FEDERAL NATIONAL MORTGAGE ASSOCIATION FANNIE MAE
Form 10-K
February 14, 2019

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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, 2018

Commission file number: 0-50231

Federal National Mortgage Association

(Exact name of registrant as specified in its charter)

Fannie Mae

Federally chartered corporation	**52-0883107**	**1100 15th Street, NW Washington, DC 20005**	**(800) 2FANNIE (800-232-6643)**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*	*(Address of principal executive offices, including zip code)*	*(Registrant's telephone number, including area code)*

Securities registered pursuant to Section 12(b) of the Act: None
Securities registered pursuant to Section 12(g) of the Act:
Common Stock, without par value
8.25% Non-Cumulative Preferred Stock, Series T, stated value $25 per share
8.75% Non-Cumulative Mandatory Convertible Preferred Stock, Series 2008-1, stated value $50 per share
Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series S, stated value $25 per share
7.625% Non-Cumulative Preferred Stock, Series R, stated value $25 per share
6.75% Non-Cumulative Preferred Stock, Series Q, stated value $25 per share
Variable Rate Non-Cumulative Preferred Stock, Series P, stated value $25 per share
Variable Rate Non-Cumulative Preferred Stock, Series O, stated value $50 per share
5.375% Non-Cumulative Convertible Series 2004-1 Preferred Stock, stated value $100,000 per share
5.50% Non-Cumulative Preferred Stock, Series N, stated value $50 per share
4.75% Non-Cumulative Preferred Stock, Series M, stated value $50 per share
5.125% Non-Cumulative Preferred Stock, Series L, stated value $50 per share
5.375% Non-Cumulative Preferred Stock, Series I, stated value $50 per share
5.81% Non-Cumulative Preferred Stock, Series H, stated value $50 per share
Variable Rate Non-Cumulative Preferred Stock, Series G, stated value $50 per share
Variable Rate Non-Cumulative Preferred Stock, Series F, stated value $50 per share
5.10% Non-Cumulative Preferred Stock, Series E, stated value $50 per share
5.25% Non-Cumulative Preferred Stock, Series D, stated value $50 per share
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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes 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, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ	Accelerated filer o
Non-accelerated filer o	Smaller reporting company o
Emerging growth company o	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. 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 OTCQB, operated by OTC Markets Group, Inc., on June 29, 2018 (the last business day of the registrant’s most recently completed second fiscal quarter) was approximately $1.6 billion.

As of January 31, 2019, there were 1,158,087,567 shares of common stock of the registrant outstanding.

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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 provided for the exercise of certain authorities by our Board of Directors. 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 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. Congress and the Administration continue to consider options for reform of the housing finance system, including Fannie Mae.
We are not permitted to retain more than $3.0 billion in capital reserves or to pay dividends or other distributions to stockholders other than the U.S. Department of the Treasury ("Treasury"). Our agreements with Treasury include covenants that significantly restrict our business activities. For additional information on the conservatorship, the uncertainty of our future, our agreements with Treasury, and recent actions and statements relating to housing finance reform by the Administration, Congress and FHFA, see "Conservatorship, Treasury Agreements and Housing Finance Reform," "Charter Act and Regulation" and "Risk Factors."

Forward-looking statements in this report are based on management's current expectations and are subject to significant uncertainties and changes in circumstances, as we describe in "Business—Forward-Looking Statements." Future events and our future results may differ materially from those reflected in our forward-looking statements due to a variety of factors, including those discussed in "Risk Factors" and elsewhere in this report.

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

Item 1. Business

Introduction

Fannie Mae provides a stable source of liquidity to the mortgage market and supports the availability and affordability of housing in the United States. We operate in the secondary mortgage market, primarily working with lenders. We do not originate loans or lend money directly to consumers in the primary mortgage market. Instead, we securitize mortgage loans originated by lenders into Fannie Mae mortgage-backed securities that we guarantee (which we refer to as Fannie Mae MBS or our MBS); purchase mortgage loans and mortgage-related securities, primarily for securitization and sale at a later date; manage mortgage credit risk; and engage in other activities that support the supply of affordable housing. Through our single-family and multifamily business segments, we provided $512 billion in liquidity to the mortgage market in 2018, which enabled the financing of approximately 3 million home purchases, refinancings or rental units.

Fannie Mae Provided $512 Billion in Liquidity in 2018

Executive Summary

Please read this Executive Summary together with our MD&A and our consolidated financial statements as of December 31, 2018 and related notes to the consolidated financial statements.

Summary of Our Financial Performance

Consolidated Results

(Dollars in billions)

(1) Net revenues consist of net interest income and fee and other income.

2017 vs. 2016

The decrease in our net income in 2017 compared with 2016 was primarily driven by:

- a $9.9 billion one-time federal income tax charge resulting from the enactment of the Tax Cuts and Jobs Act (the "Tax Act") that drove the remeasurement of our deferred tax assets using the lower corporate tax rate enacted in the fourth quarter of 2017.

The increase in our pre-tax income in 2017 compared with 2016 was primarily driven by:

- higher net revenues due to $975 million of income resulting from a settlement agreement in 2017 resolving legal claims related to private-label securities we purchased.

2018 vs. 2017

The increase in our net income in 2018 compared with 2017 was primarily driven by a reduction in our provision for federal income taxes in 2018 due to:

- the absence of the $9.9 billion one-time tax charge for federal income taxes recorded in 2017; and
- the lower corporate tax rate in effect as a result of the Tax Act.

The increase in our pre-tax income in 2018 compared with 2017 was primarily driven by:

- a shift to fair value gains from fair value losses;
- an increase in credit-related income;
- partially offset by a decrease in fee and other income.

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See "MD&A—Consolidated Results of Operations" for more information on our financial results.

Net Worth. Our net worth of $6.2 billion as of December 31, 2018 reflects our comprehensive income of $3.2 billion for the fourth quarter of 2018 and $3.0 billion in retained capital reserves.

Financial Performance Outlook

We expect to remain profitable on an annual basis for the foreseeable future; however, certain factors could result in significant volatility in our financial results from quarter to quarter or year to year. We expect quarterly volatility in our financial results due to a number of factors, particularly changes in market conditions that result in fluctuations in the estimated fair value of our derivatives and other financial instruments that we mark to market through our earnings. Other factors that may result in volatility in our quarterly financial results include developments that affect our loss reserves, such as redesignations of loans from held for investment ("HFI") to held for sale ("HFS"), changes in interest rates, home prices or accounting standards, or events such as natural disasters, and other factors, as we discuss in "Risk Factors" and "MD&A—Consolidated Results of Operations—Credit-Related Income (Expense)."

The potential for significant volatility in our financial results could result in a net loss in a future quarter. We are permitted to retain up to $3.0 billion in capital reserves as a buffer in the event of a net loss in a future quarter. However, any net loss we experience in the future could be greater than the amount of our capital reserves, resulting in a net worth deficit for that 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 to avoid being placed into receivership. See "Risk Factors" for a discussion of the risks associated with the limitations on our ability to rebuild our capital reserves, including factors that could result in a net loss or net worth deficit in a future quarter.

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 the senior preferred stock purchase agreement, we issued shares of senior preferred stock to Treasury in 2008. Acting as successor to the rights, titles, powers and privileges of the Board, the conservator has declared and directed us to pay dividends to Treasury on the senior preferred stock on a quarterly basis for every dividend period for which dividends were payable since we entered conservatorship.

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.

Treasury Draws and Dividend Payments: 2008 - 2018
(Dollars in billions)

(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. 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. Draw requests have been funded in the quarter following a net worth deficit.

We expect to pay Treasury a first quarter 2019 dividend of $3.2 billion by March 31, 2019. The senior preferred stock currently provides for dividends each quarter in the amount, if any, by which our net worth as of the end of the prior quarter exceeds a $3.0 billion capital reserve amount.

As of the date of this filing, the maximum amount of remaining funding under the agreement is $113.9 billion. If we were to draw additional funds from Treasury under the agreement with respect to 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, Treasury Agreements and Housing Finance Reform—Treasury Agreements."

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 Strategic 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 risk. We are advancing this vision by pursuing four strategic objectives:

- advancing a sustainable and reliable business model with low risk to the housing finance system and taxpayers;
- providing great service to our customers and partners, enabling them to serve the needs of American households more effectively;
- supporting and sustainably increasing access to credit and affordable housing; and
- building a simple, efficient, innovative and continuously improving company.

We believe pursuing these strategic objectives will position us to compete effectively in a diverse and rapidly changing housing finance market in the years ahead.

Advancing a sustainable and reliable business model with low risk to the housing finance system and taxpayers

We have significantly changed our business model over the last decade in ways that reduce risks for the housing system and taxpayers. After strengthening our underwriting and eligibility standards, we developed innovative credit risk transfer programs, and we now transfer a portion of the credit risk on our guaranty book of business to private investors. We have also transitioned from a portfolio-driven business to a guaranty-driven business. Taken together, these changes affect how we manage credit risk, market risk, and liquidity and funding risk, and they have transformed our business model into one that focuses Fannie Mae's efforts on safely delivering the value of our risk management expertise to our customers, to taxpayers, and to the housing system as a whole.

Strong underwriting and eligibility standards

Our underwriting and eligibility standards have significantly improved the credit quality of our single-family guaranty book of business during the last decade. Combined with improvement in the overall economy, including strong home price growth and reduced levels of unemployment, our strong underwriting and eligibility standards have driven substantial improvement in our credit performance during the last decade. Our single-family serious delinquency rate decreased in 2018, primarily driven by improved loan payment performance and nonperforming loan sales, after increasing in 2017 due to Hurricanes Harvey, Irma and Maria (the "2017 hurricanes"). With the exception of 2017, our single-family serious delinquency rate has decreased in each of the last nine years.

Single-Family Serious Delinquency Rate[1]

(1) Calculated as of December 31 for each year shown, 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.

Transferring mortgage credit risk

We continue to innovate and improve our credit risk transfer programs, expanding the types of loans covered and promoting the continued growth of the credit risk transfer market. For single-family mortgages, we have relied principally on two types of transactions to transfer credit risk: our Connecticut Avenue Securities® ("CAS") transactions and our Credit Insurance Risk Transfer™ ("CIRT™") transactions. In these transactions, we transfer to investors a portion of the credit risk associated with losses on a reference pool of mortgage loans. In November 2018, we completed our first CAS offering under a new Real Estate Mortgage Investment Conduit ("REMIC") structure. This new structure is designed to promote the continued growth of the market by expanding the potential investor base for these securities and limiting investor exposure to Fannie Mae counterparty risk, without disrupting the "To-Be-Announced" ("TBA") MBS market. The new structure will also align the timing of our recognition of provisions for credit losses with the related recovery from CAS REMIC™ transactions. While our Multifamily business has for many years used a shared-risk business model through our Delegated Underwriting and Servicing ("DUS®") program, we are also transferring multifamily mortgage credit risk beyond our DUS program. In 2018, we completed our third and fourth multifamily CIRT transactions since the inception of the program, and we expect to continue to expand this program and explore additional programs for transferring multifamily mortgage credit risk. See "Managing Mortgage Credit Risk," "MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management" and "MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management" for more information on how we manage credit risk in our guaranty book of business.

A guaranty-driven business

We have two primary sources of revenues:

- guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties; and

- the difference between interest income earned on the assets in our retained mortgage portfolio and our other investments portfolio (collectively, our “portfolios”) and the interest expense associated with the debt that funds those assets. Our retained mortgage portfolio, which we discuss in “MD&A—Retained Mortgage Portfolio,” refers to the mortgage-related assets we own (excluding the portion of assets that back mortgage-related securities owned by third parties), including assets we use to provide liquidity to the mortgage markets and for our loss mitigation efforts.

Both of these sources of revenues are recorded as net interest income in our consolidated financial statements.

More than 75% of our 2018 net interest income was derived from the loans underlying our Fannie Mae MBS in consolidated trusts, which primarily generate income through guaranty fees. The chart below shows the portion of our net interest income derived from guaranty fees compared with the portion derived from assets in our portfolios.

Sources of Net Interest Income and Retained Mortgage Portfolio Balance

(Dollars in billions)

(1) Guaranty fee income includes the impact of a 10 basis point guaranty fee increase implemented in 2012 pursuant to the Temporary Payroll Tax Cut Continuation Act of 2011, the incremental revenue from which is remitted to Treasury and not retained by us.

Common securitization platform and Single Security Initiative

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. These efforts include our work with Freddie Mac, our jointly owned limited liability company, Common Securitization Solutions, LLC (“CSS”), and FHFA to develop a common securitization platform that, starting in 2019, we expect to use to perform certain aspects of the securitization process. We are also working with Freddie Mac, CSS and FHFA on the “Single Security Initiative” to develop and implement a uniform mortgage-backed security for Fannie Mae and Freddie Mac. The common securitization platform and the Single Security Initiative represent significant changes for the mortgage market and for our securitization operations and business. See “Mortgage Securitizations—Common Securitization Platform and Single Security Initiative” and “Risk Factors—GSE and Conservatorship Risk” for more information on these efforts and the risks they present. See “Conservatorship, Treasury Agreements and Housing Finance Reform—Housing Finance Reform—Conservator Developments and Strategic Goals” for more information on FHFA’s strategic goals for our conservatorship.

Providing great service to our customers and partners, enabling them to serve the needs of American households more effectively

We achieve our mission through our customers. Responding to and anticipating the changing needs of our mortgage lender and servicer customers with products, services and tools that offer greater speed, efficiency and effectiveness is a core part of our strategy. In 2018, we continued to make improvements to our business processes and policies to serve our customers better and enhance the value they can deliver to borrowers. We continue to work towards our goal of a digital mortgage process that meaningfully reduces the time, cost and risk of originating and servicing mortgage loans. In addition to providing value to our customers, we believe these improvements will encourage lenders to safely expand their lending to a wider range of qualified borrowers. We also continue to work on enhancing our customers' day-to-day experience in doing business with us.

We believe our investments in an improved customer experience will provide us with not only a competitive advantage, but also allow us to collaborate with customers more effectively on long-term efforts to create new solutions to serve a continuously changing housing finance market.

Supporting and sustainably increasing access to credit and affordable housing

We have a mission to provide liquidity and promote stability and affordability in the residential mortgage market. This mission includes promoting access to mortgage credit throughout the nation. We are focused on supporting sustainable access to credit and affordable housing, within our risk tolerance. Market forces in recent years have contributed to an overall decline in the supply of affordable housing for both single-family homes and multifamily rental housing. We are working on multiple fronts to help address housing affordability issues. For example:

- *Serving underserved markets.* We began implementing our Duty to Serve plan in January 2018, which incorporates innovative solutions to expand our reach into three underserved markets: manufactured housing; affordable housing preservation; and rural housing.
- *Providing liquidity through our activities.* We continue to support housing affordability through our purchases of loans to meet our single-family and multifamily housing goals. In addition, in 2018 our Multifamily business resumed investing in low income housing tax credit ("LIHTC") projects to help support and preserve the supply of affordable housing.
- *Financing programs to address affordable housing supply and barriers to homeownership.* We are working with some customers and other partners to develop and test financing programs that could spur the development of more affordable housing supply and help borrowers prudently overcome barriers to homeownership.
- *Advancing sustainable, healthy communities.* Through our Sustainable Communities Initiative, we are working with partners to find new ways to increase, improve and preserve the supply of affordable housing through the advancement of sustainable, healthy communities.
- *Collaboration to reduce cost of producing and maintaining housing.* We have initiated a number of collaborations with participants in the housing industry to find ways housing can be produced and maintained with lower costs, with a focus on cost reductions that our secondary market role could help enable.
- *Macroeconomic and housing research. We* are working to understand and help educate the market about a variety of related macroeconomic and housing issues, including the effect that inadequate new home production in the current expansion has in limiting housing affordability, particularly for low- and moderate-income borrowers.

See "Charter Act and Regulation—Charter Act" for more information about our mission.

Building a simple, efficient, innovative and continuously improving company

With the goal of making Fannie Mae more competitive and responsive to changing market conditions and customer expectations, we continue to work on internal, multiyear initiatives to make our organization simpler, more efficient and more innovative. For example, we made significant progress in 2018 on a number of strategic projects to improve our technology infrastructure, including projects aimed at simplifying the customer experience and improving our data infrastructure. We also continued to implement plans designed to improve the effectiveness of our organization, including continuing to increase the percentage of our workforce using our Way of Working management system, which is based on lean management principles and techniques.

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) the three broad categories of our securitization transactions; (2) features of our MBS trusts; (3) single-class and multi-class Fannie Mae MBS and (4) our work to develop a common securitization platform and a uniform mortgage-backed security.

Securitization Transactions

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 Swap Transactions

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. Lenders may hold the Fannie Mae MBS they receive from us or sell them to investors. 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 are entitled to 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.

Lender Swap Transaction

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 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, we also purchase mortgage loans and mortgage-related securities for securitization and sale at a later date through our "portfolio securitization transactions." 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 typically smaller 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. Reperforming loans are mortgage loans on which the borrower had previously been delinquent but subsequently became current, either with or without a modification.

Portfolio Securitization Transaction

Structured Securitization Transactions

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. Generally, 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 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.

Common Securitization Platform and Single Security Initiative

In pursuit of the strategic goals identified by our conservator, for the past several years we have been working with FHFA, Freddie Mac and CSS on the development of a common securitization platform that we expect to use beginning in 2019 to perform certain aspects of the securitization process. We have also been working on developing and implementing a single-family uniform mortgage-backed security for Fannie Mae and Freddie Mac.

Common Securitization Platform

The intended purpose of the common securitization platform, which is operated by CSS, is to replace certain elements of Fannie Mae's and Freddie Mac's proprietary systems for securitizing mortgages and performing associated back office and administrative functions. In addition, FHFA specified that the design of the common securitization platform should allow for the integration of additional market participants in the future.

While Fannie Mae and Freddie Mac each fund CSS and each appoint two managers to the CSS Board of Managers, CSS operates as a company separate from us and Freddie Mac. 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 in November 2016. 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 support of the initial issuance of the single security expected in June 2019.

Single Security Initiative

The uniform mortgage-backed security, which we, Freddie Mac and FHFA have been working on since 2014, is intended to maximize liquidity for both Fannie Mae and Freddie Mac mortgage-backed securities in the TBA market. In March 2018, FHFA announced that Fannie Mae and Freddie Mac will start issuing these uniform mortgage-backed securities, or "UMBS," on June 3, 2019. FHFA has determined that the following features will apply to these securities:

- Fannie Mae and Freddie Mac will each issue and guarantee UMBS 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 uniform mortgage-backed securities will be limited to fixed-rate mortgage loans now eligible for financing through the TBA market;
- Fannie Mae and Freddie Mac will each be able to issue and guarantee second-level securities, also referred to as resecuritizations, backed by first- or second-level UMBS issued by either company;
- key features of the new uniform mortgage-backed security will be the same as those of the current Fannie Mae MBS;
- the loan- and security-level disclosures for uniform mortgage-backed 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 uniform mortgage-backed 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 uniform mortgage-backed securities.

Once UMBS are issued, lender customers, securities dealers and other investors will be able to swap UMBS issued by either Fannie Mae or Freddie Mac for a new form of structured security issued and guaranteed by Fannie Mae (to be called "Supers") that combines collateral and provides Fannie Mae's guaranty of principal and interest on the underlying UMBS, even if that UMBS was not issued by Fannie Mae. We expect that once we begin issuing UMBS, the vast majority of our single-family MBS will be issued as UMBS.

Historically, Fannie Mae MBS had a trading advantage over comparable Freddie Mac PCs. One of FHFA's stated objectives for the Single Security Initiative is to reduce the costs to Freddie Mac and taxpayers that result from differences in liquidity of Fannie Mae MBS and Freddie Mac PCs. In the last couple of years, as the implementation date of the Single Security Initiative has drawn closer, Fannie Mae MBS and comparable Freddie Mac PCs have been trading at or near parity. See "Risk Factors" for a discussion of the risks to our business associated with the Single Security Initiative.

Managing Mortgage Credit Risk

We facilitate the flow of global capital into the U.S. mortgage market by assuming and managing credit risk. Accordingly, effective credit risk management is a key component of our overall operations. Our single-family and multifamily businesses have built a comprehensive approach to credit risk management with end-to-end processes.

Our single-family credit risk management strategy includes acquisition and servicing policies, underwriting and servicing standards, portfolio diversification and monitoring, problem loan and real estate owned ("REO") management, and the transfer of credit risk through credit enhancements including risk transfer transactions.

The Federal National Mortgage Association Charter Act, which we refer to as the Charter Act or our charter, requires that we obtain credit enhancements on our single-family conventional mortgage loans that have loan-to-value ("LTV") ratios over 80% when we acquire them. We use several types of credit enhancements, including primary mortgage insurance and pool mortgage insurance.

In addition, our Single-Family business has developed risk-sharing capabilities to obtain credit enhancement by transferring portions of our single-family mortgage credit risk to the private market. In most of our credit risk transfer transactions, investors receive payments, which effectively reduce the guaranty fee income we retain on the loans. In exchange we transfer to investors a small portion of our expected losses and a significant portion of the losses we expect we would incur in a stressed credit environment, such as a severe or prolonged downturn.

The chart below displays the percentage of loans in our single-family guaranty book of business, measured by unpaid principal balance, that are covered by one or more forms of credit enhancement, including mortgage insurance or a credit risk transfer transaction.

Single-Family Guaranty Book of Business with Credit Enhancement

The portion of our single-family guaranty book of business without credit enhancement consists mostly of:

- loans that did not require credit enhancement at the time we acquired them because they had LTV ratios below 80%;
- loans we acquired before the inception of or too recently to be included in our CAS or CIRT programs; and
- loans that are not in our current target population for credit risk transfer transactions because they have lower LTV ratios, are intermediate-term or adjustable-rate mortgages, or were acquired under our former Refi Plus™ refinancing initiative for borrowers with high LTV ratios due to declines in home prices.

We will continue to transfer more credit risk to investors in future years. See "MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management" for more information on credit enhancements on our single-family loans, including our target criteria for including loans in a credit risk transfer transaction, and how we manage credit risk in our single-family guaranty book.

Our Multifamily business uses a shared-risk business model that distributes credit risk to the private markets, primarily through our DUS program, which was initiated in 1988. Under DUS, we delegate to lenders the ability to underwrite multifamily loans in accordance with our standards and requirements, and our DUS lenders typically share with us approximately one-third of the credit risk on these loans, aligning the interests of lenders and Fannie Mae from day one. We also transfer multifamily mortgage credit risk outside of our DUS program, including through multifamily CIRT transactions. We expect to expand our multifamily CIRT program and explore additional programs for transferring multifamily credit risk. As of December 31, 2018, 98% of the unpaid principal balance of loans in our multifamily guaranty book of business had lender risk-sharing, compared with 96% as of December 31, 2017. See "MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management" for more information on how we manage credit risk in our multifamily guaranty book.

Conservatorship, Treasury Agreements and Housing Finance Reform

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 "Charter Act and Regulation—GSE Act and Other Regulation—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 issued an order that provided for our Board of Directors to exercise specified authorities. The conservator also provided instructions regarding matters for which conservator decision or notification is required. The conservator retains the authority to amend or withdraw its order and instructions at any time. For more information on the authorities of our Board of Directors during conservatorship, see "Directors, Executive Officers and Corporate Governance—Corporate Governance—Conservatorship and Board Authorities."

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. However, 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, pursuant to which we issued to Treasury one million shares of Variable Liquidation Preference Senior Preferred Stock, Series 2008-2, which we refer to as the "senior preferred stock," and a warrant to purchase 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 for a nominal price.

The senior preferred stock purchase agreement was amended and restated on September 26, 2008 and was subsequently amended three times: in May 2009, December 2009 and August 2012. In addition, the dividend and liquidation preference provisions of the senior preferred stock were amended in December 2017 pursuant to a letter agreement between us, through FHFA in its capacity as conservator, and Treasury. See "Risk Factors" for a description of the risks to our business relating to the senior preferred stock purchase agreement, 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

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 in the United States of America ("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 $113.9 billion. If we were to draw additional funds from Treasury under the agreement with respect to a future period, the amount of remaining funding under the agreement would be reduced by the amount of our draw. 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.

Dividend payments we make to Treasury do not restore or increase the amount of funding available to us under the senior preferred stock purchase agreement. The amount of remaining funding under the agreement also would not change if the full quarterly dividend amount were not declared and paid to Treasury.

Treasury's funding commitment under the senior preferred stock purchase agreement has no expiration date. The 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 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.

Most provisions of the senior preferred stock purchase agreement may be waived or amended by mutual 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 with respect to that failure, any holder of such defaulted debt securities or Fannie Mae MBS may file a claim in the United States Court of Federal Claims for relief requiring Treasury to fund us up to (1) the amount necessary to cure the payment defaults on our debt and Fannie Mae MBS, (2) the deficiency amount, or (3) the amount of remaining funding under the senior preferred stock purchase agreement, whichever is the least. Any payment that Treasury makes under those circumstances will be treated for all purposes as a draw under the agreement that will increase the liquidation preference of the senior preferred stock.

