment amounts are tied to different interest rates or indices for a specified period of time and are generally based on a notional amount of principal. The types of interest rate swaps we use include pay-fixed swaps, receive-fixed swaps and basis swaps.
- Interest rate option contracts. These contracts primarily include pay-fixed swaptions, receive-fixed swaptions, cancelable swaps and interest rate caps. A swaption is an option contract that allows us or a counterparty to enter into a pay-fixed or receive-fixed swap at some point in the future.
- Foreign currency swaps. These swaps convert debt that we issue in foreign denominated currencies into U.S. dollars. We enter into foreign currency swaps only to the extent that we hold foreign currency debt.
- Futures. These are standardized exchange-traded contracts that either obligate a buyer to buy an asset at a predetermined date and price or a seller to sell an asset at a predetermined date and price. The types of futures contracts we enter into include Eurodollar, U.S. Treasury and swaps.

We use interest rate swaps, interest rate options and futures, in combination with our issuance of debt securities, to better match the duration of our assets with the duration of our liabilities. We are generally an end user of derivatives; our principal purpose in using derivatives is to manage our aggregate interest rate risk profile within prescribed risk parameters. We generally only use derivatives that are relatively liquid and straightforward to value. We use derivatives for four primary purposes:

(1) As a substitute for notes and bonds that we issue in the debt markets;
(2) To achieve risk management objectives not obtainable with debt market securities;
(3) To quickly and efficiently rebalance our portfolio; and
(4) To hedge foreign currency exposure.

Decisions regarding the repositioning of our derivatives portfolio are based upon current assessments of our interest rate risk profile and economic conditions, including the composition of our retained mortgage portfolio, our investments in non-mortgage securities and relative mix of our debt and derivative positions, the interest rate environment and expected trends.

Measurement of Interest Rate Risk

Below we present two quantitative metrics that provide estimates of our interest rate risk exposure: (1) fair value sensitivity of our net portfolio to changes in interest rate levels and slope of yield curve; and (2) duration gap. The metrics presented are calculated using internal models that require standard assumptions regarding interest rates and future prepayments of principal over the remaining life of our securities. These assumptions are derived based on the characteristics of the underlying structure of the securities and historical prepayment rates experienced at specified interest rate levels, taking into account current market conditions, the current mortgage rates of our existing outstanding loans, loan age and other factors. On a continuous basis, management makes judgments about the appropriateness of the risk assessments and will make adjustments as necessary to properly assess our interest rate exposure and manage our interest rate risk. The methodologies used to calculate risk estimates are periodically changed on a prospective basis to reflect improvements in the underlying estimation process.

Interest Rate Sensitivity to Changes in Interest Rate Level and Slope of Yield Curve

Pursuant to a disclosure commitment with FHFA, we disclose on a monthly basis the estimated adverse impact on the fair value of our net portfolio that would result from the following hypothetical situations:

- A 50 basis point shift in interest rates.
- A 25 basis point change in the slope of the yield curve.

In measuring the estimated impact of changes in the level of interest rates, we assume a parallel shift in all maturities of the U.S. LIBOR interest rate swap curve.

In measuring the estimated impact of changes in the slope of the yield curve, we assume a constant 7-year rate and a shift of 16.7 basis points for the 1-year rate and 8.3 basis points for the 30-year rate. We believe the aforementioned interest rate shocks for our monthly disclosures represent moderate movements in interest rates over a one-month period.

Duration Gap

Duration gap measures the price sensitivity of our assets and liabilities in our net portfolio to changes in interest rates by quantifying the difference between the estimated durations of our assets and liabilities. Our duration gap analysis reflects the extent to which the estimated maturity and repricing cash flows for our assets are matched, on average, over time and across interest rate scenarios to those of our liabilities. A positive duration gap indicates that the duration of our assets exceeds the duration of our liabilities. We disclose duration gap on a monthly basis under the caption "Interest Rate Risk Disclosures" in our Monthly Summary, which is available on our website and announced in a press release.

While our goal is to reduce the price sensitivity of our net portfolio to movements in interest rates, various factors can contribute to a duration gap that is either positive or negative. For example, changes in the market environment can increase or decrease the price sensitivity of our mortgage assets relative to the price sensitivity of our liabilities because of prepayment uncertainty associated with our assets. In a declining interest rate environment, prepayment rates tend to accelerate, thereby shortening the duration and average life of the fixed rate mortgage assets we hold in our net portfolio. Conversely, when interest rates increase, prepayment rates generally slow, which extends the duration and average life of our mortgage assets. Our debt and derivative instrument positions are used to manage the interest rate sensitivity of our retained mortgage portfolio and our investments in non-mortgage securities. As a result, the degree to which the interest rate sensitivity of our retained mortgage portfolio and our investments in non-mortgage securities is offset will be dependent upon, among other factors, the mix of funding and other risk management derivative instruments we use at any given point in time.