Senior Preferred Stock

Shares of the senior preferred stock have no par value and have a stated value and initial liquidation preference equal to $1,000 per share, for an aggregate initial liquidation preference of $1.0 billion. Under the terms of the senior preferred stock, the aggregate liquidation preference is increased by the following:

- any amounts Treasury pays to us pursuant to its funding commitment under the senior preferred stock purchase agreement (a total of $119.8 billion as of the date of this filing),
- any quarterly commitment fees that are payable but not paid in cash (no such fees have become payable, nor will they under the current terms of the agreement and the senior preferred stock), and
- any dividends that are payable but not paid in cash to Treasury, regardless of whether or not they are declared.

In addition, the December 2017 letter agreement increased the aggregate liquidation preference of the senior preferred stock by $3.0 billion as of December 31, 2017.

Accordingly, the aggregate liquidation preference of the senior preferred stock was $123.8 billion as of December 31, 2018.

Treasury, as the holder of the senior preferred stock, is entitled to receive, when, as and if declared, out of legally available funds, cumulative quarterly cash dividends. The dividends we have paid to Treasury on the senior preferred stock during conservatorship have been declared by, and paid at the direction of, our conservator, acting as successor to the rights, titles, powers and privileges of the Board of Directors.

The dividend provisions of the senior preferred stock have been amended twice.

- *Original Dividend Rate.* As originally issued, the senior preferred stock provided for cumulative quarterly cash dividends at an annual rate of 10% per year on the stock's then-current liquidation preference. This dividend rate was applicable from the fourth quarter of 2008 through the fourth quarter of 2012.
-

*"Net Worth Sweep" Amendment*As amended in August 2012, the senior preferred stock provides for a "net worth sweep" dividend. For each quarterly dividend period, the dividend amount is 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. Our net worth is defined as 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. The applicable capital reserve amount was initially $3.0 billion for dividend periods in 2013 and decreased by $600 million each year until it reached $600 million for dividend periods in 2017. These provisions became applicable in the first quarter of 2013 and remain in effect as modified by the December 2017 letter agreement.

- *December 2017 Amendment.* As amended in December 2017, the applicable capital reserve amount was increased to $3.0 billion. If we do not declare and pay the dividend amount in full for any dividend period for which dividends are payable, then the applicable capital reserve amount will thereafter be zero. The December 2017 letter agreement also reduced by $2.4 billion the dividend amount otherwise payable for the fourth quarter of 2017.

As a result of these amended dividend provisions, for each quarterly period beginning with the first quarter of 2018, dividends on the senior preferred stock accumulate and are payable based on the amount by which our net worth as of the end of the immediately preceding fiscal quarter exceeds $3.0 billion. If our net worth does not exceed the applicable capital reserve amount of $3.0 billion as of the end of the immediately preceding fiscal quarter, then dividends will neither accumulate nor be payable for such period.

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. As a result, if we are liquidated, the holder of the senior preferred stock is entitled to its then-current liquidation preference (which includes any accumulated but unpaid dividends) before any distribution is made to the holders of our common stock or other preferred stock.

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) accumulated 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.

Common Stock Warrant

Pursuant to the senior preferred stock purchase agreement, on September 7, 2008, we, through FHFA, in its capacity as conservator, issued to Treasury a 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 on the date the warrant is exercised, 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 contains covenants that prohibit us from taking a number of actions without the prior written consent of Treasury, including:

- paying dividends or other distributions on or repurchasing our equity securities (other than the senior preferred stock or warrant);
- issuing 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) the assets have a fair market value individually or in the aggregate of less than $250 million;
- issuing subordinated debt; and

- seeking or permitting the termination of our conservatorship, other than in connection with a receivership.

The senior preferred stock purchase agreement also prohibits us from entering into any new compensation arrangements or increasing amounts or benefits payable under existing compensation arrangements with 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.

In addition, the senior preferred stock purchase agreement subjects us to limits on the amount of mortgage assets that we may own and the total amount of our indebtedness.

- *Mortgage Asset Limit.* The amount of mortgage assets we are permitted to own decreased by a specified amount each year until it reached a limit of $250.0 billion as of December 31, 2018. In addition, FHFA has directed that we further cap our mortgage assets at $225.0 billion. For purposes of calculating our limit, mortgage asset amounts are based on the unpaid principal balance of such assets and do not reflect market valuation adjustments, allowance for loan losses, impairments, unamortized premiums and discounts and the impact of our consolidation of variable interest entities. Applying this measure, our mortgage assets as of December 31, 2018 were $179.2 billion. We disclose the amount of our mortgage assets on a monthly basis under the caption "Mortgage Portfolio End Balance" in our Monthly Summaries, which are available on our website and announced in a press release.
- *Debt Limit.* Our debt limit under the senior preferred stock purchase agreement is set at 120% of the amount of mortgage assets we were allowed to own under the agreement on December 31 of the immediately preceding calendar year. Accordingly, our debt limit in 2018 was $346.1 billion and, beginning in 2019 and for each year thereafter, our debt limit is $300.0 billion. For purposes of this calculation, indebtedness is based on the par value of each applicable loan and does not reflect the impact of consolidation of variable interest entities. Applying this measure, our indebtedness as of December 31, 2018 was $232.5 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. Each year we remain in conservatorship we are required to provide Treasury a risk management plan that sets out our strategy for reducing our risk profile, describes the actions we will take to reduce the financial and operational risk associated with each of our business segments, and includes 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 2018.

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 16, Commitments and Contingencies."

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, Fannie Mae and Freddie Mac should play. We describe below some 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. We expect Congress, the Administration and FHFA to continue to consider housing finance reform, which could result in significant changes in our structure and role in the future. As a result, there continues to be significant uncertainty regarding the future of our company. See "Risk Factors—GSE and Conservatorship Risk" for more information on our uncertain future, including the risks to our business and profitability arising from our conservatorship status and potential housing finance reform.

Administration Developments

Officials in the Trump Administration have indicated that resolving the conservatorships of Fannie Mae and Freddie Mac is a priority and that the Administration intends to release a framework for housing finance reform in early 2019.

On January 3, 2019 President Trump submitted the nomination of Mark Calabria to serve as Director of FHFA for a five-year term. On January 7, 2019, Joseph Otting, Comptroller of the Currency, became Acting Director of FHFA pending Senate confirmation of Mr. Calabria's nomination. As we discuss in "Risk Factors—GSE and Conservatorship Risk," the changes in leadership at the FHFA could result in significant changes to FHFA's goals for our conservatorship and have a material impact on our business and financial results.

Legislative Developments

The Chairman of the Senate Committee on Banking, Housing and Urban Affairs and the Chairwoman of the House Committee on Financial Services have each stated that addressing housing finance reform is a responsibility of their respective Committees. On February 1, 2019, the Chairman of the Senate Banking Committee stated his desire to reform the housing finance system and released an outline of reform legislation. Congress may continue to consider proposed housing finance reform 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.

Conservator Developments and Strategic Goals

Strategic Goals and Scorecards

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.

Since 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 more sustainable housing finance system. FHFA's recent conservatorship scorecards have included objectives relating to development of the common securitization platform for Fannie Mae and Freddie Mac, development of UMBS, credit risk transfer transactions, and mortgage data standardization.

For more information on FHFA's 2019 conservatorship scorecard objectives, see our Current Report on Form 8-K filed with the SEC on December 20, 2018. For information on actions we took in 2018 pursuant to FHFA's 2018 conservatorship scorecard, see "Executive Compensation—Compensation Discussion and Analysis—Determination of 2018 Compensation—Assessment of Corporate Performance against 2018 Conservatorship Scorecard."

Proposed Rule on MBS Prepayment Rates

On September 12, 2018, FHFA issued a proposed rule to require Fannie Mae and Freddie Mac to align their programs, policies and practices that affect the prepayment rates of TBA-eligible MBS. The rule would apply to Fannie Mae's and Freddie Mac's current offerings of TBA-eligible MBS and to the new UMBS scheduled to be implemented in June 2019. The objective of the Single Security Initiative and the proposed rule is to enhance the overall liquidity of Fannie Mae and Freddie Mac TBA-eligible MBS by supporting their fungibility without regard to which company is the issuer. The proposed rule notes that "[t]he industry has expressed concerns that Fannie Mae and Freddie Mac UMBS may not be truly fungible because differences in Fannie Mae and Freddie Mac policies could result in materially differing cash flows (as a result of, *e.g.*, differing prepayment speeds)." FHFA, as conservator, has previously responded to industry input by imposing alignment mandates on Fannie Mae and Freddie Mac, and publishing a Prepayment Monitoring Report. The proposed rule would codify FHFA's previous mandates, and is intended to ensure that Fannie Mae and Freddie Mac programs, policies and practices that individually have a material effect on cash flows (including policies that affect prepayment speeds) are aligned and will continue to be aligned. See "Mortgage Securitizations" for more information on the Single Security Initiative and "Risk Factors" for a discussion of the risks to our business associated with the new UMBS and the Single Security Initiative.

Charter Act and Regulation

Charter Act

Fannie Mae is a shareholder-owned corporation organized and existing under the Charter Act. 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.

Principal balance limitations. To meet these purposes, the Charter Act authorizes us to purchase and securitize mortgage loans secured by single-family and multifamily properties, subject to maximum original principal balance limits, known as "conforming loan limits" on single-family conventional mortgage loans that we purchase or securitize. The conforming loan limits are adjusted each year based on FHFA's housing price index. For 2018, the conforming loan limit for mortgages secured by one-family residences was set at $453,100, with higher limits for mortgages secured by two- to four-family residences and in four statutorily-designated states and territories (Alaska, Hawaii, Guam and the U.S. Virgin Islands). For 2019, FHFA increased the national conforming loan limit for one-family residences to $484,350. In addition, higher loan limits of up to 150% of the otherwise applicable loan limit apply in certain high-cost areas. 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").
The Charter Act also includes the following provisions:

- *Credit enhancement requirements.* The Charter Act generally requires credit enhancement on any single-family conventional mortgage loan that we purchase or securitize that has an 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 a mortgage loan that exceeds 80% of the property value; (2) a seller's agreement to repurchase or replace the loan in the event of default; or (3) retention by the seller of at least a 10% participation interest in the loan. 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 debt obligations.* At the discretion of the Secretary of the Treasury, Treasury may purchase our debt obligations up to a maximum of $2.25 billion outstanding at any one time.
- *Exemption for our securities offerings.* Our securities offerings are exempt from registration requirements under the federal securities laws. As a result, we do not file registration statements or prospectuses with the SEC with respect to our securities offerings. However, our equity securities are not treated as exempt securities for purposes of Sections 12, 13, 14 or 16 of the Securities Exchange Act of 1934 (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. Our non-equity securities are exempt securities under the Exchange Act.
- *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 or 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. We may purchase or securitize mortgage loans only on properties located in the United States and its territories.

GSE Act and Other Regulation

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 U.S. 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 and other legislation, including the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"). We also describe some regulations applicable to the mortgage industry and the securities markets that may indirectly affect us.

Capital

The GSE Act establishes minimum, risk-based, and critical capital standards for Fannie Mae and Freddie Mac, which we discuss in "Note 12, Regulatory Capital Requirements." However, FHFA has suspended these capital classifications because we are under conservatorship. Although existing statutory and regulatory capital requirements are not binding during conservatorship, we continue to submit capital reports to FHFA and FHFA monitors our capital levels. Moreover, with our 2017 implementation of the conservatorship capital framework and FHFA's 2018 proposal of new capital requirements, both discussed below, we are focused on managing our business in a manner consistent with the conservatorship capital framework and working with FHFA to adopt any new capital rule, when approved and applicable.

Conservatorship Capital Framework

In lieu of these statutory capital requirements, in 2017 FHFA directed Fannie Mae and Freddie Mac to implement an aligned risk measurement framework for evaluating Fannie Mae and Freddie Mac business decisions and performance during conservatorship. The framework includes specific requirements relating to risk on our book of business and modeled returns on our new acquisitions. We are required to submit quarterly reports to FHFA relating to the framework's requirements. We continuously review our business decisions as they relate to existing and prospective capital framework standards.

In December 2017 and February 2018, FHFA, in its capacity as conservator, provided guidance relating to our guaranty fee pricing for new single-family acquisitions. FHFA's guidance requires that we meet a specified minimum return on equity target based on the conservatorship capital framework. We implemented this target in the first quarter of 2018.

Proposed Capital Requirements

In June 2018, FHFA proposed new capital requirements for Fannie Mae and Freddie Mac, which would also be suspended while we remain in conservatorship. The proposed rule would implement a new framework for risk-based capital requirements and a revised minimum leverage capital requirement. The proposed risk-based capital framework would provide a granular assessment of credit risk specific to different mortgage loan categories, as well as components for market risk, operational risk, and a going-concern buffer. The proposed rule includes two alternative leverage ratio proposals on which FHFA sought feedback. FHFA received approximately 80 comments on the proposed capital rule, including a comment from us, addressing a broad range of issues prior to the closing of the comment period on November 16, 2018. Any final capital rule would have a significant impact on our business and profitability outside of conservatorship.

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. We published our most recent stress test results for the severely adverse scenario on our website in August 2018.

Portfolio Standards

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, Treasury Agreements and Housing Finance Reform—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 obtain 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. FHFA published an interim final rule implementing these provisions in July 2009, but concluded that permitting us to engage in new products was inconsistent with the goals of the conservatorship and instructed us not to submit new product requests under the rule.

Strategic Business Plan

In October 2018, FHFA amended the corporate governance regulation that applies to us to require our Board of Directors to adopt and have in effect at all times a strategic business plan that describes our strategy for achieving our mission and public purposes. The plan must articulate measurable goals for each significant activity, describe any significant changes to business strategy or approach we are planning to undertake, and identify current and emerging risks associated with our significant activities. Our Board of Directors must review the strategic business plan at least annually, re-adopt the plan at least every three years, establish management reporting requirements, and monitor the plan's implementation. See "Executive Summary—Our Strategic Objectives" for information about our strategic objectives.

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 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—GSE and Conservatorship Risk."

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. 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. We are prohibited from passing through the cost of these allocations to the originators of the mortgage loans that we purchase or securitize.

In December 2014, FHFA directed us to begin setting aside amounts for these contributions and to transfer the amounts set aside within 60 days after the end of each fiscal year, except for any fiscal year for which a draw from Treasury was made under the terms of the senior preferred stock purchase agreement or in which such transfer would cause such a draw. Our new business purchases were $512 billion for the year ended December 31, 2018. Accordingly, we recognized an expense of $215 million related to this obligation for the year ended December 31, 2018.

Executive Compensation

The amount of compensation we may pay our executives is subject to a number of legal and regulatory restrictions, particularly while we are in conservatorship. For example:

- *GSE Act*. The GSE Act directs FHFA to prohibit us from providing compensation to our executive officers that is not reasonable or comparable. 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.
- *STOCK Act.* 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 while the company remains in conservatorship.
- *Equity in Government Compensation Act.* The Equity in Government Compensation Act of 2015 caps the annual total direct compensation of our chief executive officer position at $600,000 while the company is in conservatorship or receivership.
- *Golden Parachute Reg*ulation. 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 or employee of the company during any period in which we are in conservatorship, receivership or other troubled condition, unless either a specific exemption applies or the Director of FHFA approves the payments. A golden parachute payment generally refers to a compensatory payment that is contingent on termination of employment.

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 Fannie Mae and Freddie Mac 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 and Pricing

Our guaranty fees and pricing are subject to regulatory and legislative requirements:

- In July 2016, FHFA in its regulatory capacity, established minimum base guaranty fees that generally apply to our acquisitions of 30-year and 15-year single-family fixed-rate loans in lender swap transactions. These minimum base guaranty fees were implemented in November 2016.
- 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.

In addition, as discussed in "Capital—Conservatorship Capital Framework," FHFA has established requirements for our guaranty fee pricing in its capacity as conservator.

Housing Goals

Our housing goals, which are established by FHFA in accordance with the GSE Act, require that a specified amount of mortgage loans we acquire meet requirements relating to affordability or location. For single-family goals, our acquisitions are measured against the lower of benchmarks set by FHFA or the level of goals-qualifying originations in the primary mortgage market. Multifamily goals are established as a number of units to be financed.

In December 2018, FHFA determined that we met all of our single-family and multifamily housing goals for 2017. The tables below display our housing goals for 2017 and 2018, as well as our 2017 performance against our goals.

Single-Family Housing Goals(1)

	2017			2018
	FHFA Benchmark	**Single-Family Market Level**	**Result**	**FHFA Benchmark**
Low-income (≤80% of area median income) families home purchases	24 %	24.3 %	25.5 %	**24 %**
Very low-income (≤50% of area median income) families home purchases	6	5.9	5.9	**6**
Low-income areas home purchases(2)	18	21.5	22.9	**18**
Low-income and high-minority areas home purchases(3)	14	17.1	18.3	**14**
Low-income families refinances	21	25.4	24.8	**21**

(1) The FHFA benchmarks and our results are expressed as a percentage of the total number of eligible single-family mortgages acquired during the period. The Single-Family Market level is the percentage of eligible single-family mortgages originated in the primary mortgage market.

(2) These mortgage loans must be secured by a property that is (a) in a low-income census tract, (b) in a high-minority census tract and affordable to moderate-income families (those with incomes less than or equal to 100% of area median income), or (c) in a designated disaster area and affordable to moderate-income families.

(3) These mortgage loans must be secured by a property that is (a) in a low-income census tract or (b) in a high-minority census tract and affordable to moderate-income families.

Multifamily Housing Goals

	2017 Goal	Result	2018 Goal
	(in units)		
Low-income families	300,000	401,145	**315,000**
Very low-income families	60,000	82,674	**60,000**
Small affordable multifamily properties(1)	10,000	12,043	**10,000**

(1) Small affordable multifamily properties are those with 5 to 50 units that are affordable to low-income families.

We will report our 2018 housing goals performance to FHFA in March 2019, and FHFA will make a final determination regarding our 2018 performance later in the year, after data regarding the share of goals-qualifying originations in the primary mortgage market, reported under the Home Mortgage Disclosure Act ("HMDA"), becomes available.

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 housing. 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. Our first underserved markets plans received non-objections from FHFA and were finalized and published in December 2017. The plans are effective for 2018 to 2020.

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 is 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 is 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 also is available for activities related to small 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 is 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.

As provided under the rule, FHFA adopted final evaluation guidance in November 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 plans. Our performance results will be reported to Congress annually. 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 that could require us to take additional steps.

Swap Transactions; Minimum Capital and Margin Requirements

As a result of the Dodd-Frank Act, we are required 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 rule is effective in two phases and each phase requires that we implement operational changes and changes relating to the collateral we collect and provide for swap transactions. We complied with the first phase of the rule that became effective in 2017. The second phase of the rule is scheduled to become effective in September 2020. This phase will require additional operational changes and changes to collateral requirements, which may increase the costs associated with hedging our retained mortgage portfolio.

Risk Retention

In 2014, an inter-agency body of regulators issued a final rule implementing the Dodd-Frank Act's 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 Consumer Financial Protection Bureau (the "CFPB") in connection with its ability-to-repay rule discussed below.

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 CFPB issued a final rule under Regulation Z that, among other 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 Fannie Mae and Freddie Mac 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.

In January 2019, the CFPB released a white paper reviewing the ability-to-repay rule. The paper did not contain any recommendations for regulatory changes but may be used to make changes in the future. We anticipate that the CFPB may take action on the temporary qualified mortgage rule in the next 12 months. Changes in this rule may affect, perhaps materially, the quality and quantity of loans available for delivery to us.

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. 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. It remains unclear 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.

Proposed Rule on Credit Score Models

The Economic Growth, Regulatory Relief, and Consumer Protection Act (the "Economic Growth Act") provides that, if we condition the purchase of a mortgage loan on a borrower's credit score, that credit score must be produced by a model that has been validated and approved by us based on the standards and criteria in the Economic Growth Act and FHFA regulations. The Economic Growth Act requires Fannie Mae and Freddie Mac to solicit applications for validation and approval of third party credit score models no later than December 20, 2018. On December 13, 2018, FHFA proposed a rule, as required by the Economic Growth Act, relating to the validation and approval of credit score models. Because it was not feasible to finalize FHFA's credit score models rule by December 20, 2018, FHFA directed Fannie Mae and Freddie Mac to delay soliciting applications for validation and approval of third party credit score models until the rule is finalized. Comments on the proposed rule are due by March 21, 2019.

Before passage in May 2018 of the Economic Growth Act, we had been assessing new credit score models pursuant to FHFA's 2018 conservatorship scorecard. In July 2018, FHFA announced it would not make a decision on the credit score models used by us and by Freddie Mac and instead would shift its focus to implementing the steps required under the Economic Growth Act.

Single-Counterparty Credit Limit

In June 2018, the Federal Reserve adopted a rule to restrict the counterparty credit exposure of very large banking organizations. Beginning in 2020, any bank holding company with $250 billion or more in total consolidated assets must limit

its exposure to any counterparty and its affiliates to no more than 25% of tier 1 capital, and any U.S. banking organization that is a global systemically important bank ("U.S. GSIB") must adhere to a stricter limit of 15% of tier 1 capital for exposures to any other U.S. GSIB or non-bank entity supervised by the Federal Reserve. Similarly, limits are set on counterparty credit exposures held by U.S. intermediate holding companies that are subsidiaries of foreign banking organizations. While Fannie Mae is in conservatorship, exposures involving claims on or directly and fully guaranteed by Fannie Mae are exempt from these restrictions and Fannie Mae MBS and debt can be used as collateral to reduce a banking organization's counterparty exposure. At this time, we do not know what impact, if any, this rule will have on our customers' business practices, or whether and to what extent this rule may adversely affect demand for or the liquidity of securities we issue.

The Future of LIBOR and Alternative Reference Rates

In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced its intention to stop persuading or compelling the group of major banks that sustains LIBOR to submit rate quotations after 2021. As a result, it is uncertain whether LIBOR will continue to be quoted after 2021. The Federal Reserve convened a group of private-market participants, known as the Alternative Reference Rate Committee (the "ARRC"), to identify a set of alternative U.S. dollar reference interest rates and an adoption plan for those alternative rates. In June 2017, the ARRC recommended an alternative reference rate referred to as the Secured Overnight Financing Rate ("SOFR") to be published by the Federal Reserve Bank of New York. In 2018, we became a voting member of the ARRC. We also participate on the majority of the ARRC's working groups. In support of the ARRC's efforts to develop SOFR as a key market index, in 2018 we issued the market's first SOFR securities, issuing a total of $11.0 billion in SOFR-indexed floating-rate corporate debt. We also entered into SOFR-indexed interest rate swaps and futures transactions to further support the development of this emerging index. At this time, we are unable to predict whether or when LIBOR will cease to be available or if SOFR will become the benchmark to replace LIBOR. Because we routinely engage in transactions involving financial instruments that reference LIBOR, these developments could have a material impact on us, borrowers, investors, and our customers and counterparties. See "Risk Factors—Market and Industry Risk" for a discussion of the risks to our results of operations, financial condition, liquidity and net worth posed by the potential phasing out of LIBOR.

Employees

As of January 31, 2019, we employed approximately 7,400 personnel, including full-time and part-time 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), or by writing to Fannie Mae, Attention: Fixed-Income Securities, 1100 15th Street, NW, Washington, DC 20005.

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, we and our senior management may from time to time make forward-looking statements in our other filings with the SEC, our other publicly available written statements and 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," "sho "could," "likely," "may," "will" or similar words. Examples of forward-looking statements in this report include, among others, statements relating to our expectations regarding the following matters:

- our future profitability, financial condition and results of operations, and the factors that will affect them;
- our business plans and strategies and the impact of such plans and strategies;
- our dividend payments to Treasury;
- our retained mortgage portfolio;
- our expectations regarding the implementation and our use of the common securitization platform and the implementation and impact of the Single Security Initiative, as well as our issuances of UMBS;

- our plans relating to and the effects of our credit risk transfer transactions;
- other factors that could affect or mitigate our credit risk exposure;
- our future capital requirements;
- our payments to HUD and Treasury funds under the GSE Act;
- the consequences of our conservatorship, any end or change to our conservatorship, and possible receivership;
- the impact of accounting guidance and accounting changes on our business or financial results, including the impact of impairment accounting guidance;
- the impact of the Federal Reserve's balance sheet normalization program;
- the impact of legislation and regulation on our business or financial results;
- mortgage market and economic conditions (including home price appreciation rates) and the impact of such conditions on our business or financial results;
- the risks to our business;
- our serious delinquency rate and the factors that will affect our serious delinquency rate;
- the performance of the loans in our book of business and factors that will affect such performance;
- our loan acquisitions and the credit risk profile of such acquisitions;
- factors that will affect our liquidity and ability to meet our debt obligations and factors relating to our liquidity contingency plans; and
- our response to legal and regulatory proceedings and their impact on our business or financial condition.

Forward-looking statements reflect our management's current 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 and that otherwise impact 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 our forward-looking statements, including, among others, 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;
- actions by FHFA, Treasury, HUD or other regulators that affect our business;
- changes in the structure and regulation of the financial services industry;
- the timing and level of, as well as regional variation in, home price changes;
- changes in interest rates and credit spreads;
- uncertainties relating to the potential phasing out of LIBOR, or other market changes that could impact the loans we own or guaranty or our MBS;
- credit availability;
- disruptions or instability in the housing and credit markets;
- growth, deterioration and the overall health and stability of the U.S. economy, including the U.S. gross domestic product ("GDP"), unemployment rates, personal income and other indicators thereof;
- changes in the fiscal and monetary policies of the Federal Reserve;
- our future guaranty fee pricing and the impact of that pricing on our competitive environment and guaranty fee revenues;
- the volume of mortgage originations;
- the size, composition and quality of our guaranty book of business and retained mortgage portfolio;
- the competitive landscape in which we operate, including the impact of legislative or other developments on levels of competition in our industry and other factors affecting 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;
- changes in the demand for Fannie Mae MBS, in general or from one or more major groups of investors;
- the conservatorship, including any changes to or termination (by receivership or otherwise) of 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 the Single Security Initiative;
- 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;
- significant changes in modification and foreclosure activity;
- the volume and pace of future nonperforming and reperforming 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 (the “FASB”), and changes to our accounting policies;
- changes in the fair value of our assets and liabilities;
- the stability and adequacy of the systems and infrastructure that impact our operations, including ours and those of our counterparties and other third parties on which our business relies;
- operational control weaknesses;
- our reliance on models and future updates we make to our models, including the assumptions used by these models;
- domestic and global political risks and uncertainties;
- natural disasters, environmental disasters, terrorist attacks, pandemics or other major disruptive events;
- cyber attacks or other information security breaches or threats; and
- the other factors described in “Risk Factors.”

Readers are cautioned not to unduly rely on the forward-looking statements we make and to place these forward-looking statements into proper context by carefully considering the factors discussed in “Risk Factors” 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—Key Market Economic Indicators,” “MD&A—Risk Management,” “MD&A—Single-Family Business” and “MD&A—Multifamily Business” 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 any forward-looking statements we make. We believe the risks described below and in the other sections of this report referenced above are the most significant we face; 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.

GSE and Conservatorship Risk

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.

We expect Congress, the Administration and FHFA to continue to consider housing finance reform, which 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. Officials in the Trump Administration have indicated that resolving the conservatorships of Fannie Mae and Freddie Mac is a priority and that the Administration intends to release a framework for housing finance reform in early 2019. Congress, FHFA or other agencies may also consider legislation, regulation or other administrative actions aimed at increasing the competition we face, reducing our market share, expanding our obligations to provide funds to Treasury, constraining our business operations, or subjecting us to new obligations that could impose substantial burdens or adversely affect our results of operations or financial condition. We cannot predict the timing or final content of housing finance reform legislation, other legislation, regulations or administrative actions related to our activities, nor can we predict the impact any such enacted legislation, regulation or administrative actions would have on our business and financial condition.

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 to avoid being placed into receivership.

The dividend provisions of the senior preferred stock permit us to retain only up to $3.0 billion as capital reserves, provided our conservator directs us to declare and pay senior preferred stock dividends in full in the future. As a result, we may not have sufficient capital reserves to avoid a net worth deficit if we have a comprehensive loss in a future 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 our derivatives and other financial instruments that we mark to market through our earnings. Other factors that may result in volatility in our quarterly financial results include developments that affect our loss reserves, such as redesignations of loans from HFI to HFS, changes in interest rates, home prices or accounting standards, or events such as natural disasters. 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 or regulatory actions could result in a net worth deficit in a future quarter.

In June 2016, the FASB issued guidance that changes the impairment model for most financial assets and certain other instruments. We refer to this guidance, ASU 2016-13, Financial Instruments—Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments, as the "Current Expected Credit Loss" standard, or as the "CECL standard." We will adopt the CECL standard on January 1, 2020. For loans, available-for-sale debt securities and other financial assets recorded at amortized cost, entities will be required to use a new forward-looking "expected loss" model that will replace today's "incurred loss" model and generally will result in the earlier recognition of expected credit losses. We are continuing to evaluate the impact of this guidance on our consolidated financial statements. We expect the greater impact of the guidance to relate to our accounting for credit losses for loans that are not individually impaired. The adoption of this guidance will likely decrease, perhaps substantially, our retained earnings and increase our allowance for credit losses, which could result in a net worth deficit when we adopt the guidance in the first quarter of 2020.

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 to avoid being placed into receivership. As of the date of this filing, the maximum amount of remaining funding under the agreement is $113.9 billion. If we were to draw additional funds from Treasury under the agreement with respect to 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 or if we have not been paying our debts as they become due, in either case, for a period of 60 days after the SEC filing deadline for any of our Form 10-Ks or Form 10-Qs. 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 MBS guaranty obligations, 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. In the event of a liquidation of our assets it is uncertain 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 the 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 and limitations on our executive and employee compensation 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 and limitations on executive and employee compensation 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. Turnover in key management positions and challenges in integrating new management could harm our ability to manage our business effectively and successfully implement 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 our 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 of our company under conservatorship. For example, we are subject to a law that limits the annual direct compensation payable to our chief executive officer to no more than $600,000 while we are in conservatorship or receivership, and a law that prohibits our senior executives from receiving bonuses during any period of conservatorship. Additionally, we are unable to offer equity-based compensation to our employees. 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.

Our inability to offer market-based compensation to our chief executive officer also makes succession planning for this position difficult. Our former Chief Executive Officer left the company in October 2018. We currently have an Interim Chief Executive Officer while our board of directors conducts a search for a successor. We believe the limit applicable to our chief executive officer compensation negatively affected our ability to retain our former Chief Executive Officer, and is also negatively affecting our ability to attract a successor 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. 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 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 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 are devoting significant resources to meeting FHFA's goals for our conservatorship and expect to continue to do so. 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. In addition, actions we take to meet FHFA's strategic goals and objectives for our conservatorship could adversely affect our financial results. FHFA has changed our business objectives significantly since we entered conservatorship, and could make additional changes at any time. On January 3, 2019 President Trump submitted the nomination of Mark Calabria to serve as Director of FHFA for a five-year term. On January 7, 2019, Joseph Otting, Comptroller of the Currency, became Acting Director of FHFA pending Senate confirmation of Mark Calabria's nomination. As we discuss in "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Conservatorship—Powers of the Conservator under the GSE Act," FHFA has broad powers when acting as our conservator and our business activities are significantly affected by the conservatorship. FHFA's actions as our primary regulator, including some of those discussed in "Business—Charter Act and Regulation—GSE Act and Other Regulation," may also significantly impact us. Accordingly, the changes in leadership at FHFA could result in significant changes to FHFA's goals for our conservatorship and could materially affect our results of operations and financial condition.

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 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 except 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; incur indebtedness that would result in our aggregate indebtedness exceeding $300.0 billion; or seek or permit the termination of our conservatorship (other than in connection with receivership). 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 amount of mortgage assets we are permitted to own reached a limit of $250.0 billion as of December 31, 2018. In addition, FHFA has directed that we further cap our mortgage assets at $225.0 billion.

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 16, Commitments and Contingencies" and "Legal Proceedings" for a description of these lawsuits. These lawsuits, and actions Treasury or FHFA may take in response to these lawsuits, could have a material impact on our business.

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—Conservatorship, Treasury Agreements and Housing Finance Reform—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 uniform mortgage-backed 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 take actions to support the housing and mortgage markets or 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. 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 are making changes to our business and our acquisitions to comply with our new duty to serve obligations, which went into effect on January 1, 2018. 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—Charter Act and Regulation—GSE Act and Other Regulation" for more information on our housing goals and duty to serve underserved markets.

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

The material adverse effects of the conservatorship and our agreements with Treasury include 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. 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 the $3.0 billion capital reserve amount. 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 (which includes any accumulated 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 was $123.8 billion as of December 31, 2018. The liquidation preference would increase further if we draw on Treasury's funding commitment with respect to any future quarters or if we do not pay dividends owed on the senior preferred stock. If we are liquidated, it is uncertain 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 the 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.

The senior preferred stock purchase agreement, senior preferred stock and warrant can only be canceled or modified with the consent of Treasury. For additional description of the conservatorship and our agreements with Treasury, see "Business—Conservatorship, Treasury Agreements and Housing Finance Reform."

The Single Security Initiative may adversely affect our financial results and contribute to declines in the liquidity or market value of our MBS. The Single Security Initiative also increases our counterparty credit risk and operational risk.

In 2014, FHFA directed Fannie Mae and Freddie Mac to develop a single common mortgage-backed security that will be fungible with then-outstanding Fannie Mae guaranteed mortgage pass-through certificates and that will be exchangeable by Freddie Mac for then-outstanding Freddie Mac PCs. FHFA's Single Security Initiative is intended to maximize liquidity for both Fannie Mae and Freddie Mac mortgage-backed securities in the TBA market. In March 2018, FHFA announced that Fannie Mae and Freddie Mac will start issuing UMBS in place of their current offerings of TBA-eligible mortgage-backed securities on June 3, 2019. The new UMBS will be issued by Fannie Mae and Freddie Mac through their joint venture, CSS, using a common securitization platform, or "CSP."

Historically, Fannie Mae MBS had a trading advantage over comparable Freddie Mac PCs. One of FHFA's stated objectives for the Single Security Initiative is to reduce the costs to Freddie Mac and taxpayers that result from differences in liquidity of Fannie Mae MBS and Freddie Mac PCs. In the last couple of years, as the implementation date of the Single Security Initiative has drawn closer, Fannie Mae MBS and comparable Freddie Mac PCs have been trading at or near parity. In addition to the loss of this trading advantage, uncertainty surrounding the implementation and overall impact of the Single Security Initiative could contribute to declines in the liquidity or market value of Fannie Mae MBS or otherwise adversely affect our financial condition or results of operations. The industry has expressed concerns that Fannie Mae and Freddie Mac UMBS may not be truly fungible. FHFA, as conservator, has previously responded to industry input by imposing alignment mandates on Fannie Mae and Freddie Mac, and, most recently, proposed a rule to align Fannie Mae and Freddie Mac programs, policies and practices that affect the prepayment rates of TBA-eligible MBS. If investors do not accept the fungibility of Fannie Mae and Freddie Mac UMBS, or if investors prefer Freddie Mac UMBS over Fannie Mae UMBS, it could have a significant adverse impact on our business, liquidity, financial condition, net worth and results of operations, and could adversely affect the liquidity or market value of Fannie Mae MBS. In addition, we may be required to take certain actions to assist with the transition to UMBS, including, but not limited to, utilizing our retained mortgage portfolio to buy, sell and finance the purchase of securities for the purpose of minimizing disruptions to the TBA market. Furthermore, if we are no longer in conservatorship, it is unclear whether we may continue to align our program, policies and practices with those of Freddie Mac in support of UMBS.

The Single Security Initiative will also result in increased credit exposure and operational exposure to Freddie Mac. Once the initiative is implemented, investors will be able to commingle Fannie Mae UMBS and Freddie Mac UMBS in resecuritizations. At this time, we do not know how much Freddie Mac UMBS we will ultimately guarantee as a result. When we resecuritize Freddie Mac UMBS, our guaranty of principal and interest would extend to the underlying Freddie Mac UMBS. In addition, and as a result of operational changes in connection with the Single Security Initiative, in the event Freddie Mac were to fail (for credit or operational reasons) to make a payment on a payment date on Freddie Mac UMBS that we resecuritized, we would be responsible for making the entire payment on the resecuritized Freddie Mac UMBS in order for that security to be paid, and for any of our outstanding Fannie Mae MBS to be paid on that payment date. We do not anticipate that our pricing will reflect any incremental credit, liquidity or operational risk associated with our guaranty of resecuritized Freddie Mac UMBS. As a result, we could be dependent on Freddie Mac and on the senior preferred stock purchase agreements that we and Freddie Mac each have with Treasury to avoid a liquidity event or a default under our guaranty.

Once we begin issuing UMBS, we plan to begin using CSS and the CSP to perform certain operational functions associated with issuing and managing MBS on our behalf. Accordingly, we will be reliant on CSS and the CSP for the operation of many of our securitization activities. Our business activities could be adversely affected and the market for Fannie Mae MBS could be disrupted if the CSP were to fail or otherwise become unavailable to us or if CSS were unable to perform its obligations to us. Any such failure or unavailability could have a significant adverse impact on our business, liquidity, financial condition, net worth and results of operations, and could adversely affect the liquidity or market value of our MBS. See "Our concurrent implementation of multiple new initiatives may increase our operational risk and result in one or more material weaknesses in our internal control over financial reporting" for a discussion of other operational risks associated with our implementation of the Single Security Initiative and related internal infrastructure upgrades.

We are limited in our ability to diversify our business and may be prohibited 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.

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. In addition, the market price of our common stock and preferred stock is subject to significant volatility, which may be due to other factors described in these “Risk Factors,” as well as speculation regarding our future, economic and political conditions generally, liquidity in the over-the-counter market in which our stock trades, and other factors, many of which are beyond our control. Such factors could cause the market price of our common stock and preferred stock to decline significantly, which may result in significant losses to holders of our common stock and preferred stock.

Credit Risk

We may incur significant credit losses and credit-related expenses on the loans in our 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 $3.3 trillion total 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. Increases in our credit-related expenses would reduce our earnings and adversely affect our financial condition and net worth.

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. For example, borrowers affected by the recent government shutdown, or a future shutdown, may find it difficult to make payments on their mortgage loans, in which case, we may experience credit losses and credit-related expenses caused by borrowers’ inability to make mortgage payments when due. 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, 2018, 7% of our single-family conventional guaranty book of business consisted of loans acquired prior to 2009 and another 11% 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, 2018 have certain characteristics that expose us to greater credit risk than other types of mortgage loans, such as Alt-A 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, 18% of our single-family conventional guaranty book of business as of December 31, 2018 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—Single-Family Business” and our multifamily guaranty book of business in “MD&A—Multifamily Business.” 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.

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 issued prior to the implementation of our CAS REMIC structure in November 2018. For a loan in a reference pool for a CAS issued between January 2016 and November 2018, a recovery is not recorded until after a loss has been confirmed. However, credit-related expenses related to these loans are currently recorded when it is probable that we have

incurred a loss, and upon our adoption of the CECL standard, will be recorded based on expected losses. In addition, 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. Similarly, mortgage insurance does not protect us from all losses on covered loans. For example, mortgage insurance does not cover us from default risk for properties that suffered damages that were not covered by the hazard insurance we require. A property damaged by a flood that was outside a flood hazard area, where we require coverage, or a property damaged by an earthquake are the most likely scenarios where property damage may result in a default not covered by hazard insurance.

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 rely on our institutional counterparties to provide services and credit enhancements that are critical to our business. 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 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, reinsurers and multifamily lenders with risk sharing arrangements; 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; the financial institutions that issue the investments, including overnight bank deposits, held in our other investments portfolio; and derivatives counterparties. We also have counterparty exposure to custodial depository institutions; mortgage originators, investors and dealers; debt security dealers; financial guarantors; 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 may also have multiple exposures to particular counterparties, as many of our counterparties perform several types of services for 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. 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. 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. 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 and manage risk.

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 financial obligations or to service the loans on our behalf.

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 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.

With respect to primary mortgage insurers that we have approved to write coverage on loans sold to us, we currently do not differentiate pricing based on counterparty strength or operational performance. Additionally, we would not revoke a primary mortgage insurer's status as an eligible insurer unless there was a material violation of our private mortgage insurer eligibility requirements. Further, we do not generally select the provider of primary mortgage insurance on a specific loan, because the selection is usually made by the lender at the time the loan is originated. Accordingly, we have limited ability to manage our concentration risk with respect to primary mortgage insurers.

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 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 72.5% of claims under its mortgage insurance policies in cash and is deferring the remaining 27.5%, 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 as well as interest on those obligations; however, RMIC remains in run-off. PMI, Triad and RMIC provided a combined $4.6 billion, or 3%, of our risk in force mortgage insurance coverage of our single-family guaranty book of business as of December 31, 2018.

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.

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 inventory. 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.

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 single-family and multifamily residential 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 severity and frequency of major disruptive events in certain geographic areas may also be impacted by climate change.

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 book of business, a major disruptive event, depending on its magnitude, scope and nature, could generate significant credit losses and credit-related expenses.

Operational Risk

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 that continuously and rapidly change and evolve. 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 and technology 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, paying agents, exchanges, clearinghouses or other financial intermediaries, including CSS, 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 Plano, Texas. As a result of this concentration of our employees and facilities, a major disruptive event at either location could impact our ability to operate notwithstanding the business continuity plans and facilities that we have in place, including our out-of-region data center for disaster recovery. Moreover, because of the concentration of our employees in the Washington, DC and Plano 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, the occurrence of a major disruptive event 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 and the use of the Internet and telecommunications technologies to conduct or automate financial transactions. There have been several recent, highly publicized cases involving financial services companies, consumer-based companies and other organizations reporting the unauthorized disclosure of client, customer or other confidential information, as well as cyber attacks involving the dissemination, theft and destruction of corporate information, intellectual property, cash or other valuable assets. There have also been several highly publicized cases where hackers have requested “ransom” payments in exchange for not disclosing stolen customer information or for not disabling the target company’s computer or other systems.

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, cyber attacks have not had a material impact on our financial condition, results or business; however, we could suffer material financial or other 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, the ongoing shortage of qualified cyber security professionals, and the interconnectivity and interdependence of third parties to our systems.

Despite our efforts to ensure the integrity of our software, computers, systems and information, we may not be able to anticipate, detect or recognize threats to our systems and assets, or to implement effective preventive measures against all cyber threats, especially because the techniques used are increasingly sophisticated, change frequently, are complex, and are often not recognized until launched. We routinely identify cyber threats as well as vulnerabilities in our systems and work to address them, but these efforts may be insufficient. Further, these efforts involve costs that can be significant as cyber attack methods continue to rapidly evolve. Cyber attacks can originate from a variety of sources, including external parties who are affiliated with foreign governments or are involved with organized crime or terrorist organizations. Third parties may also attempt to induce employees, customers or other users of our systems to disclose sensitive information or provide access to our systems or network, or to our data or that of our counterparties or borrowers, and these types of risks may be difficult to detect or prevent.

The occurrence of a cyber attack, breach, unauthorized access, misuse, computer virus or other malicious code or other cyber security 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.

A cyber attack could occur and persist for an extended period of time without detection. We expect that any investigation of a cyber attack would be inherently unpredictable and that it would take time before the completion of any investigation and before there is availability of full and reliable information. During such time we would not necessarily know the extent of the harm or how best to remediate it, and certain errors or actions could be repeated or compounded before they are discovered and remediated. In addition, announcing that a cyber attack has occurred increases the risk of additional cyber attacks, and preparing for this elevated risk can delay the announcement of a cyber attack. All or any of these challenges could further increase the costs and consequences of a cyber attack.

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.

Because we are interconnected with and dependent on third-party vendors, exchanges, clearing houses, fiscal and paying agents, and other financial intermediaries, including CSS, we could be adversely impacted if any of them is subject to a successful cyber attack or other information security event. For example, if a data breach compromises the integrity of borrower data that we or our customers rely on, it could adversely affect our operations or financial results. 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. We also share this type of information with regulatory agencies and their vendors. While we engage in actions to mitigate our exposure resulting from our information-sharing activities, 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.

We routinely transmit and receive personal, confidential and proprietary information by electronic means. We have discussed and worked with customers, vendors, service providers, counterparties and other third parties to develop secure transmission capabilities and protect against cyber attacks, but we do not have, and may be unable to put in place, secure capabilities with all of our clients, vendors, service providers, counterparties and other third parties and we may not be able to ensure that these third parties have appropriate controls in place to protect the confidentiality of the information. An interception, misuse or mishandling of personal, confidential or proprietary information being sent to or received from a customer, vendor, service provider, counterparty or other third party could result in legal liability, regulatory action and reputational harm.

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

We are currently implementing a number of initiatives in furtherance of both our and our conservator's strategic 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, for the past several years we have been working with Freddie Mac and CSS on the development of a common securitization platform that, starting in 2019, we expect to use to perform certain aspects of the securitization process. This initiative, in coordination with related internal infrastructure upgrades, has resulted in significant changes to our systems and operations, and continues to involve 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 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 implement additional initiatives in the future that could further increase our operational risk.

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.

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 management-level 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.

Liquidity and Funding Risk

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 our status as a government-sponsored enterprise) 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 government-sponsored enterprise 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 government-sponsored enterprise 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.

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 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 assets as collateral, we anticipate that a discount would be applied that would reduce the value assigned to those assets. Depending on market conditions at the time, this discount could result in proceeds significantly lower than the current market value of these assets and could thereby reduce the amount of financing we obtain, which could reduce our earnings and net worth.

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 require that we post additional collateral for 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, 2018, 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. As a result, if a future government shutdown or other event results in downgrades of the government’s credit rating, our credit ratings may be similarly downgraded. 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 also could cause derivatives clearing organizations or their members to demand that we post additional collateral for our derivative contracts. Our credit ratings and ratings outlook are included in “MD&A—Liquidity and Capital Management—Liquidity Management—Credit Ratings.”

Market and Industry Risk

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 changes in the economic environment. 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. 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 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.

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

Spread risk can result from 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. Changes in 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.

Uncertainty relating to the determination of LIBOR and the potential phasing out of LIBOR after 2021 may adversely affect our results of operations, financial condition, liquidity and net worth.

We routinely engage in transactions involving financial instruments, such as the purchase of loans, securities or derivatives indexed to LIBOR and the sale of LIBOR-indexed securities. In July 2017, the United Kingdom's Financial Conduct Authority, which regulates LIBOR, announced its intention to stop persuading or compelling the group of major banks that sustain LIBOR to submit rate quotations after 2021. As a result, it is uncertain whether LIBOR will continue to be quoted after 2021.

Efforts are underway to identify and transition to a set of alternative reference rates. The transition may lead to disruption, including yield volatility on LIBOR-based securities. In addition, our use of an alternative reference rate may be subject to judicial challenges. If LIBOR ceases or changes in a manner that causes regulators or market participants to question its viability, financial instruments indexed to LIBOR could experience disparate outcomes based on their contractual terms, ability to amend those terms, market or product type, legal or regulatory jurisdiction, and a host of other factors. There can be no assurance that legislative or regulatory actions will dictate what happens if LIBOR ceases or is no longer viable. In addition, while the ARRC was created to identify best practices for market participants regarding alternative interest rates, there can be no assurance that broadly adopted industry practices will develop. Divergent industry or market participant actions could result after LIBOR is no longer available or viable. It is uncertain what effect any divergent industry practices will have on the performance of financial instruments, including ones that we own or have issued. Additionally, if an alternative method or index to LIBOR is selected, there can be no assurance that the alternative method or index will yield the same or similar economic

results over the lives of the financial instruments. These developments could have a material impact on us, adjustable-rate mortgage borrowers, investors, and our customers and counterparties. This could result in losses, reputational damage, litigation or costs, or otherwise adversely affect our business, financial condition, liquidity, net worth or results of operations.

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. At this point in time, it remains unknown what impact, if any, the recent government shutdown will have on the U.S. economy. For example, it is possible that another government shutdown could significantly dampen homebuying activity and negatively impact home prices. In general, 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. 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. Currently, there is elevated uncertainty around several unresolved global political events, including the United Kingdom's exit from the European Union and ongoing international trade negotiations, that could impact 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, increasing interest rates, or recent changes in tax laws could lower our business volumes or otherwise adversely affect our results of operations, net worth and financial condition.

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. The Federal Reserve has raised the target range for the federal funds rate nine times between December 2015 and December 2018. In January 2019, the Federal Reserve stated that, in light of global economic and financial developments and muted inflation pressures, it will be patient as it determines what future adjustments to the target range for the federal funds rate may be appropriate. In determining the timing and size of future adjustments, it will assess realized and expected economic conditions relative to its employment and inflation objectives. This assessment will consider a wide range of information, including measures of labor market conditions, indicators of inflation pressures and inflation. 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.

The cap on mortgage interest deductions and other recent changes in tax laws may also adversely affect housing demand, home prices or other housing or mortgage market conditions, which could impact our business volumes and adversely affect our results of operations, net worth and financial condition.

The Federal Reserve's balance sheet normalization program 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. From October 2014 through September 2017, the Federal Reserve maintained a policy of reinvesting principal payments from its holdings of agency debt and agency mortgage-backed securities in agency mortgage-backed securities; therefore, it continued to purchase a significant amount of agency mortgage-backed securities. In October 2017, the Federal Reserve initiated a balance sheet normalization program. Under this program, the Federal Reserve's securities holdings will be gradually reduced by decreasing reinvestment of principal payments from those securities. In January 2019, the Federal Reserve revised its earlier guidance regarding conditions under which it could adjust the details of its balance sheet normalization program. It stated that it is prepared to adjust balance sheet normalization in light of economic and financial developments. We expect the Federal Reserve's balance sheet normalization program likely will result, in the longer term, in increases in mortgage interest rates and a widening of mortgage spreads, which could adversely affect our

business volume and reduce demand for Fannie Mae MBS. If this occurs, it could adversely affect our business, results of operations, financial condition, liquidity and net worth.

Legal, Regulatory and Other Risks

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 are periodically 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 government 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.

Regulatory changes in the financial services industry may negatively impact our business.