The market value sensitivities of our net portfolio are a function of both the duration and the convexity of our net portfolio. Duration provides a measure of the price sensitivity of a financial instrument to changes in interest rates while convexity reflects the degree to which the duration of the assets and liabilities in our net portfolio changes in response to a given change in interest rates. We use convexity measures to provide us with information about how quickly and by how much our net portfolio's duration may change in different interest rate environments. The market value sensitivity of our net portfolio will depend on a number of factors, including the interest rate environment, modeling assumptions and the composition of assets and liabilities in our net portfolio, which vary over time.

Results of Interest Rate Sensitivity Measures

The interest rate risk measures discussed below exclude the impact of changes in the fair value of our guaranty assets and liabilities resulting from changes in interest rates. We exclude our guaranty business from these sensitivity measures based on our current assumption that the guaranty fee income generated from future business activity will largely replace guaranty fee income lost due to mortgage prepayments.

Table 41 displays the pre-tax market value sensitivity of our net portfolio to changes in the level of interest rates and the slope of the yield curve as measured on the last day of each period presented. Table 41 also provides the daily average, minimum, maximum and standard deviation values for duration gap and for the most adverse market value impact on the net portfolio to changes in the level of interest rates and the slope of the yield curve for the three months ended December 31, 2016 and 2015.

The sensitivity measures displayed in Table 41, which we disclose on a quarterly basis pursuant to a disclosure commitment with FHFA, are an extension of our monthly sensitivity measures. There are three primary differences between our monthly sensitivity disclosure and the quarterly sensitivity disclosure presented below: (1) the quarterly disclosure is expanded to include the sensitivity results for larger rate level shocks of positive or negative 100 basis points; (2) the monthly disclosure reflects the estimated pre-tax impact on the market value of our net portfolio calculated based on a daily average, while the quarterly disclosure reflects the estimated pre-tax impact calculated based on the estimated financial position of our net portfolio and the market environment as of the last business day of the quarter; and (3) the monthly disclosure shows the most adverse pre-tax impact on the market value of our net portfolio from the hypothetical interest rate shocks, while the quarterly disclosure includes the estimated pre-tax impact of both up and down interest rate shocks.

Table 41: Interest Rate Sensitivity of Net Portfolio to Changes in Interest Rate Level and Slope of Yield Curve

	As of December 31,(1)(2)	
	2016	2015
	(Dollars in billions)	
Rate level shock:		
-100 basis points	$(0.2)	$0.4
-50 basis points	0.0	0.1
+50 basis points	0.0	(0.1)
+100 basis points	0.0	(0.4)
Rate slope shock:		
-25 basis points (flattening)	0.0	0.0
+25 basis points (steepening)	0.0	0.0

	For the Three Months Ended December 31, 2016(1)(3)		
	Duration Gap	Rate Slope Shock 25 bps	Rate Level Shock 50 bps
		Exposure	
	(In months)	(Dollars in billions)	
Average	0.3	$0.0	$(0.1)
Minimum	(0.3)	(0.1)	(0.1)
Maximum	0.9	0.0	0.0
Standard deviation	0.3	0.0	0.0

	For the Three Months Ended December 31, 2015(1)(3)		
	Duration Gap	Rate Slope	Rate Level

		Shock 25 bps	Shock 50 bps
	(In months)	Exposure (Dollars in billions)	
Average	0.0	$0.0	$0.1
Minimum	(1.2)	0.0	0.0
Maximum	1.2	0.1	0.2
Standard deviation	0.5	0.0	0.1

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(1) Computed based on changes in U.S. LIBOR interest rates swap curve.
(2) Measured on the last day of each period presented.

(3) Computed based on daily values during the period presented.

The market value sensitivity of our net portfolio varies across a range of interest rate shocks depending upon the duration and convexity profile of our net portfolio. Because the effective duration gap of our net portfolio was close to zero months in the periods presented, the convexity exposure was the primary driver of the market value sensitivity of our net portfolio as of December 31, 2016 and 2015. In addition, the convexity exposure may result in similar market value sensitivities for positive and negative interest rate shocks of the same magnitude.

A majority of the interest rate risk associated with our mortgage-related securities and loans is hedged with our debt issuances, which include callable debt. We use derivatives to help manage the residual interest rate risk exposure between our assets and liabilities. Derivatives have enabled us to keep our interest rate risk exposure at consistently low levels in a wide range of interest-rate environments. Table 42 displays an example of how derivatives impacted the net market value exposure for a 50 basis point parallel interest rate shock.

Table 42: Derivative Impact on Interest Rate Risk (50 Basis Points)

As of December 31,[1]

2016