Changes in the regulation of the financial services industry are affecting and are expected to continue to affect many aspects of our business. Examples of 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 can acquire 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.

Changes to financial regulations could affect our business directly or indirectly if they affect our customers and counterparties. Changes in regulations applicable to U.S. banks could also affect our business, as U.S. banks purchase a large amount of our debt securities and MBS. New or revised liquidity or capital requirements applicable to U.S. banks could materially affect demand by those banks for our debt securities and MBS in the future.

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.

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, results of operations and cash flows. 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, results of operations and cash flows. 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 CECL standard, 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.

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 they 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 allowance for loan losses is so large, even a change that has a small impact relative to the size of this allowance 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.

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, liquidity 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.
- State laws and court decisions granting new or expanded priority rights over our mortgages to homeowners associations or through initiatives that provide a lien priority to loans used to finance energy efficiency or similar improvements, which could adversely affect our ability to recover our losses on affected loans.
- Legal challenges relating to MERSCORP Holdings, Inc. and the MERS® System (an electronic registry widely used to track servicing rights and ownership of loans in the United States), which could negatively affect our ability to use the MERS System and adversely affect our ability to enforce our rights with respect to the large portion of our loans that are registered and tracked in the MERS System. These challenges could result in court decisions that increase the costs and time it takes to record loans or foreclose on loans.

In addition, as described above, our business could be materially adversely affected by legislative and regulatory actions relating to housing finance reform or the financial services industry, or by legal or regulatory proceedings.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We own or lease six office facilities in the Washington, DC metropolitan area with a total square footage of approximately 2,770,000 square feet, including our principal office at 1100 15th St, NW, Washington, DC, which is leased.

We also lease approximately 448,000 square feet of office space in other regional locations in the United States, including in Plano, Texas.

We sold three Northern Virginia office facilities in September 2018. We currently occupy these three facilities pursuant to lease arrangements. We expect the total square footage we lease to decrease following the completion of upcoming office moves in Northern Virginia.

Item 3. Legal Proceedings

This item describes our material legal proceedings. We describe additional material legal proceedings in “Note 16, 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 we do not expect will have a material impact on our business or financial condition. However, litigation claims and proceedings of all types are subject to many factors that generally cannot be predicted accurately.

We establish an accrual for legal claims only when a loss is probable and we can reasonably estimate the amount of such loss. The actual costs of resolving legal claims may be substantially higher or lower than the amounts accrued for those claims. 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.

Senior Preferred Stock Purchase Agreements Litigation

Between June 2013 and August 2018, preferred and common stockholders of Fannie Mae and Freddie Mac filed lawsuits in multiple federal courts against one or more of the United States, Treasury and FHFA, challenging actions taken by the defendants relating to the Fannie Mae and Freddie Mac 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. Some of the lawsuits also challenge the constitutionality of FHFA's structure. The plaintiffs seek various forms of equitable and injunctive relief, including rescission of the August 2012 amendments, as well as damages. The cases that remain pending or were terminated after September 30, 2018 are as follows:

District of Columbia. Fannie Mae is a defendant in four cases pending in the U.S. District Court for the District of Columbia—a consolidated putative class action and three additional cases. On September 28, 2018, the court dismissed all of the plaintiffs' claims in three of these cases (including the consolidated class action), except for their claims for breach of an implied covenant of good faith and fair dealing. In the fourth case, which was filed on May 21, 2018, defendants filed a motion to dismiss the case on July 12, 2018. All four cases are described in "Note 16, Commitments and Contingencies."

Southern District of Texas. On October 20, 2016, preferred and common stockholders filed a complaint against FHFA and Treasury in the U.S. District Court for the Southern District of Texas. On May 22, 2017, the court dismissed the case. On July 16, 2018, the U.S Court of Appeals for the Fifth Circuit affirmed the dismissal, and on November 15, 2018 the Fifth Circuit granted plaintiffs' and FHFA's petitions for rehearing *en banc*.

Western District of Michigan. On June 1, 2017, preferred and common stockholders of Fannie Mae and Freddie Mac filed a complaint for declaratory and injunctive relief against FHFA and Treasury in the U.S. District Court for the Western District of Michigan. FHFA and Treasury moved to dismiss the case on September 8, 2017, and plaintiffs filed a motion for summary judgment on October 6, 2017.

District of Minnesota. On June 22, 2017, preferred and common stockholders of Fannie Mae and Freddie Mac filed a complaint for declaratory and injunctive relief against FHFA and Treasury in the U.S. District Court for the District of Minnesota. The court dismissed the case on July 6, 2018, and plaintiffs filed a notice of appeal with the U.S. Court of Appeals for the Eighth Circuit on July 10, 2018.

Eastern District of Pennsylvania. On August 16, 2018, common stockholders of Fannie Mae and Freddie Mac filed a complaint for declaratory and injunctive relief against FHFA and Treasury in the U.S. District Court for the Eastern District of Pennsylvania. FHFA and Treasury moved to dismiss the case on November 16, 2018, and plaintiffs filed a motion for summary judgment on December 21, 2018.

U.S. Court of Federal Claims. Numerous cases are pending against the United States in the U.S. Court of Federal Claims. Fannie Mae is a nominal defendant in three of these cases: *Fisher v. United States of America*, filed on December 2, 2013; *Rafter v. United States of America*, filed on August 14, 2014; and *Perry Capital LLC v. United States of America*, filed on August 15, 2018. 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 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* and *Perry Capital* plaintiffs are pursing the claim both derivatively and directly against the United States. Plaintiffs in *Rafter* also allege direct and derivative breach of contract claims against the government. The *Perry Capital* plaintiffs allege similar breach of contract claims, as well as breach of fiduciary duty claims against the government. Plaintiffs in *Fisher* request just compensation to Fannie Mae in an unspecified amount. Plaintiffs in *Rafter* and *Perry Capital* seek just compensation for themselves on their direct claims and payment of damages to Fannie Mae on their derivative claims. The United States filed a motion to dismiss the *Fisher* and *Rafter* cases on August 1, 2018.

District of Delaware. Fannie Mae is a nominal defendant in *Jacobs v. FHFA*, filed on August 17, 2015 against FHFA and Treasury in the U.S. District Court for the District of Delaware. 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. Plaintiffs are pursuing this claim derivatively on behalf of Fannie Mae and directly against the government. The court dismissed the case on November 27, 2017, and plaintiffs filed a notice of appeal with the U.S. Court of Appeals for the Third Circuit on December 22, 2017. On November 14, 2018, the U.S. Court of Appeals for the Third Circuit affirmed the district court's dismissal.

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. ("Rabobank"), 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, which the court granted in part and denied in part on August 4, 2015. The court ruled that Fannie Mae had adequately pled fraud, breach of contract and unjust enrichment claims against most defendants, but that the applicable statute of limitations periods precluded some contract and unjust enrichment claims from proceeding. The court dismissed the BBA, Rabobank, and Credit Suisse Group AG from the lawsuit on personal jurisdiction grounds.

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

Common Stock

Our common stock is traded in the over-the-counter market and quoted on the OTCQB, operated by OTC Markets Group Inc., under the ticker symbol "FNMA." Over-the-counter market quotations for our common stock reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions. The transfer agent and registrar for our common stock is Computershare Trust Company, N.A., and its address is P.O. Box 50500, Louisville, KY 40233 or, for overnight correspondence, 462 South 4th Street, Suite 1600, Louisville, KY 40202.

Holders

As of January 31, 2019, we had approximately 9,000 registered holders of record of our common stock. In addition, as of January 31, 2019, 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.

Equity Compensation Plan Information

As of December 31, 2018, we had no outstanding options, warrants or rights under any equity compensation plan. Although we have a legacy equity compensation plan that was previously approved by shareholders, our 1985 Employee Stock Purchase Plan, we do not anticipate issuing additional shares under that plan. Moreover, we are prohibited from issuing any stock or other equity securities as compensation without the approval of FHFA and the prior written consent of Treasury under the senior preferred stock purchase agreement.

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, 2018, we did not sell 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 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.

Our Purchases of Equity Securities

We did not repurchase any of our equity securities during the fourth quarter of 2018.

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, 2018, as well as selected consolidated balance sheet data as of the end of each year within this five-year period. Our results of operations for any one period are not necessarily indicative of the results to be expected in any other period. This data should be reviewed in conjunction with the audited consolidated financial statements and related notes, "MD&A" and "Risk Factors."

	For the Year Ended December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Statement of operations data:					
Net revenues[1]	**$21,930**	$22,960	$22,261	$22,757	$25,855
Net income attributable to Fannie Mae	**15,959**	2,463	12,313	10,954	14,208
New business purchase data:					
New business purchases[2]	**$512,023**	$569,616	$637,425	$515,541	$409,834
Performance ratios:					
Net interest yield[3]	**0.63 %**	0.64 %	0.67 %	0.68 %	0.63 %
Credit (income) loss ratio (in basis points):[4]					
Single-family	**8.5 bps**	10.2 bps	11.6 bps	35.8 bps	18.3 bps
Multifamily	**0.6**	(0.7)	(0.2)	(2.7)	(0.3)

	As of December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Balance sheet data:					
Investments in securities	**$45,296**	$39,522	$48,925	$60,138	$62,158
Mortgage loans, net of allowance	**3,249,395**	3,178,525	3,079,753	3,019,644	3,019,494
Total assets	**3,418,318**	3,345,529	3,287,968	3,221,917	3,248,176
Short-term debt	**24,896**	33,756	35,579	71,950	106,572
Long-term debt	**3,367,024**	3,296,298	3,226,737	3,125,721	3,115,583
Total liabilities	**3,412,078**	3,349,215	3,281,897	3,217,858	3,244,456
Senior preferred stock	**120,836**	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 (deficit)	**6,240**	(3,686)	6,071	4,030	3,680
Net worth surplus (deficit)	**6,240**	(3,686)	6,071	4,059	3,720

	As of December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Book of business data:					
Guaranty book of business[5]	**$3,269,152**	$3,211,858	$3,134,005	$3,076,556	$3,089,174
Credit quality:					
Total troubled debt restructurings on accrual status	**$98,375**	$110,130	$127,494	$140,964	$145,294
Total nonaccrual loans[6]	**32,150**	47,369	44,450	49,412	64,959
Loss reserves[7]	**(14,252)**	(19,400)	(23,835)	(28,590)	(36,787)
Loss reserves as a percentage of guaranty book of business:					
Single-family	**0.49 %**	0.65 %	0.83 %	1.00 %	1.28 %
Multifamily	**0.08**	0.09	0.08	0.12	0.20

(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 divided by the average guaranty book of business during the period, expressed in basis points.

(5) Refers to the sum of the unpaid principal balance of: (a) Fannie Mae MBS outstanding; (b) mortgage loans of Fannie Mae; and (c) other credit enhancements that we provide on mortgage assets. It excludes non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

(6) Total amounts based on recorded investment of nonaccrual loans. 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.

(7) Consists of our allowance for loan losses and reserve for guaranty losses.

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, 2018 and related notes to the consolidated financial statements.

Key Market Economic Indicators

Below we discuss how certain macroeconomic conditions can significantly influence our business and financial results.

Interest Rates

Selected Benchmark Interest Rates[1]
(As of period end)

3-month LIBOR   2-year swap rate   10-year swap rate

10-year Treasury rate   30-year Fannie Mae MBS par coupon rate

(1) According to Bloomberg.

How Interest Rates Can Affect Our Financial Results

- *Net interest income*. In a rising interest rate environment, our mortgage loans tend to prepay more slowly, which typically results in lower net amortization income from cost basis adjustments on mortgage loans and related debt. Conversely, in a declining interest rate environment, our mortgage loans tend to prepay faster, resulting in higher net amortization income from cost basis adjustments on mortgage loans and related debt.
- *Fair value gains (losses)*. We have exposure to fair value gains and losses resulting from changes in interest rates, primarily through our risk management derivatives and mortgage commitment derivatives, which we mark to market. Generally, we experience fair value losses when swap rates decrease and fair value gains when swap rates increase; however, because the composition of our derivative position varies across the yield curve, different yield curve changes (*e.g.*, parallel, steepening or flattening) will generate different gains and losses.
- *Credit-related income (expense).* Increases in mortgage interest rates tend to lengthen the expected lives of our modified loans, which increases the impairment on these loans and results in increases in the provision for credit losses. Conversely, decreases in mortgage interest rates tend to shorten the expected lives of our modified loans, which reduces the impairment on these loans and results in decreases in the provision for credit losses.

Housing and Mortgage Market

Home Prices

We expect home prices on a national basis to continue to grow in 2019, but at a more moderate pace than in 2018. If the government partially shuts down again and it significantly dampens homebuying activity in the second quarter, home prices will be negatively impacted. We also expect significant regional variation in the timing and rate of home price growth.

How home prices can affect our financial results

- Actual and forecasted home prices impact our provision or benefit for credit losses.
- Changes in home prices affect the amount of equity that borrowers have in their homes. Borrowers with less equity typically have higher delinquency and default rates.
- As home prices increase, the severity of losses we incur on defaulted loans that we hold or guarantee decreases because the amount we can recover from the properties securing the loans increases. Decreases in home prices increase the losses we incur on defaulted loans.

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

Housing Activity

Overall Housing Activity

Overall housing activity was mixed in 2018 compared with 2017. Single-family housing starts, which account for the largest share of residential construction activity, increased 3.6% to a rate of 879,000 units through November 2018, whereas multifamily housing starts increased 8.7%. Total existing home sales of 5.3 million units in 2018 represent a decrease of 3.1% from 2017, compared with a 1.1% increase in 2017 from 2016, according to data from the National Association of REALTORS®. Sales of foreclosed homes and preforeclosure, or “short sales,” (together, “distressed sales”) accounted for 2% of existing home sales in December 2018, compared with 5% in December 2017.

(1) According to U.S. Census Bureau and subject to revision. Data for 2018 are average seasonally adjusted annualized rates through November 2018, the most recent period for which data are available.

How housing activity can affect our financial results

- Homebuilding has typically been a leading indicator of broader economic indicators, such as GDP and the unemployment rate. Residential construction activity tends to soften prior to a weakness in the broader economy and can improve prior to a recovery in broader economic activity. Broader economic indicators can affect several mortgage market factors including the demand for both single-family and multifamily housing and the level of loan delinquencies.

- Fewer housing starts results in fewer properties being available for purchase, which can lower the volume of originations in the mortgage market.
- Construction activity can also contribute to credit losses. When the pace of construction does not meet demand, the resulting growth in home prices can increase the risk profile of new purchase money mortgage loans and increase the risk of default if home prices subsequently decline. Reduced construction may also coincide with a broader deterioration in housing conditions, which may result in higher future delinquencies and greater losses on defaulted loans.

GDP, Unemployment Rate and Personal Income

(1) According to the U.S. Bureau of Labor Statistics and subject to revision.

(2) Personal income growth through the third quarter of 2018 is the quarterly average of the monthly series calculated by the Federal Reserve Bank of St. Louis. Growth in the fourth quarter of 2018 is an internal estimate, based on data through November 2018, the most recent data available.

(3) According to the U.S. Bureau of Economic Analysis and subject to revision. GDP growth reported for the fourth quarter of 2018 is based on Fannie Mae's January 2019 forecast.

According to the U.S. Bureau of Labor Statistics as of January 2019, the economy created an estimated 2.7 million non-farm jobs in 2018 and 2.3 million non-farm jobs in 2017. In January 2019, non-farm payrolls increased by 304,000 jobs. 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 7.6% in December 2018 from 8.1% in December 2017.

At this point, it remains unknown what impact, if any, the recent government shutdown will have on broad economic activity, including GDP and labor market conditions.

How GDP, the unemployment rate and personal income can affect our financial results

- Changes in GDP, the unemployment rate and personal income can affect several mortgage market factors, including the demand for both single-family and multifamily housing and the level of loan delinquencies.
- Decreases in the unemployment rate typically result in lower levels of delinquencies, which often correlate to a decrease in credit losses.
- Slower growth or outright declines in personal income heightens the risk of delinquency by reducing homeowners' ability to pay their mortgages. Slower income growth could also lower affordability, constraining home sales and mortgage originations.

Consolidated Results of Operations

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

Summary of Consolidated Results of Operations

	For the Year Ended December 31,			Variance	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(Dollars in millions)				
Net interest income	**$20,951**	$20,733	$21,295	$218	$(562)
Fee and other income	**979**	2,227	966	(1,248)	1,261
Net revenues	**21,930**	22,960	22,261	(1,030)	699
Investment gains, net	**952**	1,522	1,256	(570)	266
Fair value gains (losses), net	**1,121**	(1,211)	(1,081)	2,332	(130)
Administrative expenses	**(3,059)**	(2,737)	(2,741)	(322)	4
Credit-related income:					
Benefit for credit losses	**3,309**	2,041	2,155	1,268	(114)
Foreclosed property expense	**(617)**	(521)	(644)	(96)	123
Total credit-related income	**2,692**	1,520	1,511	1,172	9
TCCA fees	**(2,284)**	(2,096)	(1,845)	(188)	(251)
Other expenses, net	**(1,253)**	(1,511)	(1,028)	258	(483)
Income before federal income taxes	**20,099**	18,447	18,333	1,652	114
Provision for federal income taxes	**(4,140)**	(15,984)	(6,020)	11,844	(9,964)
Net income	**$15,959**	$2,463	$12,313	$13,496	$(9,850)
Total comprehensive income	**$15,611**	$2,257	$11,665	$13,354	$(9,408)

Net Interest Income

We have two primary sources of net interest income:

- guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties; and
- the difference between interest income earned on the assets in our retained mortgage portfolio and our other investments portfolio (collectively, our "portfolios") and the interest expense associated with the debt that funds those assets. See "Retained Mortgage Portfolio" and "Liquidity and Capital Management—Liquidity Management—Other Investments Portfolio" for more information about our portfolios.

Guaranty fees consist of two primary components:

- base guaranty fees that we receive over the life of the loan; and
- 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 into net interest income as cost basis adjustments over the contractual life of the loan. We refer to this as amortization income.

We recognize almost all of our guaranty fee revenue in net interest income because we consolidate the substantial majority of loans underlying our Fannie Mae MBS in consolidated trusts on our consolidated balance sheets. 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.

The table below displays the components of our net interest income from our portfolios and our guaranty book of business.

Components of Net Interest Income

	For the Year Ended December 31,			Variance	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(Dollars in millions)				
Net interest income from portfolios(1)	**$4,426**	$4,340	$5,475	$86	$(1,135)
Net interest income from guaranty book of business:					
Base guaranty fee income, net of TCCA	**8,615**	8,139	7,495	476	644
Base guaranty fee income related to TCCA(2)	**2,284**	2,096	1,845	188	251
Net amortization income	**5,626**	6,158	6,480	(532)	(322)
Total net interest income from guaranty book of business	**16,525**	16,393	15,820	132	573
Total net interest income	**$20,951**	$20,733	$21,295	$218	$(562)

(1) Includes interest income from assets held in our retained mortgage portfolio and our other investments portfolio, as well as other assets used to generate lender liquidity. Also includes interest expense on our outstanding Connecticut Avenue Securities® of $1.4 billion, $1.0 billion and $617 million in 2018, 2017 and 2016, respectively.

(2) Revenues generated by the 10 basis point guaranty fee increase we implemented pursuant to the TCCA, the incremental revenue from which is remitted to Treasury and not retained by us.

Net interest income from portfolios:

- Increased in 2018 compared with 2017 due to an increase in income from our other investments portfolio, primarily due to higher interest rates in 2018 compared with 2017.
- Decreased in 2017 compared with 2016 primarily due to a decline in net interest income from our retained mortgage portfolio due to a decline in the average balance of this portfolio as we continued to reduce it. See "Retained Mortgage Portfolio" for more information.

Net interest income from base guaranty fees increased in 2018 compared with 2017 and in 2017 compared with 2016 due to:

- An increase in the size of our guaranty book of business and loans with higher base guaranty fees comprising a larger part of our guaranty book of business in 2018 than in 2017 and in 2017 than in 2016.

Net amortization income from our guaranty book of business decreased in 2018 compared with 2017 and in 2017 compared with 2016 due to:

- Higher interest rates in 2018 compared with 2017 and in 2017 compared with 2016, which caused loan prepayments to slow down, resulting in lower amortization of cost basis adjustments on mortgage loans of consolidated trusts and related debt.

We initially recognize mortgage loans and debt of consolidated trusts in our consolidated balance sheet at fair value. We recognize the difference between the initial fair value and the carrying value of these instruments as cost basis adjustments, either as premiums or discounts, in our consolidated balance sheet. We amortize these cost basis adjustments as yield adjustments over the contractual lives of the loans or debt**.** On a net basis, for mortgage loans and debt of consolidated trusts, we are in a premium position with respect to debt of consolidated trusts, which represents deferred income we will recognize in our consolidated statements of operations and comprehensive income as amortization income in future periods.

Deferred Income Represented by Net Premium Position on Debt of Consolidated Trusts (Dollars in billions)

The timing of when we recognize amortization income can vary based on a number of factors, the most significant of which is interest rates. In a rising interest rate environment, our mortgage loans tend to prepay more slowly, which typically results in lower net amortization income. Conversely, in a declining interest rate environment, our mortgage loans tend to prepay faster, resulting in higher net amortization income.

A rising interest rate environment and possible decreases in our retained mortgage portfolio could result in a decrease in our net interest income in 2019.

Analysis of Net Interest Income

The table below displays an analysis of our net interest income, average balances, and related yields earned on assets and incurred on liabilities. 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.

Analysis of Net Interest Income and Yield

	For the Year Ended December 31,								
	2018			2017			2016		
	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	**$149,878**	**$6,641**	**4.43 %**	$186,216	$7,726	4.15 %	$228,786	$9,376	4.10 %
Mortgage loans of consolidated trusts	**3,083,060**	**107,964**	**3.50**	2,966,541	100,593	3.39	2,838,453	95,266	3.36
Total mortgage loans[1]	**3,232,938**	**114,605**	**3.54**	3,152,757	108,319	3.44	3,067,239	104,642	3.41
Mortgage-related securities	**10,744**	**440**	**4.10**	12,984	450	3.47	21,430	875	4.08
Non-mortgage-related securities[2]	**55,809**	**1,126**	**1.99**	55,778	591	1.06	54,355	261	0.48
Federal funds sold and securities purchased under agreements to resell or similar arrangements	**37,338**	**742**	**1.96**	37,369	373	1.00	27,917	141	0.51
Advances to lenders	**4,102**	**136**	**3.27**	4,506	123	2.73	4,583	102	2.23
Total interest-earning assets	**$3,340,931**	**$117,049**	**3.50 %**	$3,263,394	$109,856	3.37 %	$3,175,524	$106,021	3.34 %
Interest-bearing liabilities:									
Short-term funding debt	**$25,835**	**$(464)**	**1.77 %**	$29,651	$(246)	0.83 %	$51,270	$(202)	0.39 %
Long-term funding debt	**200,478**	**(4,557)**	**2.27**	253,138	(5,287)	2.09	292,165	(6,329)	2.17
Connecticut Avenue Securities® ("CAS")	**24,247**	**(1,391)**	**5.74**	19,631	(1,006)	5.12	13,780	(617)	4.48
Total debt of Fannie Mae	**250,560**	**(6,412)**	**2.56**	302,420	(6,539)	2.16	357,215	(7,148)	2.00
Debt securities of consolidated trusts held by third parties	**3,084,846**	**(89,686)**	**2.91**	2,969,238	(82,584)	2.78	2,835,233	(77,578)	2.74
Total interest-bearing liabilities	**$3,335,406**	**$(96,098)**	**2.88 %**	$3,271,658	$(89,123)	2.72 %	$3,192,448	$(84,726)	2.65 %
Net interest income/net interest yield		**$20,951**	**0.63 %**		$20,733	0.64 %		$21,295	0.67 %

(1) Average balance includes mortgage loans on nonaccrual status. A single-family loan is placed on nonaccrual status when the payment of principal or interest on the loan is 60 days or more past due. A multifamily loan is placed on nonaccrual status when the loan becomes 90 days or more past due according to its contractual terms or is deemed individually impaired. Typically, interest income on nonaccrual mortgage loans is recognized when cash is received. Interest income not recognized for loans on nonaccrual status was $466 million, $942 million and $1.3 billion for the years ended December 31, 2018, 2017 and 2016, respectively.

(2) Includes cash equivalents.

The table below 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.

Rate/Volume Analysis of Changes in Net Interest Income

	2018 vs. 2017			2017 vs. 2016		
	Total Variance	Variance Due to:[1]		Total Variance	Variance Due to:[1]	
		Volume	Rate		Volume	Rate
	(Dollars in millions)					
Interest income:						
Mortgage loans of Fannie Mae	**$(1,085)**	**$(1,584)**	**$499**	$(1,650)	$(1,765)	$115
Mortgage loans of consolidated trusts	**7,371**	**4,022**	**3,349**	5,327	4,335	992
Total mortgage loans	**6,286**	**2,438**	**3,848**	3,677	2,570	1,107
Mortgage-related securities	**(10)**	**(86)**	**76**	(425)	(315)	(110)
Non-mortgage-related securities[2]	**535**	**—**	**535**	330	7	323
Federal funds sold and securities purchased under agreements to resell or similar arrangements	**369**	**—**	**369**	232	60	172
Advances to lenders	**13**	**(12)**	**25**	21	(2)	23
Total interest income	**$7,193**	**$2,340**	**$4,853**	$3,835	$2,320	$1,515
Interest expense:						
Short-term funding debt	**$(218)**	**$35**	**$(253)**	$(44)	$111	$(155)
Long-term funding debt	**730**	**1,168**	**(438)**	1,042	822	220
CAS debt	**(385)**	**(255)**	**(130)**	(389)	(290)	(99)
Total debt of Fannie Mae	**127**	**948**	**(821)**	609	643	(34)
Debt securities of consolidated trusts held by third parties	**(7,102)**	**(3,295)**	**(3,807)**	(5,006)	(3,790)	(1,216)
Total interest expense	**$(6,975)**	**$(2,347)**	**$(4,628)**	$(4,397)	$(3,147)	$(1,250)
Net interest income	**$218**	**$(7)**	**$225**	$(562)	$(827)	$265

(1) Combined rate/volume variances are allocated between rate and volume based on the relative size of each variance.

(2) Includes cash equivalents.

Fee and Other Income

Fee and other income includes transaction fees, multifamily fees and other miscellaneous income. Fee and other income decreased in 2018 compared with 2017, and increased in 2017 compared with 2016, primarily due to $975 million of income in 2017 resulting from a settlement agreement resolving legal claims related to private-label securities we purchased.

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 decreased during 2018 compared with 2017 primarily due to lower gains from the sale of HFS loans driven by a decline in average sales prices.

Investment gains, net were higher in 2017 compared with 2016 due to higher gains from the sale of HFS loans driven primarily by overall higher sales volumes.

Fair Value Gains (Losses), Net

The estimated fair value of our derivatives, trading securities and other financial instruments carried at fair value 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. While the estimated fair value of our derivatives that

serve to mitigate certain risk exposures may fluctuate, some of the financial instruments that generate these exposures are not recorded at fair value in our consolidated financial statements.

The table below displays the components of our fair value gains and losses.

Fair Value Gains (Losses), Net

	For the Year Ended December 31,		
	2018	**2017**	**2016**
	(Dollars in millions)		
Risk management derivatives fair value gains (losses) attributable to:			
Net contractual interest expense accruals on interest rate swaps	**$(1,061)**	$(889)	$(1,125)
Net change in fair value during the period	**1,133**	316	(4)
Total risk management derivatives fair value gains (losses), net	**72**	(573)	(1,129)
Mortgage commitment derivatives fair value gains (losses), net	**324**	(603)	288
Credit enhancement derivatives fair value gains, net	**26**	(9)	6
Total derivatives fair value gains (losses), net	**422**	(1,185)	(835)
Trading securities gains, net	**126**	190	28
CAS debt fair value gains (losses), net	**208**	(297)	(645)
Other, net[1]	**365**	81	371
Fair value gains (losses), net	**$1,121**	$(1,211)	$(1,081)

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

Risk Management Derivatives Fair Value Gains (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 8, Derivative Instruments."

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

- *Changes in interest rates*: Our primary derivative instruments are interest-rate swaps, including pay-fixed and receive-fixed interest-rate swaps. 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 (that is, parallel, steepening or flattening) will generate different gains and losses.
- *Changes in our derivative activity*: The mix and balance of our derivative portfolio changes from period to period as we enter into or terminate derivative instruments to respond to changes in interest rates and changes in the balances and modeled characteristics of our assets and liabilities. Changes in the composition of our derivative portfolio affect the derivative fair value gains and losses we recognize in a given period.

Additional factors that affect the fair value of our risk management derivatives include implied interest rate volatility and the time value of purchased or sold options, among other factors.

We recognized total risk management derivatives fair value gains in 2018 primarily as a result of an increase in the fair value of our interest rate swaps due to an increase in interest rates during the year. These gains were partially offset by interest expense accruals on interest rate swaps in 2018.

We recognized total risk management derivatives fair value losses in 2017 primarily as a result of interest expense accruals on interest rate swaps. These losses were partially offset by an increase in the fair value of our interest rate swaps in 2017 due to movements in swap rates during the year.

We recognized total risk management derivatives fair value losses for 2016 primarily as a result of a decrease in the total 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 offset by an increase in the total 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.

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 the table above. We are actively considering electing a hedge accounting program in the future to reduce volatility in “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income. 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 2018 primarily due to gains on commitments to sell mortgage-related securities driven by decreases in prices as interest rates increased during most commitment periods throughout 2018.

We recognized fair value losses on our mortgage commitments in 2017 primarily due to losses on commitments to sell mortgage-related securities driven by an increase in prices as interest rates declined during most commitment periods throughout 2017.

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.

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. CAS debt issued subsequent to 2016 is not accounted for in a manner that generates fair value gains and losses.

We recognized fair value gains on CAS debt reported at fair value in 2018 primarily due to widening spreads between CAS yields and LIBOR.

We recognized fair value losses on CAS debt reported at fair value in 2017 and 2016 primarily due to tightening spreads between CAS yields and LIBOR.

For further discussion of our credit risk transfer transactions, see “Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions.”

Administrative Expenses

Administrative expenses include salaries and employee benefits, professional services, occupancy and other miscellaneous expenses. Administrative expenses increased in 2018 compared with 2017, primarily due to an increase in professional services expense in support of our business resiliency activities and additional severance costs.

Administrative expenses in 2017 were flat compared with 2016.

Credit-Related Income (Expense)

Credit-related income or expense consists of our benefit or provision for credit losses and foreclosed property income or expense. We record a provision for credit losses and establish loss reserves for losses that we believe have been incurred and will eventually be realized over time in our consolidated financial statements. Our loss reserves, which include our allowance for loan losses and reserve for guaranty losses, provide for an estimate of credit losses incurred in our guaranty book of business, including concessions we granted borrowers upon modification of their loans. When we reduce our loss reserves, we recognize a benefit for credit losses.

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 overall size of our allowance, events such as natural disasters, the types and volume of our loss mitigation activities, the volume of foreclosures completed, and redesignations of loans from HFI to HFS. In addition, our credit-related income or expense and our loss reserves can be impacted by updates to the models, assumptions and data used in determining our allowance for loan losses.

While the redesignation of certain reperforming and nonperforming single-family loans from HFI to HFS has been a significant driver of credit-related income in recent periods, we may see a reduced impact from this activity in the future to the extent the population of loans we are considering for redesignation declines. Further, our implementation of the CECL standard on January 1, 2020 may introduce volatility in our results thereafter as credit-related income or expense will include expected lifetime losses and thus become more sensitive to fluctuations in the factors detailed above.

Benefit for Credit Losses

The table below provides quantitative analysis of the drivers of our single-family benefit for credit losses for the periods presented. Many of the drivers that contribute to our benefit or provision for credit losses overlap or are interdependent. The attribution shown below is based on internal allocation estimates. The table does not display our multifamily benefit or provision for credit losses as the amounts for all periods presented were less than $100 million.

Components of Benefit for Credit Losses

	For the Year Ended December 31,		
	2018	**2017**	**2016**
	(Dollars in billions)		
Single-family benefit for credit losses:			
Changes in loan activity[1]	**$0.8**	$(0.9)	$0.5
Redesignation of HFI loans to HFS loans	**1.9**	1.1	0.2
Actual and forecasted home prices	**1.2**	1.7	2.1
Actual and projected interest rates	**(0.8)**	(0.4)	(0.7)
Other[2]	**0.2**	0.6	*
Total single-family benefit for credit losses	**$3.3**	$2.1	$2.1

* Represents less than $50 million.

(1) Primarily consists of changes in the allowance due to loan delinquency, loan liquidations, new troubled debt restructurings, amortization of concessions granted to borrowers and the impact of FHFA's Advisory Bulletin 2012-02, "Framework for Adversely Classifying Loans, Other Real Estate Owned, and Other Assets and Listing Assets for Special Mention" (the "Advisory Bulletin"). The 2017 amount includes our estimate of incurred losses resulting from the 2017 hurricanes.

(2) Primarily consists of the impact of model and assumption changes and changes in the reserve for guaranty losses that are not separately included in the other components.

The primary factors that impacted our benefit for credit losses in 2018 were:

- The redesignation of certain reperforming and nonperforming single-family loans from HFI to HFS as we no longer intend to hold them for the foreseeable future or to maturity. Upon redesignation of these loans, we recorded the loans at the lower of cost or fair value with a charge-off to the allowance for loan losses. Amounts recorded in the allowance related to the loans exceeded the amounts charged off, which contributed to the benefit for credit losses.
- An increase in actual home prices, which contributed to the benefit for credit losses. 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 loss reserves and provision for credit losses.
- The benefit for credit losses was partially offset by the impact of higher actual and projected mortgage interest rates. As mortgage interest rates rise, we expect a decrease in future prepayments on single-family individually impaired loans, including modified loans. Lower expected prepayments lengthen the expected lives of modified loans, which increases the impairment relating to term and interest rate concessions provided on these loans and results in an increase in the provision for credit losses.

The following factors impacted our benefit for credit losses in 2017:

- We recognized a benefit for credit losses due to higher actual and forecasted home prices in the year.
- In addition, we recognized a benefit from the redesignation of certain reperforming and nonperforming single-family loans from HFI to HFS during the year.
- This was partially offset by the estimate of incurred losses from the 2017 hurricanes.

We recognized a benefit for credit losses in 2016 primarily due to an increase in home prices including distressed property valuations.

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” in our consolidated financial statements.

TCCA fees increased in 2018 compared with 2017, and in 2017 compared with 2016, as our book of business subject to the TCCA continued to grow in each period. 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 $4.1 billion in 2018, $16.0 billion in 2017 and $6.0 billion in 2016. The decrease in the provision for federal income taxes in 2018 as compared to 2017 was primarily the result of the effects of the Tax Act, which reduced the federal corporate income tax rate from 35% to 21% effective January 1, 2018. The provision for federal income taxes in 2017 reflects a charge of $9.9 billion that resulted from the remeasurement of our deferred tax assets in the fourth quarter of 2017 resulting from the enactment of the Tax Act.

Our effective tax rates were 20.6% in 2018, 86.6% in 2017 and 32.8% in 2016. Our effective tax rates for the years 2018, 2017 and 2016 were impacted by the benefits of our investments in housing projects eligible for low-income housing tax credits. In addition, our effective tax rate for the year ended December 31, 2017 was different from the federal statutory corporate tax rate due to the increase in the provision for federal income taxes driven by the remeasurement of our deferred tax assets discussed above. See “Note 9, Income Taxes” for additional information on our income taxes.

Consolidated Balance Sheet Analysis

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

Summary of Consolidated Balance Sheets

	As of December 31,		
	2018	**2017**	**Variance**
	(Dollars in millions)		
Assets			
Cash and cash equivalents and federal funds sold and securities purchased under agreements to resell or similar arrangements	**$58,495**	$51,580	$6,915
Restricted cash	**23,866**	28,150	(4,284)
Investments in securities[1]	**45,296**	39,522	5,774
Mortgage loans:			
Of Fannie Mae	**120,717**	167,793	(47,076)
Of consolidated trusts	**3,142,881**	3,029,816	113,065
Allowance for loan losses	**(14,203)**	(19,084)	4,881
Mortgage loans, net of allowance for loan losses	**3,249,395**	3,178,525	70,870
Deferred tax assets, net	**13,188**	17,350	(4,162)
Other assets	**28,078**	30,402	(2,324)
Total assets	**$3,418,318**	$3,345,529	$72,789
Liabilities and equity (deficit)			
Debt:			
Of Fannie Mae	**$232,074**	$276,752	$(44,678)
Of consolidated trusts	**3,159,846**	3,053,302	106,544
Other liabilities	**20,158**	19,161	997
Total liabilities	**3,412,078**	3,349,215	62,863
Fannie Mae stockholders' equity (deficit):			
Senior preferred stock	**120,836**	117,149	3,687
Other net deficit	**(114,596)**	(120,835)	6,239
Total equity (deficit)	**6,240**	(3,686)	9,926
Total liabilities and equity (deficit)	**$3,418,318**	$3,345,529	$72,789

(1) Includes $35.5 billion as of December 31, 2018 and $29.2 billion as of December 31, 2017 of U.S. Treasury securities that are included in our other investments portfolio, which we present in the "Other Investments Portfolio" table in "Liquidity and Capital Management—Liquidity Management—Other Investments Portfolio."

Investments in Securities

Other Investments Portfolio

Our 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—Other Investments Portfolio" for additional information on our 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. The table below 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.

Summary of Mortgage-Related Securities at Fair Value

	As of December 31,		
	2018	**2017**	**2016**
	(Dollars in millions)		
Mortgage-related securities:			
Fannie Mae	**$3,264**	$5,995	$7,323
Other agency	**3,759**	1,475	2,605
Alt-A and subprime private-label securities	**1,897**	1,767	3,345
CMBS	**—**	24	1,580
Mortgage revenue bonds	**435**	672	1,293
Other mortgage-related securities	**350**	367	462
Total	**$9,705**	$10,300	$16,608

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, 2018 and 2017.

Mortgage Loans, Net of Allowance for Loan Losses

The mortgage loans reported in our consolidated balance sheets are classified as either HFS or HFI and include loans owned by Fannie Mae and loans held in consolidated trusts.

Mortgage loans, net of allowance for loan losses increased as of December 31, 2018 compared with December 31, 2017 primarily driven by:

- an increase in mortgage loans of consolidated trusts due to acquisitions outpacing liquidations, partially offset by a reduction in loans of Fannie Mae due to sales of nonperforming and reperforming loans; and
- a decrease in our allowance for loan losses primarily driven by the redesignation of certain nonperforming and reperforming single-family loans from HFI to HFS.

For additional information on our mortgage loans, see “Note 3, Mortgage Loans,” and for additional information on changes in our allowance for loan losses, see “Note 4, Allowance for Loan Losses.”

Debt

Debt of consolidated trusts represents the amount of Fannie Mae MBS issued from consolidated trusts and held by third-party certificateholders. Debt of Fannie Mae is the primary means of funding our mortgage purchases. Debt of Fannie Mae also includes CAS debt, which we issued in connection with our transfer of mortgage credit risk. We provide a comparison of the mix between our outstanding short-term and long-term debt and a summary of the activity of the debt of Fannie Mae in “Liquidity and Capital Management—Liquidity Management—Debt Funding.” Also see “Note 7, Short-Term and Long-Term Debt” for additional information on our outstanding debt.

The decrease in debt of Fannie Mae in 2018 was primarily driven by lower funding needs, as our retained mortgage portfolio decreased. The increase in debt of consolidated trusts during 2018 was primarily driven by sales of Fannie Mae MBS, which are accounted for as issuances 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 (Deficit)

The shift from a net deficit of $3.7 billion as of December 31, 2017 to net equity of $6.2 billion as of December 31, 2018 reflects:

- our comprehensive income of $15.6 billion in 2018;
- our receipt of $3.7 billion from Treasury during the first quarter of 2018 pursuant to the senior preferred stock purchase agreement, which eliminated our net worth deficit as of December 31, 2017; and
- our dividend payments to Treasury of $9.4 billion in 2018.

Retained Mortgage Portfolio

Our retained mortgage portfolio consists of mortgage loans and mortgage-related securities that we own, including 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.

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

The chart below separates the instruments within our retained mortgage portfolio, measured 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 Fannie Mae-wrapped reverse mortgage securities and reverse mortgage loans as of December 31, 2018. We expect the amount of assets in "Other" will continue to decline over time as they liquidate, mature or are sold.

Retained Mortgage Portfolio
(Dollars in billions)

The table below displays the components of our retained mortgage portfolio, measured by unpaid principal balance.

Retained Mortgage Portfolio

	As of December 31,	
	2018	**2017**
	(Dollars in millions)	
Single-family:		
Mortgage loans[(1)]	**$102,047**	$146,316
Reverse mortgages	**21,856**	26,458
Mortgage-related securities:		
Agency securities[(2)]	**32,860**	31,719
Fannie Mae-wrapped reverse mortgage securities	**5,840**	6,689
Ginnie Mae reverse mortgage securities	**2,043**	527
Other Fannie Mae-wrapped securities	**650**	3,414
Private-label and other securities[(3)]	**3,042**	2,588
Total single-family mortgage-related securities	**44,435**	44,937
Total single-family mortgage loans and mortgage-related securities	**168,338**	217,711
Multifamily:		
Mortgage loans[(4)]	**2,772**	4,591
Mortgage-related securities:		
Agency securities[(2)]	**7,668**	7,860
CMBS	**—**	24
Mortgage revenue bonds	**375**	597
Total multifamily mortgage-related securities	**8,043**	8,481
Total multifamily mortgage loans and mortgage-related securities	**10,815**	13,072
Total retained mortgage portfolio	**$179,153**	$230,783

(1) Includes single-family loans classified as troubled debt restructurings ("TDRs") that were on accrual status of $58.5 billion and $86.3 billion as of December 31, 2018 and 2017, respectively, and single-family loans on nonaccrual status of $24.4 billion and $33.1 billion as of December 31, 2018 and 2017, respectively.

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

(3) The increase in private-label and other securities from December 31, 2017 to December 31, 2018 was due to the dissolution in the first quarter of 2018 of a Fannie Mae-wrapped private-label securities trust. The Fannie Mae-wrapped private-label securities had been classified as other Fannie Mae-wrapped securities prior to the dissolution.

(4) Includes multifamily loans classified as TDRs that were on accrual status of $57 million and $84 million as of December 31, 2018 and 2017, respectively, and multifamily loans on nonaccrual status of $150 million and $122 million as of December 31, 2018 and 2017, respectively.

The amount of mortgage assets that we may own is restricted by our senior preferred stock purchase agreement with Treasury, as described in "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements." Our retained mortgage portfolio is below the final $250.0 billion cap under the senior preferred stock purchase agreement that became effective on December 31, 2018. We expect our retained mortgage portfolio to remain below the $225.0 billion cap directed by FHFA. Its size may fluctuate as a result of our activities to support lender liquidity.

Our retained mortgage portfolio decreased by 22% in 2018 due to liquidations and sales from our loss mitigation and other portfolios, which outweighed purchases of loans in 2018.

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. The purchase price 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 2018, we purchased delinquent loans with an unpaid principal balance of $16.2 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 requirements.

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

Total Book of Business

The table below displays the composition of our total book of business based on unpaid principal balance. Our single-family book of business accounted for 91% of our total book of business as of December 31, 2018 and 2017. While our total 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.

Composition of Total Book of Business[1]

	As of December 31,					
	2018			2017		
	Single-Family	Multifamily	Total	Single-Family	Multifamily	Total
	(Dollars in millions)					
Guaranty book of business[2]	**$2,959,404**	**$ 309,748**	**$3,269,152**	$2,931,356	$ 280,502	$3,211,858
Non-Fannie Mae mortgage securities[3]	**6,698**	**375**	**7,073**	4,005	621	4,626
Total book of business	**$2,966,102**	**$ 310,123**	**$3,276,225**	$2,935,361	$ 281,123	$3,216,484
Guaranty Book of Business Detail:						
Conventional guaranty book of business[4]	**$2,925,246**	**$ 308,543**	**$3,233,789**	$2,890,908	$ 279,235	$3,170,143
Government guaranty book of business[5]	**$34,158**	**$ 1,205**	**$35,363**	$40,448	$ 1,267	$41,715

(1) Our total book of business refers to the sum of the unpaid principal balance of: Fannie Mae MBS outstanding; mortgage loans of Fannie Mae; non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio; and other credit enhancements that we provide on mortgage assets.

(2) Includes other single-family Fannie Mae guaranty arrangements of $1.6 billion and $1.8 billion as of December 31, 2018 and 2017, respectively, and other multifamily Fannie Mae guaranty arrangements of $12.3 billion and $12.4 billion as of December 31, 2018 and 2017, respectively. The unpaid principal balance of resecuritized Fannie Mae MBS is included only once in the reported amount.

(3) Includes mortgage-related securities issued by Freddie Mac and Ginnie Mae, mortgage revenue bonds, Alt-A and subprime private-label securities, and CMBS.

(4) 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.

(5) 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.

Business Segments

We conduct business in the U.S. residential mortgage markets and the global securities market. According to the Federal Reserve, total U.S. residential mortgage debt outstanding was estimated to be approximately $12.2 trillion as of September 30, 2018 (the latest date for which information is available). We owned or guaranteed mortgage assets representing approximately 26% of total U.S. residential mortgage debt outstanding as of September 30, 2018.

We have two reportable business segments: Single-Family and Multifamily. The Single-Family business operates in the secondary mortgage market relating to single-family mortgage loans, which are secured by properties containing four or fewer residential dwelling units. The Multifamily business operates in the secondary mortgage market relating primarily to multifamily mortgage loans, which are secured by properties containing five or more residential units. The chart below displays the net revenues and pre-tax income for each of our business segments. Net revenues consist of net interest income and fee and other income. Pre-tax income refers to income before federal income taxes.

Business Segment Net Revenues and Pre-Tax Income (Dollars in billions)

In this section we describe each segment's primary business activities, customers, competitive and market conditions, business and credit metrics, and financial results. We also discuss how each segment manages mortgage credit risk. See "Note 10, Segment Reporting" for information about the total assets of each business segment and the management reporting and allocation process used to generate our segment results.

Single-Family Business

Single-Family Primary Business Activities

Providing Liquidity for Single-Family Mortgage Loans

Working with our lender customers, our Single-Family business provides liquidity to the mortgage market primarily by acquiring single-family loans from lenders 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.

Single-Family Mortgage Servicing

Servicing of the mortgage loans held in our retained mortgage portfolio or backing 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."

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 Credit Risk and Credit Loss Management

Our Single-Family business:

- Prices and manages the credit risk on loans in our single-family guaranty book of business.
- Enters into transactions that transfer a portion of the credit risk on some of the loans in our single-family guaranty book of business.
- Works to reduce costs of defaulted single-family loans through home retention solutions and foreclosure alternatives, management of foreclosures and our REO inventory, selling nonperforming loans, and pursuing contractual remedies from lenders, servicers and providers of credit enhancement.

See "Single-Family Mortgage Credit Risk Management" below for discussion of our strategies for managing credit risk and credit losses on single-family loans.

Single-Family Customers

Our principal single-family 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.

During 2018, 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 2018, our top five lender customers, in the aggregate, accounted for approximately 42% of our single-family business volume, compared with approximately 36% in 2017. 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 2018, with approximately 19% of our 2018 single-family business volume.

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

Single-Family Competition

We compete to acquire single-family mortgage assets in the secondary market. We also compete for the issuance of single-family 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 implementation of the Single Security Initiative or new legislation or regulations applicable to us or our customers or investors. See "Business—Conservatorship, Treasury Agreements and Housing Finance Reform," "Business—Charter Act 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. Currently, 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. However, as noted above, the nature of our primary competitors and the overall levels of competition we face could change as a result of a variety of factors, many of which are outside our control.

Single-Family Market Share

The chart below displays our market share of single-family mortgage loan acquisitions in 2018 as compared with that of our primary competitors. This acquisition market share information is based on our current estimates of the single-family first lien mortgage loans that were originated in the United States in 2018, as well as estimates of our competitors' acquisitions based on publicly available data. Our estimates are subject to change, perhaps materially, as additional data become available. We exclude our purchase of delinquent loans from our MBS trusts in the calculation of our market share.

(1) We estimate our single-family acquisition market share was 27% in 2017 and 28% in 2016.

The chart below displays our market share of single-family mortgage-related securities issuances in 2018 as compared with that of our primary competitors for the issuance of single-family mortgage-related securities.

(1) We estimate our market share of single-family mortgage-related securities issuances was 39% in both 2017 and 2016.

Single-Family Mortgage Market

Below we present macroeconomic factors that affect the single-family mortgage market in which our Single-Family business operates. Home sales and the supply of unsold homes are indicators of the underlying demand for mortgage loans, which impacts our acquisition volumes.

Total Single-Family Home Sales and Months' Supply of Unsold Homes (1)

(Home sales units in thousands)

Single-Family Mortgage Originations and Mortgage Debt Outstanding (2)

(Dollars in trillions)

(1) Total existing home sales data according to National Association of REALTORS®. New single-family home sales data according to the U.S. Census Bureau. Certain previously reported data may have been changed to reflect revised historical data from one or both of these organizations. New single-family home sales data is as of November 2018, the latest date available.

(2) 2018 information is as of September 30, 2018 and is based on the Federal Reserve's December 2018 mortgage debt outstanding release, the latest date for which the Federal Reserve has estimated mortgage debt outstanding for single-family residences. Prior period amounts may have been changed to reflect revised historical data from the Federal Reserve.

Additional Factors

- The 30-year fixed mortgage rate averaged 4.5% in 2018, compared with 4.0% in 2017, according to Freddie Mac's Primary Mortgage Market Survey®.
- We forecast that total originations in the U.S. single-family mortgage market in 2019 will decrease from 2018 levels by approximately 0.7%, from an estimated $1.63 trillion in 2018 to $1.61 trillion in 2019, and that the amount of originations in the U.S. single-family mortgage market that are refinancings will decrease from an estimated $461 billion in 2018 to $423 billion in 2019.

Single-Family Business Metrics

Net revenues for our single-family business are driven by MBS we issue and the guaranty fees we charge, which we present in the charts and discussion below.

Single-Family Fannie Mae MBS Issuances, Fannie Mae MBS Outstanding and Average Guaranty Book of Business (Dollars in billions)

(1) Our single-family guaranty book of business consists of Fannie Mae MBS outstanding, mortgage loans of Fannie Mae held in our retained mortgage portfolio, and other credit enhancements that we provide on mortgage assets. It excludes non-Fannie Mae single-family mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty. The average single-family guaranty book of business is calculated based on the average of all four quarters during each respective year.

Although single-family Fannie Mae MBS issuances decreased in 2018 primarily as a result of lower refinancing activity during the year, single-family Fannie Mae MBS outstanding increased as of year-end 2018, as liquidations slowed in 2018 driven by a decline in prepayments due to the rising interest rate environment.

Average Charged Guaranty Fee on Single-Family Guaranty Book of Business and on New Single-Family Acquisitions(1)

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

Our average charged guaranty fee on newly acquired single-family loans, net of TCCA increased in 2018 compared with 2017, primarily driven by a shift in product mix toward long-term fixed-rate products and in accordance with FHFA's guidance to meet a minimum return on equity target based on the conservatorship capital framework.

For purposes of these disclosures, we present the sum of the average guaranty fee rate for our single-family guaranty arrangements during the period plus the recognition of any upfront cash payments over an estimated average life at the time of acquisition. For all periods presented, the methodology used to estimate average life at the time of acquisition was updated.

Single-Family Business Financial Results

	For the Year Ended December 31,			Variance	
	2018	**2017**	**2016**	**2018 vs. 2017**	**2017 vs. 2016**
	(Dollars in millions)				
Net interest income(1)	**$18,162**	$18,212	$19,010	$(50)	$(798)
Fee and other income	**450**	1,378	521	(928)	857
Net revenues	**18,612**	19,590	19,531	(978)	59
Investment gains, net	**850**	1,352	944	(502)	408
Fair value gains (losses), net	**1,210**	(1,188)	(1,040)	2,398	(148)
Administrative expenses	**(2,631)**	(2,391)	(2,418)	(240)	27
Credit-related income(2)	**2,709**	1,550	1,439	1,159	111
TCCA fees(1)	**(2,284)**	(2,096)	(1,845)	(188)	(251)
Other expenses, net	**(1,012)**	(1,004)	(1,012)	(8)	8
Income before federal income taxes	**17,454**	15,813	15,599	1,641	214
Provision for federal income taxes	**(3,708)**	(14,301)	(5,417)	10,593	(8,884)
Net income	**$13,746**	$1,512	$10,182	$12,234	$(8,670)

(1) Reflects the impact of a 10 basis point guaranty fee increase implemented 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 for credit losses and foreclosed property expenses.

Net interest income

Single-family net interest income decreased in 2018 compared with 2017, primarily due to lower amortization income, partially offset by higher base guaranty fee income.

Single-family net interest income decreased in 2017 compared with 2016, primarily due to a decline in the average balance of our single-family retained mortgage portfolio and lower amortization income, partially offset by higher base guaranty fee income.

Fee and other income

Fee and other income decreased in 2018 compared with 2017 and increased in 2017 compared with 2016. The driver for these changes was $975 million of income in 2017 resulting from a settlement agreement resolving legal claims related to private-label securities we purchased prior to entering conservatorship.

Investment gains, net

Investment gains, net decreased during 2018 compared with 2017 primarily due to lower gains from the sale of HFS loans driven by a decline in average sales prices.
Investment gains, net increased during 2017 compared with 2016 primarily due to increased gains resulting from a higher sales volume of HFS loans.

Fair value gains (losses), net

As we discuss more fully in “Consolidated Results of Operations—Fair Value Gains (Losses), Net,” fair value gains in 2018 were primarily driven by increases in the fair value of our risk management and mortgage commitment derivatives as a result of increases in interest rates during the year. We also recognized fair value gains on CAS debt in 2018 as a result of widening spreads between CAS yields and LIBOR during the year.

Fair value losses in 2017 were primarily driven by interest expense accruals on interest rate swaps we use to manage interest rate risk which were partially offset by an increase in the fair value of our interest rate swaps in 2017 due to movements in swap rates during the year.

Additionally, we recognized fair value losses on our mortgage commitment derivatives in 2017 primarily due to losses on commitments to sell mortgage-related securities driven by an increase in prices as interest rates declined during most commitment periods throughout 2017.

Administrative expenses

Administrative expenses increased in 2018 compared with 2017 primarily due to higher professional services costs in support of our business resiliency activities and additional severance costs.
Administrative expenses were flat in 2017 compared with 2016.

Credit-related income

Credit-related income in 2018 was primarily driven by the redesignation of loans from HFI to HFS and higher actual home prices, partially offset by higher actual and projected interest rates.
Credit-related income in 2017 was primarily driven by higher actual and forecasted home prices and the redesignation of loans from HFI to HFS, which was partially offset by estimated incurred losses from the 2017 hurricanes.

See “Consolidated Results of Operations—Credit-Related Income (Expense)” for more information on the drivers of our credit-related income.

Single-Family Mortgage Credit Risk Management

Our strategy for managing single-family mortgage credit risk consists of four primary components:

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

Presentation of our single-family guaranty book for credit statistics

To align with how we manage our credit risk, for purposes of the information reported below, we adjust our measurement of our single-family guaranty book of business by using the unpaid principal balance of mortgage loans underlying Fannie Mae MBS instead of the unpaid principal balance of the MBS. These amounts differ primarily as a result of payments we receive on underlying loans that have not yet been remitted to the MBS holders. As measured for purposes of the information reported below, our conventional guaranty book of business was $2,903 billion and $2,859 billion as of December 31, 2018 and 2017.

In addition, we exclude from these credit statistics less than 1% of our single-family conventional guaranty book of business for which our loan level information is incomplete as of December 31, 2018 and 2017. 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 and warranties 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 and warranties. 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 setting underwriting and servicing standards and pricing, and managing credit risk relating to our single-family guaranty book of business.

Underwriting and Servicing Standards

Our Selling Guide sets forth our underwriting and eligibility guidelines, as well as our policies and procedures related to selling single-family mortgages to us. Our Servicing Guide sets forth our policies for servicing the single-family loans in our single-family guaranty book.

Desktop Underwriter

Our proprietary automated underwriting system, Desktop Underwriter (“DU®”), is used by mortgage lenders to evaluate the majority of our single-family loan acquisitions. DU was used to evaluate over 90% of the single-family loans we acquired in 2018. DU measures credit risk by assessing the primary risk factors of a mortgage and provides a comprehensive risk assessment of a borrower’s loan application and eligibility of the loan for sale to us. Risk factors evaluated by DU include the key loan attributes described under “Single-Family Portfolio Diversification and Monitoring” below such as borrower credit data, LTV ratio, loan purpose and occupancy type, as well as other risk factors such as the borrower’s debt-to-income ratio, the amount of the borrower’s liquid reserves, the presence of co-borrowers and whether the borrower is self-employed. DU does not use a FICO credit score to evaluate the borrower’s credit history, but applies its own assessment of the borrower’s credit data, including using trended credit data. DU performs a comprehensive evaluation of these factors, weighing each factor based on the amount of risk it represents and its importance to the recommendation. DU analyzes the results of this risk and eligibility evaluation to arrive at the underwriting recommendation for the loan case file. As part of our comprehensive risk management approach, we regularly review DU’s underlying risk assessment models and recalibrate these models to improve DU’s ability to effectively analyze risk and avoid excessive risk layering. Factors we take into account in these evaluations include the profile of loans delivered to us, loan performance and current market conditions. We periodically update DU to reflect changes to our underwriting and eligibility guidelines based on these evaluations.

In 2017, we updated DU with a change that enabled loans with debt-to-income ratios above 45% (up to 50%) to rely on DU’s comprehensive risk assessment, removing rules that had previously set maximum LTV ratio and minimum reserves requirements for those loans. Based on our assessment of the loan profiles delivered to us after this update, we updated DU two more times in 2018 to limit our acquisition of loans with risk layering, or multiple higher-risk characteristics (such as high LTV ratio, credit profile with a history of delinquencies, debt-to-income ratio above 45% and no or low levels of reserves). We will continue to closely monitor loan acquisitions and market conditions and, as appropriate, make changes in our eligibility criteria so that the loans we acquire are consistent with our risk appetite.

Other Underwriting Standards

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.

Servicing Policies

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. See "Single-Family Primary Business Activities—Single-Family Mortgage Servicing" above for more information on the servicing of our single-family mortgage loans.

Quality Control Process

Our quality control process includes using automated tools to help us determine whether a loan meets our underwriting and eligibility guidelines, performing more in-depth reviews, and selecting random samples of performing loans for quality control review shortly after delivery.

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 refer to our demands that mortgage sellers and servicers meet these obligations collectively as repurchase requests.

Representation and Warranty Relief

Our revised representation and warranty framework relieves lenders of repurchase liability for violations of certain underwriting representations and warranties. Loans with consecutive monthly payments with minimal delinquencies over a specified time period or with satisfactory conclusion of a full-file quality control review are eligible for relief. However, no relief may be granted for violations of "life of loan" representations and warranties, such as those relating to whether a loan was originated in compliance with applicable laws or 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 liability for violations of certain representations and warranties at an earlier date. Our Day 1 Certainty® initiative 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®, our appraisal review tool; and
- property value, condition and marketability for lenders that exercise the appraisal waiver option available on eligible transactions.

As of December 31, 2018, approximately 62% of the outstanding loans in our single-family conventional guaranty book of business were acquired on or after January 1, 2013 and are subject to the revised representation and warranty framework, compared with 55% as of December 31, 2017. In the chart below, we display information regarding the relief status of single-family conventional loans delivered to us under our revised representation and warranty framework, based only on payment history or the satisfactory conclusion of a full-file quality control review.

Representation and Warranty Status of Single-Family Conventional Loans Acquired in 2013-2018[(1)]

(1) Acquisitions of single-family conventional loans include $29.5 billion and $22.3 billion as of December 31, 2018 and 2017, respectively, that are not eligible for relief under the revised representation and warranty framework due to delinquencies or defects identified in quality control reviews.

Providing lenders with relief from loan repurchase requests for breaches of certain representations and warranties on loans 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.

Single-Family Portfolio Diversification and Monitoring

Overview

The composition of our single-family book of business is diversified by product type, loan characteristics and geography, all of which influence 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 single-family guaranty book of business includes 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 us, 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.

The table below 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.

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] As of December 31,		
	2018	**2017**	**2016**	**2018**	**2017**	**2016**
Original LTV ratio:[4]						
<= 60%	**16** %	18 %	21 %	**19** %	20 %	21 %
60.01% to 70%	**12**	13	14	**13**	14	14
70.01% to 80%	**37**	39	38	**38**	38	38
80.01% to 90%	**13**	12	12	**12**	11	11
90.01% to 95%	**15**	13	12	**11**	10	9
95.01% to 100%	**7**	5	3	**4**	4	3
Greater than 100%	*	*	*	**3**	3	4
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
Weighted average	**77** %	75 %	74 %	**75** %	75 %	75 %
Average loan amount	**$232,651**	$226,325	$230,249	**$170,076**	$166,643	$163,200
Estimated mark-to-market LTV ratio:[5]						
<= 60%				**54** %	52 %	49 %
60.01% to 70%				**18**	18	19
70.01% to 80%				**16**	17	17
80.01% to 90%				**8**	8	9
90.01% to 100%				**4**	4	4
Greater than 100%				*	1	2
Total				**100** %	100 %	100 %
Weighted average				**57** %	58 %	60 %
Product type:						
Fixed-rate:[6]						
Long-term	**90** %	84 %	81 %	**84** %	80 %	77 %
Intermediate-term	**8**	13	17	**14**	15	17
Total fixed-rate	**98**	97	98	**98**	95	94
Adjustable-rate	**2**	3	2	**2**	5	6
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
Number of property units:						
1 unit	**98** %	97 %	98 %	**97** %	97 %	97 %
2-4 units	**2**	3	2	**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] As of December 31,		
	2018	**2017**	**2016**	**2018**	**2017**	**2016**
Occupancy type:						
Primary residence	**89** %	89 %	90 %	**89** %	89 %	88 %
Second/vacation home	**5**	4	4	**4**	4	4
Investor	**6**	7	6	**7**	7	8
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
FICO credit score at origination:						
< 620	* %	* %	* %	**2** %	2 %	2 %
620 to < 660	**6**	5	4	**5**	5	5
660 to < 700	**14**	13	11	**12**	12	12
700 to < 740	**23**	23	21	**20**	20	20
>= 740	**57**	59	64	**61**	61	61
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
Weighted average	**743**	745	750	**746**	745	745
Loan purpose:						
Purchase	**65** %	56 %	44 %	**43** %	39 %	35 %
Cash-out refinance	**22**	21	19	**20**	20	20
Other refinance	**13**	23	37	**37**	41	45
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
Geographic concentration:[7]						
Midwest	**14** %	14 %	14 %	**15** %	15 %	15 %
Northeast	**14**	14	14	**17**	18	18
Southeast	**23**	23	21	**22**	22	22
Southwest	**21**	20	19	**18**	17	17
West	**28**	29	32	**28**	28	28
Total	**100** %	100 %	100 %	**100** %	100 %	100 %
Origination year:						
2012 and prior				**29** %	36 %	45 %
2013				**11**	12	15
2014				**6**	7	8
2015				**10**	12	14
2016				**16**	18	18
2017				**15**	15	—
2018				**13**	—	—
Total				**100** %	100 %	100 %

* 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 estimated mark-to-market LTV ratios in this table.

(2) Calculated based on the 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) 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

(5) 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.

(6) 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.

(7) 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.

The share of our single-family loan acquisitions consisting of home purchase loans rather than refinances increased in 2018 compared with 2017, primarily driven by higher mortgage rates in 2018. In addition, our acquisitions of loans from first-time home buyers increased from 23% of our single-family loan acquisitions in 2017 to 27% in 2018. Typically, home purchase loans—particularly those to first-time home buyers—have higher LTV ratios than refinances. The increased share of home purchase loan acquisitions has increased the percentage of home purchase loans in our single-family conventional guaranty book of business.

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 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.

We continue to seek new ways to responsibly support access to mortgage credit. FHFA's 2019 conservatorship scorecard specifies that in 2019 we should continue efforts to support 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 support 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

To expand refinancing opportunities for borrowers who may otherwise have been unable to refinance their mortgage loans due to a decline in home values, through the end of 2018 we offered our Refi Plus initiative. Through Refi Plus, we also acquired loans under the Home Affordable Refinance Program® ("HARP®"), which allowed Fannie Mae borrowers who had mortgage loans with note dates prior to June 2009 and current LTV ratios greater than 80% to refinance their mortgages without obtaining new mortgage insurance in excess of what was already in place, provided certain other criteria were met.

The loans we acquired under HARP had higher LTV ratios than we would otherwise permit, greater than 100% in some cases. In addition to the high LTV ratios that characterize HARP loans, some borrowers for HARP and Refi Plus loans may also have had lower FICO credit scores and may have provided less documentation than we would otherwise require.

Because loans we acquired under Refi Plus and HARP represented refinancings of loans that were already in our guaranty book of business, the credit risk associated with HARP and Refi Plus loans essentially replaced the credit risk on the loans that we already held prior to the refinancing. However, we expect these loans will perform better than the loans they replaced because HARP and Refi Plus loans either reduced borrowers' monthly payments or provided more stable terms than the borrowers' old loans.

The following table displays key statistics on our HARP loans.

Statistics on HARP Loans

	As of December 31,	
	2018	**2017**
Percentage of single-family conventional guaranty book of business[1]	**6 %**	7 %
Serious delinquency rate	**0.96 %**	1.43 %
Estimated mark-to-market LTV ratio	**65 %**	70 %
Weighted average FICO credit score at origination	**700**	702

(1) HARP loans constituted less than 0.5% of our total single-family acquisitions in 2018 and 1% in 2017.

The HARP program and our Refi Plus initiative ended on December 31, 2018. In December 2018, pursuant to a directive from FHFA, we implemented a new high LTV refinance offering aimed at borrowers who are making their mortgage payments on time and whose current LTV ratio exceeds a specified amount. The new high LTV refinance offering is available for borrowers whose loans were originated on or after October 1, 2017 and who meet other eligibility requirements.

Jumbo-Conforming and High-Balance Loans

The standard conforming loan limit for a one-unit property was $424,100 for 2017, $453,100 for 2018 and increased to $484,350 for 2019. As we discuss in "Business—Charter Act and Regulation—Charter Act," we are permitted to acquire loans with higher balances in certain areas, which we refer to as jumbo-conforming and high-balance loans.

The following table displays the amount of jumbo-conforming and high-balance loans in our single-family conventional guaranty book of business.

Single-Family Jumbo-Conforming and High-Balance Loans

	As of December 31,	
	2018	**2017**
Unpaid principal balance (in billions)	**$202.0**	$188.6
Percentage of single-family conventional guaranty book of business	**7%**	7%

Reverse Mortgages

In 2010, we ceased acquisitions of newly originated 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 $27.7 billion as of December 31, 2018 and $33.1 billion as of December 31, 2017. 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. We have different types of ARMS including:

- Interest-only loans that 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.
- Negative-amortizing loans 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 2% of our single-family conventional guaranty book of business as of December 31, 2018 and 5% as of December 31, 2017.

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 $20.6 billion as of December 31, 2018. During 2018, approximately 72% of these modified loans experienced an interest rate reset to a weighted average interest rate of 4.06%.

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 a loan is:

- at imminent risk of default and the borrower requests a loan modification; or
- 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.

The table below 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.

Single-Family Adjustable-Rate Mortgage and Rate Reset Modifications[1]

	Reset Year						
	2019	2020	2021	2022	2023	Thereafter	Total
	(Dollars in millions)						
ARMs—Amortizing	$21,490	$4,600	$5,390	$6,687	$5,175	$ 14,667	**$58,009**
ARMs—Interest Only and Negative Amortizing	11,429	461	157	304	281	6	**12,638**
Rate Reset Modifications	6,068	1,542	1,257	976	4	—	**9,847**
Fixed-Rate Interest Only	15	41	35	19	12	1	**123**

(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 historically low interest rate environment. If interest rates rise significantly, it is uncertain that this trend will continue.

Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk

One of the key components of our credit risk management strategy is the transfer of mortgage credit risk to third parties. The table below displays the total unpaid principal balance and percentage of loans in our single-family conventional guaranty book of business that are covered by one or more forms of credit enhancement, including mortgage insurance or a credit risk transfer transaction.

Single-Family Loans with Credit Enhancement

	As of			
	December 31, 2018		December 31, 2017	
	Unpaid Principal Balance	Percentage of Single-Family Conventional Guaranty Book of Business	Unpaid Principal Balance	Percentage of Single-Family Conventional Guaranty Book of Business
	(Dollars in billions)			
Primary mortgage insurance and other	**$ 618**	**21 %**	$566	20 %
Connecticut Avenue Securities	**798**	**27**	681	24
Credit Insurance Risk Transfer™	**243**	**8**	181	6
Lender risk sharing	**102**	**4**	65	2
Less: Loans covered by multiple credit enhancements	**(394)**	**(13)**	(335)	(12)
Total unpaid principal balance of single-family loans with credit enhancement	**$ 1,367**	**47 %**	$1,158	40 %

The portion of our single-family guaranty book of business without credit enhancement consists mostly of:

- loans that did not require credit enhancement at the time we acquired them because they had LTV ratios below 80%;
- loans we acquired before the inception of or too recently to be included in our CAS or CIRT programs; and
- loans that are not in our current target population for credit risk transfer transactions because they have lower LTV ratios, are intermediate-term or adjustable-rate mortgages, or were acquired under our Refi Plus initiative.

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. This charter requirement is generally achieved through primary mortgage insurance. Primary mortgage insurance transfers varying portions of the credit risk associated with a mortgage loan to a third-party insurer. 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 securing the loan must have been extinguished, generally in a foreclosure action. Claims are generally paid three to six months after title to the property has been transferred.

For a discussion of our mortgage insurance coverage, see "Risk Management—Credit Risk Management—Institutional Counterparty Credit Risk Management—Mortgage Insurers."

Credit Risk Transfer Transactions

Our Single-Family business has developed other risk-sharing capabilities to transfer portions of our single-family mortgage credit risk to the private market. 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 interest or a premium that effectively reduces the guaranty fee income that we retain. We enter into other types of credit risk transfer transactions in addition to our CAS and CIRT transactions, including lender risk-sharing transactions.

We target over 90% of acquisitions in the following loan categories for credit risk transfer transactions:

- fixed-rate 30-year single-family conventional loans that meet certain credit performance characteristics;
- loans that are non-Refi Plus; and
- loans with LTV ratios between 60% and 97%.

This criteria covers over 60% of our recent single-family acquisitions. Loans are generally included in reference pools for CAS and CIRT transactions on a lagged basis. In recent years, we have shortened this lag for a majority of target loans to typically less than six months after we initially acquire the loans. In addition, on our lender risking-sharing transactions and on a portion of our CIRT transactions, the credit risk transfer is generally effective upon acquisition of 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.

As of December 31, 2018, approximately 39% 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.

Categories of our credit risk transfer transactions

CAS	• 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 and create a hypothetical securitization structure with notional credit risk positions, or tranches (that is, first loss, mezzanine and senior). • CAS debt is issued related to the first loss, mezzanine and senior loss mezzanine risk positions. • We retain the senior loss and all or a portion of the first loss tranche in CAS transactions. In addition, we retain a pro rata share of risk equal to approximately 5% of all notes sold in mezzanine tranches. • CAS debt is recognized as "debt of Fannie Mae" in our consolidated balance sheets. CAS debt issued to investors beginning January 2016 through October 2018 is recognized at amortized cost. CAS debt we issued prior to 2016 is recognized at fair value.	• 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. • 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. • 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 the loans in a stressed credit environment, such as a severe or prolonged economic downturn. • Generally issued with a stated final maturity date of either 10 or 12.5 years from issuance. • After maturity, CAS debt provides no further credit protection with respect to the remaining loans in the reference pool underlying that CAS transaction. • Significant lag exists between the time when we recognize a provision for credit losses and when we recognize the related recovery from the CAS transaction.
CAS REMIC	CAS REMIC transactions are similar to CAS transactions, with some key differences: • Since November 2018, our CAS offerings have been structured as notes that qualify as interests in a REMIC issued by a non-consolidated trust. We obtain credit protection through arrangements that we execute with the trust. • We recognize the cost of credit protection in "Other expenses, net" in our consolidated statements of operations and comprehensive income.	CAS REMICs have characteristics similar to CAS, with some key differences: • Enables expanded participation by real estate investment trusts and certain international investors. • Aligns the timing of our recognition of provisions for credit losses with the related recovery from CAS REMIC transactions.
CIRT	• 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. • In CIRT deals, we generally retain an initial portion of losses on the loans in the pool (for example the first 0.6% of the initial pool unpaid principal balance). Reinsurers cover losses above this retention amount up to a detachment point (for example the next 3.0% of the initial pool unpaid principal balance). We retain all losses above this detachment point. • We make premium payments on CIRT deals that we recognize in "Other expenses, net" in our consolidated statements of operations and comprehensive income.	• 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. • A portion of the insurers' or reinsurers' obligations is collateralized with highly-rated liquid assets held in a trust account initially determined according to the ratings of such insurer or reinsurer. Contractual provisions require additional collateral to be posted in the event of adverse developments with the counterparty, such as a ratings downgrade. • Generally written for 10 year terms.
Lender risk-sharing	• Customized lender risk-sharing transactions. • In most transactions, lenders invest directly in a portion of the credit risk on mortgage loans they originate and/or service.	• Transactions are generally structured so that a portion of the credit risk on the underlying mortgage loans is transferred without increasing our counterparty exposure.

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

Single-Family Credit Risk Transfer Transactions

Issuances from Inception to December 31, 2018[1]
(Dollars in billions)

Senior	Fannie Mae[2] $1,524
Mezzanine	Fannie Mae[2] $2
First Loss	Fannie Mae[2] $8

Outstanding as of December 31, 2018[1]
(Dollars in billions)

Senior	Fannie Mae[2] $1,109
Mezzanine	Fannie Mae[2] $1
First Loss	Fannie Mae[2] $8

(1) For some lender risk-sharing transactions, does not reflect completed transfers of risk prior to settlement.

(2) Credit risk retained by Fannie Mae in CAS, CIRT and lender risk-sharing transactions. Tranche sizes vary across programs.

(3) Credit risk transferred to third parties. Tranche sizes vary across programs.

(4) Includes mortgage pool insurance transactions covering loans with an unpaid principal balance of approximately $7 billion at issuance and approximately $4 billion outstanding as of December 31, 2018.

(5) For CIRT and some lender risk-sharing transactions, “Reference Pool” reflects a pool of covered loans.

(6) For CAS transactions, “First Loss” represents all B tranche balances.

(7) For CAS and some lender risk-sharing transactions, represents outstanding reference pools, not the outstanding unpaid principal balance of the underlying loans. The outstanding unpaid principal balance for all loans covered by credit risk transfer programs, including all loans on which risk has been transferred in lender risk-sharing transactions, was $1,143 billion as of December 31, 2018.

While these deals are expected to mitigate some of our potential future credit losses, they are not designed to shield us from all losses. 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. In addition, on our CAS transactions, we retain a pro rata share of risk equal to approximately 5% of all notes sold in mezzanine tranches.

We have designed some of our credit risk transfer transactions so that prepayment activity typically has a more substantial impact on the senior tranches retained by Fannie Mae than on the risk transferred to third parties. Principal payments on the underlying reference pool are first allocated between the senior tranches and then applied sequentially to the subordinate tranches. Losses are applied in reverse sequential order starting with the first loss tranche. For CAS transactions, all principal payments and losses are allocated pro rata between the sold notes and the portion we retain. We have recognized minimal credit losses on the loans in reference pools underlying credit risk transfer transactions 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.

The decreases in outstanding balances from issuance to December 31, 2018 in the senior and mezzanine tranches are the result of paydowns. Outstanding balances from issuance to December 31, 2018 in the first loss tranches decreased only slightly as the losses allocated to those tranches were insignificant.

As a part of our continued effort to innovate and improve our credit risk transfer programs, we completed our first CAS offering under the new REMIC structure in November 2018. This enhancement to our CAS program is designed to promote the continued growth of the market by expanding the potential investor base for these securities and limiting investor exposure to Fannie Mae counterparty risk, without disrupting the TBA MBS market. The new structure will also align the timing of our recognition of provisions for credit losses with the related recovery from CAS REMIC transactions, which differs from our previous CAS structures. Under previous CAS structures, there can be a significant lag between the time when we recognize a provision for credit losses and when we recognize the related recovery from the CAS transaction. For a loan in a reference pool for a CAS issued between January 2016 and November 2018, a recovery is not recorded until after a loss has been confirmed. However, credit-related expenses related to these loans are currently recorded when it is probable that we have incurred a loss, and upon our adoption of the CECL standard, will be recorded based on expected losses. The CAS REMIC structure eliminates this timing mismatch, allowing us to recognize the expected credit loss protection benefit at the same time the credit loss is recognized in our consolidated financial statements. We will continue to record the expected benefit and the loss in the same period upon our adoption of the CECL standard in January 2020.

The table below displays the approximate cash paid or transferred to investors for these credit risk transfer transactions. The cash represents the portion of guaranty fee paid to investors as compensation for taking on a share of the credit risk. These expenses increased from 2017 to 2018 as we transferred credit risk on a larger portion of our single-family book of business in 2018.

Credit Risk Transfer Transactions

	For the Year Ended December 31,	
	2018	**2017**
Cash paid or transferred for:	**(Dollars in millions)**	
CAS transactions[1]	**$888**	$770
CIRT transactions	**286**	190

(1) Consists of cash paid for interest expense net of LIBOR on outstanding CAS debt and amounts paid for CAS REMIC transactions.

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. When appropriate, we seek to move to foreclosure expeditiously.

Below we describe the following:

- delinquency statistics on our problem loans;
- efforts undertaken to manage our problem loans, including the role of servicers in loss mitigation, loan workouts, and sales of nonperforming loans;
- metrics regarding our loan workout activities;
- REO management; and
- other single-family credit-related disclosures, including our credit performance and concentration metrics, loss reserves and TDRs resulting from loan modifications.

Delinquency

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.
The table below displays the delinquency status and changes in the balance of seriously delinquent loans in our single-family conventional guaranty book of business, based on number of loans.

Delinquency Status and Activity of Single-Family Conventional Loans

	As of December 31,		
	2018	**2017**	**2016**
Delinquency status:			
30 to 59 days delinquent	**1.37%**	1.63%	1.51%
60 to 89 days delinquent	**0.38**	0.50	0.41
Seriously delinquent ("SDQ")	**0.76**	1.24	1.20
Percentage of SDQ loans that have been delinquent for more than 180 days	**49 %**	43 %	59 %
Percentage of SDQ loans that have been delinquent for more than two years	**12**	13	21

	For the Year Ended December 31,		
	2018	**2017**	**2016**
Single-family SDQ loans (number of loans):			
Beginning balance	**212,183**	206,549	267,174
Additions	**227,199**	287,805	252,590
Removals:			
Modifications and other loan workouts	**(99,140)**	(76,119)	(77,800)
Liquidations and sales	**(79,105)**	(84,512)	(117,459)
Cured or less than 90 days delinquent	**(130,697)**	(121,540)	(117,956)
Total removals	**(308,942)**	(282,171)	(313,215)
Ending balance	**130,440**	212,183	206,549

Our single-family serious delinquency rate decreased in 2018 primarily driven by improved loan payment performance and nonperforming loan sales. Our single-family serious delinquency rate increased in 2017 due to the impact of the 2017 hurricanes, but has since resumed its prior downward trend in 2018 because many delinquent borrowers in the affected areas have resolved their loan delinquencies by obtaining loan modifications or through resuming payments and becoming current on their loans. We expect our single-family serious delinquency rate to continue to decline, but at a more modest pace than in the past several years, and to experience period-to-period fluctuations.
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;
- natural disasters;
- 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 5% of our single-family book of business as of December 31, 2018, but constituted 39% of our seriously delinquent single-family loans as of December 31, 2018 and drove 66% of our 2018 single-family credit losses. In addition, loans in certain judicial foreclosure states such as Florida, New Jersey and New York with historically long foreclosure timelines have exhibited higher than average delinquency rates and/or account for a higher share of our credit losses.
The following table 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.

Single-Family Conventional Seriously Delinquent Loan Concentration Analysis

	As of December 31,					
	2018			2017		
	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 %**	**0.34 %**	19%	5 %	0.42 %
Florida	**6**	**10**	**1.16**	6	19	3.71
New Jersey	**4**	**5**	**1.38**	4	5	2.15
New York	**5**	**8**	**1.40**	5	7	2.02
All other states	**66**	**71**	**0.75**	66	64	1.09
Product type:						
Alt-A	**2**	**11**	**3.35**	2	12	4.95
Vintages:						
2004 and prior	**3**	**23**	**2.69**	4	23	3.28
2005-2008	**5**	**39**	**4.61**	6	42	6.55
2009-2018	**92**	**38**	**0.34**	90	35	0.53
Estimated mark-to-market LTV ratio:						
<= 60%	**54**	**48**	**0.58**	52	41	0.84
60.01% to 70%	**18**	**17**	**0.87**	18	18	1.34
70.01% to 80%	**16**	**14**	**0.90**	17	16	1.48
80.01% to 90%	**8**	**10**	**1.24**	8	11	2.09
90.01% to 100%	**4**	**5**	**1.33**	4	6	2.62
Greater than 100%	*	**6**	**9.85**	1	8	11.70
Credit enhanced:(2)						
Primary MI & other(3)	**21**	**26**	**1.11**	20	26	1.95
Credit risk transfer(4)	**39**	**10**	**0.24**	32	8	0.42
Non-credit enhanced	**53**	**69**	**0.85**	60	69	1.27

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

(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, 2018 was 47%.

(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. For CAS and some lender risk-sharing transactions, this represents outstanding unpaid principal balance of the underlying loans on the single-family mortgage credit book, not the outstanding reference pool, as of the specified date. Loans included in our credit risk transfer transactions have all been acquired since 2012 and newer vintages typically have significantly lower delinquency rates than more seasoned loans.

Role of Servicers in Loss Mitigation

The efforts of our mortgage servicers are critical in keeping people in their homes and preventing foreclosures. We maintain 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, loan 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:

- 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 solution and foreclosure alternative 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. 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.

Home Retention Solutions

Loan modifications account for a significant majority of our home retention solutions. Characteristics of our loan modifications include:

- changes to the original mortgage terms such as product type, interest rate, amortization term, maturity date and/or unpaid principal balance;
- collection of less than the contractual amount due under the original loan, for many of our loan modifications; and
- 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.

Our primary loan modification program is currently the Flex Modification program, which offers payment relief for eligible borrowers, allowing forbearances of principal to an 80% mark-to-market LTV ratio, and targeting a 20% payment reduction. This program, which became available in October 2017, replaced HAMP as well as our proprietary Standard and Streamlined Modification initiatives.

Approximately 35% of our modified loans that are performing included a reduction in the borrower’s interest rate that was fixed for an initial period and subject to one or more annual interest rate increases thereafter. See “Single-Family Portfolio Diversification and Monitoring—Mortgage Products with Rate Resets” for information on the timing of these interest rate resets.

We also offer forbearance for homeowners experiencing temporary hardship, like natural disasters and unemployment, to avoid delinquency and stay in their homes.

Foreclosure Alternatives

We 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
- 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.

The chart below displays the unpaid principal balance of our completed single-family loan workouts by type, as well as the number of loan workouts.

Loan Workout Activity
(Dollars in billions)

(1) Consists of loan modifications and completed repayment plans and forbearances. 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. Excludes trial modifications, loans to certain borrowers who have received bankruptcy relief that are classified as troubled debt restructurings, and repayment and forbearance plans that have been initiated but not completed. There were approximately 22,600 loans in a trial modification period as of December 31, 2018.

(2) Consists of short sales and deeds-in-lieu of foreclosure.

The increase in home retention solutions in 2018 was primarily driven by modifications and forbearances granted during 2018 to borrowers in areas affected by the 2017 hurricanes.

The table below displays the percentage of our single-family loan modifications completed during 2017 and 2016 that were current or paid off one year after modification and, for modifications completed during 2016, two years after modification.

Percentage of Single-Family Loan Modifications That Were Current or Paid Off at One and Two Years Post-Modification(1)

	2017				2016			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
One Year Post-Modification	61%	63%	65%	64%	63%	65%	66%	66%
Two Years Post-Modification					69	68	68	66

(1) Does not reflect loans currently in trial modifications.

Nonperforming Loan Sales

We also undertake efforts to manage our problem loans by selling our nonperforming loans. This problem loan management strategy is intended to reduce the number of seriously-delinquent loans, to stabilize neighborhoods and to reduce the severity of losses incurred on these loans. During 2018, we sold approximately 22,100 nonperforming loans with an aggregate unpaid principal balance of $4.0 billion.

REO Management

If a loan defaults, we acquire the home through foreclosure or a deed-in-lieu of foreclosure. The table below displays our foreclosure activity by region. Regional REO acquisition trends generally follow a pattern that is similar to, but lags, that of regional delinquency trends.

Single-Family REO Properties

	For the Year Ended December 31,		
	2018	**2017**	**2016**
Single-family REO properties (number of properties):			
Beginning of period inventory of single-family REO properties[(1)]	**26,311**	38,093	57,253
Acquisitions by geographic area:[(2)]			
Midwest	**6,107**	8,478	12,379
Northeast	**6,460**	9,453	12,389
Southeast	**7,814**	10,860	16,977
Southwest	**3,713**	5,133	6,984
West	**2,001**	2,691	4,780
Total REO acquisitions [(1)]	**26,095**	36,615	53,509
Dispositions of REO	**(32,250)**	(48,397)	(72,669)
End of period inventory of single-family REO properties[(1)]	**20,156**	26,311	38,093
Carrying value of single-family REO properties (dollars in millions)	**$2,503**	$3,112	$4,372
Single-family foreclosure rate[(3)]	**0.15 %**	0.21 %	0.31 %
REO net sales prices to unpaid principal balance[(4)]	**77 %**	75 %	74 %
Short sales net sales price to unpaid principal balance[(5)]	**77 %**	75 %	74 %

(1) Includes acquisitions through foreclosure and 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 7 to the Risk Characteristics of Single-Family Conventional Business Volume and Guaranty Book of Business table 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 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 includes borrower relocation incentive payments and subordinate lien(s) negotiated payoffs.

The decrease in single-family REO properties in 2018 compared with 2017 and in 2017 compared with 2016 was primarily due to a reduction in REO acquisitions from serious delinquencies aged greater than 180 days driven by improved loan performance and the continued sale of nonperforming loans in 2017 and in 2018.

We market and sell the majority of our foreclosed properties 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 some cases, we use alternative methods of disposition, including selling homes to municipalities, other public entities or non-profit organizations, and selling properties through public auctions.

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.

As shown in the chart below, a significant portion of our REO properties are unable to be marketed at any given time because the properties are occupied, under repair, or are subject to state or local redemption or confirmation periods, which delays the marketing and disposition of these properties.

Other Single-Family Credit Information

Credit Performance and Concentration Metrics

The amount of credit income or losses we realize in a given period is driven by foreclosures, pre-foreclosure sales, REO activity, mortgage loan redesignations and charge-offs pursuant to the provisions of the Advisory Bulletin. The table below displays the components of our single-family credit performance metrics, as well as our single-family initial charge-off severity rate. Our credit performance metrics are not defined terms within GAAP and may not be calculated in the same manner as similarly titled measures reported by other companies. We believe these credit performance metrics may be useful to investors because they are presented as a percentage of our guaranty book of business and have historically been used by analysts, investors and other companies within the financial services industry.

Single-Family Credit Performance Metrics

	For the Year Ended December 31,					
	2018		**2017**		**2016**	
	Amount	**Ratio[1]**	**Amount**	**Ratio[1]**	**Amount**	**Ratio[1]**
	(Dollars in millions)					
Charge-offs, net of recoveries	**$(1,853)**	**6.4 bps**	$(2,423)	8.3 bps	$(2,685)	9.3 bps
Foreclosed property expense	**(604)**	**2.1**	(540)	1.9	(653)	2.3
Credit losses and credit loss ratio	**$(2,457)**	**8.5 bps**	$(2,963)	10.2 bps	$(3,338)	11.6 bps
Single-family initial charge-off severity rate[2]		**11.0%**		15.3%		19.7%

(1) Basis points are calculated based on the amount of each line item divided by the average single-family conventional guaranty book of business during the period.

(2) Rate is calculated as the initial charge-off amount divided by the average defaulted unpaid principal balance. The rate includes charge-offs pursuant to the provisions of the Advisory Bulletin and excludes any costs, gains or losses associated with REO after initial acquisition through final disposition.

Our single-family credit losses and credit loss ratio decreased in 2018 compared with 2017 primarily due to lower charge-off expenses from reduced foreclosures and foreclosure alternatives and improved severities, as well as an expansion at the beginning of 2017 of the charge-off criteria for non-liquidated loans pursuant to the provisions of the Advisory Bulletin. The decline in single-family credit losses and credit loss ratio in 2018 was partially offset by higher charge-offs related to the redesignation of single-family loans from HFI to HFS.

Our single-family credit losses and credit loss ratio decreased in 2017 compared with 2016 primarily due to lower charge-offs as a result of lower serious delinquencies aged greater than 180 days.

Our single-family initial charge-off severity rates declined in 2018 compared with 2017, and in 2017 compared with 2016, primarily due to lower LTV ratios on charged-off loans driven by continued home price appreciation.

The table below displays concentrations of our single-family credit losses based on geography, credit characteristics and loan vintages.

Single-Family Credit Loss Concentration Analysis

	Percentage of Single-Family Conventional Guaranty Book of Business Outstanding[(1)] As of December 31,		Percentage of Single-Family Credit Losses[(2)] As of December 31,	
	2018	**2017**	**2018**	**2017**
Geographical distribution:				
California	**19%**	19%	**11%**	8%
Florida	**6**	6	**12**	10
Illinois	**4**	4	**10**	9
New Jersey	**4**	4	**10**	14
New York	**5**	5	**8**	12
All other states	**62**	62	**49**	47
Select higher-risk products:				
Alt-A loans	**2**	2	**22**	22
Vintages:[(3)]				
2004 and prior	**3**	4	**14**	12
2005 - 2008	**5**	6	**66**	65
2009 - 2018	**92**	90	**20**	23

(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) 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 above, the majority of our credit losses in 2018 continued to be driven by loans originated in 2005 through 2008. The percentage of credit losses for loans in California and Florida was higher in 2018 compared with 2017 because a large portion of the nonperforming and reperforming loans that were redesignated as HFS and charged off in 2018 were located in these states. The percentage of our credit losses for loans in New Jersey and New York was lower in 2018 compared with 2017, because we charged off a greater portion of excessively delinquent loans in these states in 2017. The percentage of credit losses attributable to Alt-A loans remained flat in 2018 compared with 2017. 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 loans to continue to be minimal in future periods and continue to decrease as a percentage of the book of business gradually over time.

Single-Family Loss Reserves

Our single-family loss reserves provide for an estimate of credit losses incurred in our single-family guaranty book of business, including concessions we granted borrowers upon modification of their loans. The table below summarizes the changes in our single-family loss reserves.

Single-Family Loss Reserves

	For the Year Ended December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Changes in loss reserves:					
Beginning balance	**$(19,155)**	$(23,639)	$(28,325)	$(36,383)	$(44,705)
Benefit for credit losses	**3,313**	2,090	2,092	688	3,850
Charge-offs[1]	**2,176**	2,868	3,323	9,822	6,513
Recoveries	**(323)**	(445)	(638)	(1,256)	(1,436)
Other	**(18)**	(29)	(91)	(1,196)	(605)
Ending balance	**$(14,007)**	$(19,155)	$(23,639)	$(28,325)	$(36,383)
Loss reserves as a percentage of single-family:					
Guaranty book of business	**0.49%**	0.65%	0.83%	1.00%	1.28%
Recorded investment in nonaccrual loans	**44.24**	40.80	53.67	58.02	56.73
Certain higher risk loan categories as a percentage of single-family loss reserves:					
2005-2008 loan vintages	**76%**	78%	81%	81%	81%
Alt-A loans	**20**	22	23	23	25

(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.

Troubled Debt Restructurings

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. Such TDRs and other single-family loans that have been individually evaluated for impairment generally have a higher associated loan loss reserve than loans that have been collectively evaluated for impairment.

The table below displays the unpaid principal balance of single-family HFI loans classified as TDRs.

Single-Family TDR Activity on HFI Loans

	For the Year Ended December 31,		
	2018	**2017**	**2016**
	(Dollars in millions)		
Beginning balance	**$143,843**	$165,960	$182,655
New TDRs	**14,867**	9,847	9,609
Foreclosures[1]	**(2,446)**	(3,519)	(4,098)
Payoffs and other reductions	**(32,313)**	(28,445)	(22,206)
Ending balance	**$123,951**	$143,843	$165,960

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

In addition, we had single-family HFS loans classified as TDRs with an unpaid principal balance of $2.1 billion as of December 31, 2018, $2.6 billion as of December 31, 2017 and $2.5 billion as of December 31, 2016.

The table below displays the single-family loans classified as TDRs that were on accrual status and single-family loans on nonaccrual status. The table includes our recorded investment in HFI and HFS single-family 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.”

Single-Family TDRs on Accrual Status and Nonaccrual Loans

	As of December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
TDRs on accrual status	**$98,320**	$110,043	$127,353	$140,588	$144,649
Nonaccrual loans	**31,658**	46,945	44,047	48,821	64,136
Total TDRs on accrual status and nonaccrual loans	**$129,978**	$156,988	$171,400	$189,409	$208,785
Accruing on-balance sheet loans past due 90 days or more[(1)]	**$228**	$353	$402	$499	$585

	For the Year Ended December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Interest related to on-balance sheet TDRs on accrual status and nonaccrual loans:					
Interest income forgone[(2)]	**$2,000**	$3,009	$4,102	$5,193	$5,943
Interest income recognized[(3)]	**5,292**	5,705	5,996	6,493	6,808

(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 consist 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.

(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) Includes primarily amounts accrued while the loans were performing and cash payments received on nonaccrual loans.

Multifamily Business

Multifamily Primary Business Activities

Providing Liquidity for Multifamily Mortgage Loans

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 acquired from these lenders into Fannie Mae MBS, which are sold to investors or dealers. 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 through other activities, such as issuing structured MBS backed by Fannie Mae multifamily MBS and buying and selling multifamily agency mortgage-backed securities. In addition, in 2018 the Multifamily business resumed investing in LIHTC projects to help support and preserve the supply of affordable housing.

Key Characteristics of the Multifamily Business

The Multifamily business has a number of key characteristics that distinguish it from our Single-Family business.

- *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.
- *Borrowers and sponsors:* 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 expected returns in excess of their original contribution of equity. 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 borrowers are typically single-asset entities, with the property as their only asset, in evaluating a borrowing entity we also evaluate its 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 exposures to lenders and Fannie Mae.

- *Recourse:* Multifamily loans are generally non-recourse to the borrowers.
- *Lenders:* During 2018, we executed multifamily transactions with 30 lenders. Of these, 25 lenders delivered loans to us under our DUS program described below. 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 $11 million.
- *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:* To protect against prepayments, most multifamily Fannie Mae loans and MBS impose prepayment premiums, primarily yield maintenance, consistent with standard commercial investment terms.

Delegated Underwriting and Servicing

Fannie Mae's DUS program, which was initiated in 1988, is a unique business model in the commercial mortgage industry. 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. DUS lenders are pre-approved and delegated the authority to underwrite and service loans on behalf of Fannie Mae in accordance with our standards and requirements. Delegation permits lenders to respond to customers more rapidly, as the lender generally has the authority to approve a loan within prescribed parameters. 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.

Multifamily Mortgage Servicing

Multifamily mortgage servicing is typically performed by the lenders who sell the mortgages to us. Because of our loss-sharing arrangements with our multifamily lenders, transfers of multifamily servicing rights are infrequent, and we monitor our servicing relationships and enforce our right to approve servicing transfers. As a seller-servicer, the lender is responsible for ongoing evaluation of the financial condition of properties and property owners, administering various types of loan and property-level agreements (including agreements covering replacement reserves, completion or repair, and operations and maintenance), as well as conducting routine property inspections.

Multifamily Credit Risk and Credit Loss Management

Our Multifamily business:

- 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.
- Enters into transactions that transfer an additional portion of Fannie Mae's credit risk on some of the loans in our multifamily guaranty book of business.
- Works to maintain the credit quality of the multifamily book of business, prevent foreclosures, reduce costs of defaulted multifamily loans, manage our REO inventory, and pursue contractual remedies from lenders, servicers, borrowers, and providers of credit enhancement.

See "Multifamily Mortgage Credit Risk Management" for discussion of our strategies for managing credit risk and credit losses on multifamily loans.

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. We 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. Over 90% of the multifamily units we financed in 2018 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 need for smaller multifamily property financing and financing that serves low- and very low-income households.

- To meet the growing need for smaller multifamily property financing, we focus on the acquisition of small multifamily loans. Through January 2019, we focused on loans of up to $3 million ($5 million in high cost areas). As of December 31, 2018, small loans represented 39% of our multifamily guaranty book of business by loan count and 5% based on unpaid principal balance. In February 2019, we expanded our view of small multifamily loans to cover loans of up to $6 million in any area.
- 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 provide 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, 2018, affordable loans represented approximately 12% of our multifamily guaranty book of business, based on unpaid principal balance, including $11.1 billion in bond credit enhancements.

Multifamily Customers

Our multifamily lenders are principally mortgage banking companies, large diversified financial institutions, and banks. During 2018, we executed multifamily transactions with 30 lenders. During 2018, our top five multifamily lender customers, in the aggregate, accounted for approximately 49% of our multifamily business volume, compared with approximately 48% in 2017. Three of our customers each accounted for 10% or more of our multifamily business volume in 2018. Wells Fargo accounted for 12%, Walker & Dunlop accounted for 11%, and Berkadia accounted for 10% of our 2018 multifamily business volume.

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

Multifamily Competition

Our primary competitors for the acquisition of multifamily mortgage assets and issuance of multifamily mortgage-related securities are Freddie Mac, life insurers, U.S. banks and thrifts, other institutional investors, Ginnie Mae and private-label issuers of commercial mortgage-backed securities.

Competition to acquire mortgage assets is significantly affected by both our and our competitors' pricing, credit standards and loan structures, 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 applicable to us or our customers or investors. See "Business—Conservatorship, Treasury Agreements and Housing Finance Reform," "Business—Charter Act and Regulation," and "Risk Factors" for information on matters that could affect our business and competitive environment.

Multifamily Market Share

We remained a continuous source of liquidity in the multifamily market in 2018. We owned or guaranteed approximately 21% of the outstanding debt on multifamily properties as of September 30, 2018 (the latest date for which information is available).

Multifamily Mortgage Debt Outstanding[1]
(Dollars in trillions)

(1) The mortgage debt outstanding as of September 30, 2018 is based on the Federal Reserve's December 2018 mortgage debt outstanding release, the latest date for which the Federal Reserve has estimated mortgage debt outstanding for multifamily residences. Prior period amounts have been changed to reflect revised historical data from the Federal Reserve.

Multifamily Mortgage Market

National multifamily market fundamentals, which include factors such as vacancy rates and rents, remained relatively stable during most of 2018, 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.

- *Vacancy rates.* According to preliminary third-party data, the national multifamily vacancy rate for institutional investment-type apartment properties was an estimated 5.5% as of December 31, 2018, compared with an estimated 5.3% as of September 30, 2018 and 5.5% as of December 31, 2017. The national estimated multifamily vacancy rate remains below its estimated average rate of about 6% over the last 10 years.
- *Rents.* Effective rents continued to increase during most of 2018, although the rate of growth slowed. National asking rents increased by an estimated 2.8% in 2018 and remained flat during the fourth quarter of 2018, compared with an estimated increase of 0.8% in the third quarter of 2018.

An estimated 383,000 multifamily units were added to the nation's inventory in 2018 and demand remained steady for much of the year. 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 approximately 180,000 units in 2018, according to preliminary data from Reis, Inc., compared with approximately 187,000 units in 2017.

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 2018. It is estimated that approximately 454,000 new multifamily units will be completed in 2019. 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 2019. 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

The multifamily loans we acquired in 2018 had a strong overall credit risk profile, consistent with our acquisition policy and standards, which we describe in "Multifamily Mortgage Credit Risk Management—Multifamily Acquisition Policy and Underwriting Standards." Multifamily new business volume remained relatively flat in 2018 compared with 2017 driven by the sustained size of the multifamily mortgage market. For more information, see "Multifamily Acquisition Policy and Underwriting Standards." FHFA's 2018 conservatorship scorecard included an objective to maintain the dollar volume of new multifamily business at or below $35.0 billion, excluding certain targeted affordable and underserved market business segments. Our Multifamily business met this objective. Approximately 46% of our multifamily new business volume of $65.4 billion for 2018 counted toward FHFA's 2018 multifamily volume cap.

FHFA's 2019 conservatorship scorecard includes an objective to maintain the dollar volume of new multifamily business at or below $35.0 billion, excluding certain targeted affordable and underserved market business segments. As in prior years, FHFA stated that it 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 during the year as this could cause disruption in the market.

Multifamily New Business Volume
(Dollars in billions)

(1) Reflects unpaid principal balance of multifamily Fannie Mae MBS issued, multifamily loans purchased, and credit enhancements provided during the period. Excludes a transaction backed by a pool of single-family rental properties financed in the amount of $945 million during the second quarter of 2017.

Multifamily Fannie Mae MBS Issuances
(Dollars in billions)

(1) Excludes a transaction backed by a pool of single-family rental properties financed in the amount of $945 million during the second quarter of 2017.

(2) A portion of structured securities issuances may include MBS issuances in that same period.

Multifamily Business Financial Results

	For the Year Ended December 31,			Variance	
	2018	2017	2016	2018 vs. 2017	2017 vs. 2016
	(Dollars in millions)				
Net interest income	**$2,789**	$2,521	$2,285	$268	$236
Fee and other income	**529**	849	445	(320)	404
Net revenues	**3,318**	3,370	2,730	(52)	640
Fair value losses, net	**(89)**	(23)	(41)	(66)	18
Administrative expenses	**(428)**	(346)	(323)	(82)	(23)
Credit-related income (expense)[1]	**(17)**	(30)	72	13	(102)
Other income (expense)[2]	**(139)**	(337)	296	198	(633)
Income before federal income taxes	**2,645**	2,634	2,734	11	(100)
Provision for federal income taxes	**(432)**	(1,683)	(603)	1,251	(1,080)
Net income	**$2,213**	$951	$2,131	$1,262	$(1,180)

(1) Consists of the benefit (provision) for credit losses and foreclosed property income (expense).
(2) Consists of investment gains (losses), gains (losses) from partnership investments and other income (expenses).

Net interest income

Multifamily net interest income increased in 2018 compared with 2017 primarily due to increases in guaranty fee income driven by an increase in the average guaranty book of business.

Multifamily net interest income increased in 2017 compared with 2016 primarily due to increases in guaranty fee income driven by an increase in the average guaranty book of business as well as higher charged average guaranty fees.

Fee and other income

Fee and other income in all periods presented was primarily driven by yield maintenance fees resulting from prepayments. Variation in yield maintenance fee income from period to period is driven by the volume of prepayments, current interest rates, as well as the timing of the prepayment relative to the loan's contractual maturity date. All of these factors impact the fee due to us at the time of prepayment.

Fair value losses, net

Fair value losses in 2018 were primarily driven by losses on commitments to buy multifamily mortgage-related securities due to increasing interest rates resulting in decreasing prices during the commitment periods.

Fair value losses in 2017 and 2016 were primarily driven by losses on commitments to sell multifamily mortgage-related securities as a result of increases in prices during the commitment periods.

Credit-related income (expense)

We recognized lower credit-related expense in 2018 compared with 2017 primarily driven by an increase in the allowance for loan losses in 2017 due to the 2017 hurricanes.

The shift to credit-related expense in 2017 from credit-related income in 2016 was primarily driven by an increase in the allowance for loan losses, which included approximately $50 million in estimated losses from the 2017 hurricanes.

Multifamily Mortgage Credit Risk Management

The credit risk profile of our multifamily book of business is influenced by:

- the current and anticipated cash flows from the property;
- the type and location of the property;
- the condition and value of the property;
- the financial strength of the borrower;
- market trends; and
- the structure of the financing.

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.

Presentation of our multifamily guaranty book for credit statistics

To align with how we manage our credit risk, for purposes of the information reported below, we adjust our measurement of our multifamily guaranty book of business by using the unpaid principal balance of mortgage loans underlying Fannie Mae MBS instead of the unpaid principal balance of the MBS. These amounts differ primarily as a result of payments we receive on underlying loans that have not yet been remitted to the MBS holders. As measured for purposes of the information reported below, the following chart displays the unpaid principal balance of our multifamily guaranty book of business.

Multifamily Guaranty Book of Business (Dollars in billions)

In addition, we exclude from the multifamily credit statistics reported below approximately 1% of our multifamily guaranty book of business for which our loan level information was incomplete as of December 31, 2018 and 2017.

Multifamily Acquisition Policy and Underwriting Standards

Our Multifamily business is responsible for pricing and managing the credit risk on our multifamily guaranty book of business, with oversight from our Enterprise Risk Management division. 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. At the time of our acquisition of multifamily mortgage loans, we and our lenders rely on sound underwriting standards, which generally include, among other things, 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.

Multifamily Guaranty Book of Business Key Risk Characteristics

	As of December 31,		
	2018	**2017**	**2016**
Weighted average original LTV ratio	**66%**	67%	67%
Original LTV ratio greater than 80%	**1 %**	2 %	2 %
Original DSCR less than or equal to 1.10	**12%**	14%	14%

Transfer of Multifamily Mortgage Credit Risk

Lender risk-sharing is a cornerstone of our Multifamily business. We primarily transfer risk through our DUS program, which delegates to DUS lenders the ability to underwrite and service multifamily loans, in accordance with our standards and requirements. DUS lenders receive credit risk-related revenues for their respective portion of credit risk retained, and, in turn, are required to fulfill any loss sharing obligation. This aligns the interests of the lender and Fannie Mae from day one and throughout the life of the loan. Our DUS model typically results in our lenders sharing on a pro-rata or tiered basis approximately one-third of the credit risk on our multifamily loans. Lenders in the DUS program typically share in loan level credit losses in one of two ways:

- they share one-third of the losses on a pro rata basis with us; or
- they bear all losses up to the first 5% of the unpaid principal balance of the loan and then share with us any remaining losses up to a prescribed limit.

Loans delivered to us by DUS lenders and their affiliates represented 99% of our multifamily guaranty book of business as of December 31, 2018, compared with 98% as of December 31, 2017, and 97% as of December 31, 2016.

Non-DUS lenders typically share or absorb losses based on a negotiated percentage of the loan or the pool balance. These risk-sharing agreements not only transfer credit risk, but also better align our interests with those of the lenders.

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, 2018 and as of December 31, 2017.

Percentage of Multifamily Guaranty Book of Business with Lender Risk Sharing

To complement our lender-risk sharing program through our DUS model, we engage in multifamily CIRT transactions, pursuant to which we transfer a portion of Fannie Mae's mortgage credit risk on multifamily loans in our multifamily guaranty book of business to insurers or reinsurers. We retain an initial portion of losses on the loans in the pool and reinsurers cover losses above this retention amount up to a detachment point. We retain all losses above this detachment point. The insurance layer typically provides coverage for losses on the pool that are likely to occur only in a stressed economic environment.

In 2018, we completed our third and fourth multifamily CIRT transactions since the inception of the program, which covered multifamily loans with an unpaid principal balance of approximately $22 billion. As of December 31, 2018, 12% of the unpaid principal balance in our multifamily guaranty book was covered by a CIRT transaction. We plan to continue to transfer credit risk through multifamily CIRT transactions in the future and to explore other multifamily credit risk transfer options.

Multifamily Portfolio Diversification and Monitoring

Diversification within our multifamily 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 we use 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 these loans. The primary asset management responsibilities for our multifamily loans are performed by our DUS and other multifamily lenders. We periodically evaluate these lenders' 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 for which 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, 2018 and 2017. 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 three to six months, but in some cases may be longer.

Multifamily Problem Loan Management and Foreclosure Prevention

This section describes the following:

- delinquency statistics on our problem loans;
- our multifamily credit loss performance;
- multifamily loss reserves;
- troubled debt loan restructurings resulting from loan modifications; and
- REO management.

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 0.06% as of December 31, 2018 and 0.11% as of December 31, 2017. The decrease in the multifamily serious delinquency rate from December 31, 2017 to December 31, 2018 resulted primarily from a decrease in delinquent loans subject to forbearance agreements granted to borrowers in the areas affected by the 2017 hurricanes.

Multifamily Credit Performance Metrics

The table below displays the components of our multifamily credit performance metrics, as well as our multifamily initial charge-off severity rate.

Multifamily Credit Performance Metrics

	For the Year Ended December 31,		
	2018	**2017**	**2016**
	(Dollars in millions)		
Credit income (losses)[1]	**$(17)**	$19	$ 4
Credit (income) loss ratio[1][2]	**0.6 bps**	(0.7) bps	(0.2) bps
Multifamily initial charge-off severity rate[3]	**17.1 %**	4.5 %	14.9 %

(1) Credit income and credit income ratios are the result of recoveries on previously charged-off amounts.

(2) Basis points are calculated based on the amount of credit income (losses) divided by the average multifamily guaranty book of business during the period.

(3) Rate is calculated as the initial charge-off amount divided by the average defaulted unpaid principal balance. The rate includes charge-offs pursuant to the provisions of the Advisory Bulletin and excludes any costs, gains or losses associated with REO after initial acquisition through final disposition. Charge-offs are net of lender loss sharing agreements.

Multifamily Loss Reserves

The table below summarizes the changes in our multifamily loss reserves.

Multifamily Loss Reserves

	For the Year Ended December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Changes in loss reserves:					
Beginning balance	**$(245)**	$(196)	$(265)	$(404)	$(590)
Benefit (provision) for credit losses	**(4)**	(49)	63	107	114
Charge-offs	**4**	3	11	42	76
Recoveries	**—**	(3)	(6)	(4)	—
Other	**—**	—	1	(6)	(4)
Ending balance	**$(245)**	$(245)	$(196)	$(265)	$(404)
Loss reserves as a percentage of multifamily guaranty book of business	**0.08 %**	0.09 %	0.08 %	0.12 %	0.20 %

Troubled Debt Restructurings and Nonaccrual Loans

The table below displays the composition of multifamily loans classified as TDRs that were on accrual status and multifamily loans on nonaccrual status. The table includes our recorded investment in HFI and HFS multifamily 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."

Multifamily TDRs on Accrual Status and Nonaccrual Loans

	As of December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
TDRs on accrual status	**$55**	$87	$141	$376	$645
Nonaccrual loans	**492**	424	403	591	823
Total TDRs on accrual status and nonaccrual loans	**$547**	$511	$544	$967	$1,468

	For the Year Ended December 31,				
	2018	**2017**	**2016**	**2015**	**2014**
	(Dollars in millions)				
Interest related to on-balance sheet TDRs on accrual status and nonaccrual loans:					
Interest income forgone(1)	**$22**	$17	$21	$34	$2
Interest income recognized(2)	**3**	7	9	18	78

(1) 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.

(2) 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.

REO Management

The number of multifamily foreclosed properties held for sale remained low at 16 properties with a carrying value of $81 million as of December 31, 2018, compared with 11 properties with a carrying value of $66 million as of December 31, 2017.

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 and funding risk, which is the risk that we will not be able to meet our obligations when they come due, including the risk associated with the inability to access funding sources or manage fluctuations in funding levels.

Liquidity and funding 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 government-sponsored enterprise 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 sales of foreclosed real estate assets;
- funds from Treasury pursuant to the senior preferred stock purchase agreement;
- guaranty fees received on Fannie Mae MBS, including the TCCA fees collected by us on behalf of Treasury;

- payments received from mortgage insurance counterparties and other providers of credit enhancement;
- net receipts on derivative instruments;
- receipt of cash collateral; and
- borrowings we may make under a secured intraday funding line of credit or against mortgage-related securities and other investment securities we hold pursuant to repurchase agreements and loan agreements.

Our primary uses of funds 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;
- payments of TCCA fees to Treasury; and
- payments associated with our credit risk transfer programs.

Liquidity and Funding 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 status as a government-sponsored enterprise.

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 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, 2018, 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 "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 in conservatorship, we believe those plans may be difficult or impossible to execute under stressed conditions for a company of our size in our circumstances. See "Risk Factors" for a description of the risks associated with our ability to fund operations and 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. This discussion regarding debt funding 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.

Our debt securities are actively traded in the over-the-counter market. 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. We compete for low-cost debt funding with institutions that hold mortgage portfolios, including Freddie Mac and the FHLBs.

Our debt funding needs and debt funding activity may vary from period to period 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 limits on its size.

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. Until 2019, our debt limit under the senior preferred stock purchase agreement was subject to annual reductions. The limit was $346.1 billion in 2018 and for 2019 and later it is $300.0 billion. As of December 31, 2018, our aggregate indebtedness totaled $232.5 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.

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.

The chart and table below display information on outstanding short-term and long-term debt of Fannie Mae based on original contractual maturity. The total amount of debt of Fannie Mae decreased during 2018 primarily due to lower funding needs as our retained mortgage portfolio continued to decrease.

Selected Debt Information

	As of December 31,	
	2017	2018
	(Dollars in billions)	
Selected Weighted-Average Interest Rates[(1)]		
Interest rate on short-term debt	1.18 %	**2.29 %**
Interest rate on long-term debt, including portion maturing within one year	2.40 %	**2.83 %**
Interest rate on callable long-term debt	2.31 %	**2.95 %**
Selected Maturity Data		
Weighted-average maturity of debt maturing within one year (in days)	123	**163**
Weighted-average maturity of debt maturing in more than one year (in months)	57	**63**
Other Data		
Outstanding callable debt	$72.3	**$64.3**
Connecticut Avenue Securities debt[(2)]	$22.5	**$25.6**

(1) Outstanding debt amounts and weighted-average interest rates reported in this chart and table include the effects of discounts, premiums, other cost basis adjustments and 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 cost basis adjustments and fair value adjustments of $432 million and $788 million as of December 31, 2018 and 2017, respectively.

(2) Represents CAS debt issued prior to the implementation of our CAS REMIC structure in November 2018. See “Single-Family Business—Single-Family Mortgage Credit Risk Management— Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions” for information regarding our Connecticut Avenue Securities.

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.

For information on the maturity profile of our outstanding long-term debt for each of the years 2019 through 2023 and thereafter, see “Note 7, Short-Term and Long-Term Debt.”

Debt Funding Activity

The table below 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 each period represent the face amount of the debt at issuance and redemption.

The decrease in our issuances and payoffs of short- and long-term debt during 2018 compared with 2017 was primarily due to decreased funding needs as our retained mortgage portfolio decreased. Because our funding needs decreased, we did not replace all of our debt that paid off during the period with new issuances. The increase in our issuances and payoffs of short-term debt during 2017 compared with 2016 was driven by greater utilization of short-term notes with overnight maturities throughout 2017.

Activity in Debt of Fannie Mae

	For the Year Ended December 31,		
	2018	**2017**	**2016**
	(Dollars in millions)		
Issued during the period:			
Short-term:			
Amount	**$540,686**	$707,834	$588,082
Weighted-average interest rate	**1.63 %**	0.85 %	0.19 %
Long-term:[1]			
Amount	**$22,014**	$30,746	$118,516
Weighted-average interest rate	**3.07 %**	2.47 %	1.60 %
Total issued:			
Amount	**$562,700**	$738,580	$706,598
Weighted-average interest rate	**1.68 %**	0.92 %	0.42 %
Paid off during the period:[2]			
Short-term:			
Amount	**$549,184**	$709,446	$624,169
Weighted-average interest rate	**1.51 %**	0.79 %	0.22 %
Long-term:[1]			
Amount	**$58,497**	$80,513	$142,826
Weighted-average interest rate	**1.48 %**	2.44 %	1.97 %
Total paid off:			
Amount	**$607,681**	$789,959	$766,995
Weighted-average interest rate	**1.51 %**	0.96 %	0.54 %

(1) Includes credit risk-sharing securities issued as CAS debt. For information on our credit risk transfer transactions, see “Single Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and 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 influence our debt activity, affect the amount, mix and cost of our debt funding, reduce demand for our debt securities, increase our liquidity or roll over risk, or otherwise have a material adverse impact on our liquidity, including:

- changes or perceived changes in federal government support of our business;
- our status as a government-sponsored enterprise;
- 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 government-sponsored enterprise, are essential to maintaining our access to debt funding. See “Risk Factors” for a discussion of the risks we face relating to:

- the uncertain future of our company;
- our reliance on the issuance of debt securities to obtain funds for our operations and the relative cost to obtain these funds;
- our liquidity contingency plans;
- our credit ratings; and

- other factors that could adversely affect our ability to obtain adequate debt funding or otherwise negatively impact our liquidity, including the factors listed above.

Also see “Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Housing Finance Reform” for a description of recent actions and statements relating to housing finance reform by the Administration, Congress and FHFA.

The table below displays additional information for each category of our short-term debt based on original contractual terms.

Outstanding Short-Term Debt[1]

	2018	2017	2016
	(Dollars in millions)		
Federal funds purchased and securities sold under agreements to repurchase:			
Amount outstanding, as of December 31	**$—**	$—	$—
Weighted-average interest rate	**— %**	— %	— %
Average outstanding, during the year[2]	**$83**	$106	$209
Weighted-average interest rate	**1.08 %**	0.34 %	— %
Maximum outstanding, during the year[3]	**$1,500**	$1,138	$2,090
Total short-term debt of Fannie Mae:			
Amount outstanding, as of December 31	**$24,896**	$33,377	$34,995
Weighted-average interest rate	**2.29 %**	1.18 %	0.49 %
Average outstanding, during the year[2]	**$23,237**	$29,545	$51,061
Weighted-average interest rate	**1.73 %**	0.85 %	0.37 %
Maximum outstanding, during the year[3]	**$37,446**	$39,317	$67,444

(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

The table below 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. This table excludes certain contractual obligation transactions that could significantly affect our short- and long-term liquidity and capital resource needs. These transactions, which are listed below, are excluded because they involve future cash payments that are considered uncertain and may vary based upon future conditions.

- Future payments of principal and interest related to debt securities of consolidated trusts;
- Future payments associated with our CIRT and CAS REMIC transactions, because the amount and timing of such payments are contingent upon the occurrence of future credit and prepayment events on the related reference pool of mortgage loans and are therefore uncertain;
- Future payments related to our interest rate risk management derivatives that may require cash settlement in future periods, because the amount and timing of such payments are dependent upon items such as changes in interest rates; and
- Future payments on 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, 2018, see “Total Book of Business” and “Off-Balance Sheet Arrangements.”

Contractual Obligations

	Payment Due by Period as of December 31, 2018				
	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)	$207,178	$61,622	$74,251	$13,838	$57,467
Contractual interest on long-term obligations	36,813	5,322	8,214	6,456	16,821
Operating lease obligations(2)	826	52	116	109	549
Purchase obligations:					
Mortgage commitments(3)	46,227	46,227	—	—	—
Other purchase obligations(4)	181	90	89	2	—
Other liabilities reflected in the consolidated balance sheet(5)	1,349	960	360	15	14
Total contractual obligations	$292,574	$114,273	$83,030	$20,420	$74,851

(1) Represents the carrying amount of our long-term debt assuming payments are made in full at maturity. Amounts include a net unamortized discount, fair value adjustments and other cost basis adjustments of $413 million.

(2) Includes amounts related to office buildings and equipment leases.

(3) Includes on- and off-balance sheet commitments to purchase mortgage loans and mortgage-related securities.

(4) Includes unconditional purchase obligations that are subject to a cancellation penalty for certain telecommunications services, software and computer services, and other agreements.

(5) Includes unrecognized tax benefits, 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, Treasury Agreements and Housing Finance Reform—Treasury Agreements."

Other Investments Portfolio

The chart below displays information on the composition of our other investments portfolio. Consistent with our liquidity framework and practices, we hold highly liquid investments in our other investments portfolio, which we use to limit our exposure to market stress or liquidity disruptions. The balance of our other investments portfolio fluctuates as a result of changes in our cash flows, liquidity in the fixed income markets, and our liquidity risk management framework and practices.

Other Investments Portfolio
(Dollars in billions)

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. 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.

In June 2018, upon reexamining the terms of our subordinated debt, S&P revised its rating on our outstanding rated subordinated debt from "AA-" to "AA" and announced that it was withdrawing its rating on our subordinated debt program because the program is no longer active.

The table below displays the credit ratings issued by the three major credit rating agencies.

Fannie Mae Credit Ratings

	December 31, 2018		
	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.

Cash Flows

Year Ended December 31, 2018. Cash, cash equivalents and restricted cash decreased by $10.8 billion from $60.3 billion as of December 31, 2017 to $49.4 billion as of December 31, 2018. The decrease was primarily driven by cash outflows from (1) the purchase of Fannie Mae MBS from third parties, (2) the redemption of funding debt, which outpaced issuances due to lower funding needs, (3) the acquisition of delinquent loans out of our MBS trusts and (4) the net increase in federal funds sold and securities purchased under agreements to resell or similar arrangements.

Partially offsetting these cash outflows were primarily cash inflows from (1) the sale of Fannie Mae MBS to third parties, (2) proceeds from repayments and sales of loans of Fannie Mae and (3) the sale of our REO inventory.

Year Ended December 31, 2017. Cash, cash equivalents and restricted cash decreased by $1.9 billion from $62.2 billion as of December 31, 2016 to $60.3 billion as of December 31, 2017. The decrease was primarily driven by cash outflows from (1) the purchase of Fannie Mae MBS from third parties and (2) the redemption of funding debt, which outpaced issuances due to lower funding needs.

Partially offsetting these cash outflows were 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.

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 a discussion of our current and proposed capital requirements, see "Business—Charter Act and Regulation—GSE Act and Other Regulation—Capital."

Capital Activity

We received $3.7 billion from Treasury during the first quarter of 2018 pursuant to the senior preferred stock purchase agreement, which eliminated our net worth deficit as of December 31, 2017. A fourth quarter 2018 dividend of $4.0 billion on the senior preferred stock was declared by FHFA and subsequently paid by us to Treasury on December 31, 2018, resulting in aggregate senior preferred stock dividends paid in 2018 of $9.4 billion. The terms of our senior preferred stock provide for quarterly dividends to accumulate at a rate equal to our net worth less an applicable capital reserve amount, which was $3.0 billion for dividend periods in 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 expect to pay Treasury a first quarter 2019 dividend of $3.2 billion by March 31, 2019 based on our net worth of $6.2 billion as of December 31, 2018.

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 funding under our senior preferred stock purchase agreement is $113.9 billion. If we were to draw additional funds from Treasury under the agreement with respect to 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, Treasury Agreements and Housing Finance Reform—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 associated with the limit on our capital reserves.

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 the 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 off-balance sheet exposure to credit losses is primarily related to the unpaid principal balance of our unconsolidated Fannie Mae MBS and other financial guarantees. This exposure was $21.1 billion as of December 31, 2018 and $25.1 billion as of December 31, 2017.

We also have off-balance sheet exposure to losses from liquidity support transactions and partnership interests.

- Our total outstanding liquidity commitments to advance funds for securities backed by multifamily housing revenue bonds totaled $8.3 billion as of December 31, 2018 and $9.2 billion as of December 31, 2017. 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 other investments portfolio in excess of these commitments to advance funds.
- We make 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.
- Upon implementation of the Single Security Initiative in June 2019, we expect to resecuritize securities that are guaranteed by Freddie Mac. As part of these transactions, we will guarantee to the resecuritization trust that we will supplement amounts received from the underlying Freddie Mac-guaranteed securities as required to permit timely payment of principal and interest on the certificates issued by the resecuritization trust. Accordingly, these resecuritizations will increase our off-balance sheet exposure to the extent that the certificates issued by the resecuritization trust are held by third parties.

Risk Management

We manage the risks that arise from our business activities through our enterprise risk management program. Our risk management activities are based on principles aligned with the principles set forth by the Committee of Sponsoring Organizations of the Treadway Commission's ("COSO") Enterprise Risk Management ("ERM"): Integrating with Strategy and Performance framework.

We are exposed to the following major risk categories:

- ***Credit Risk***. Credit risk is the risk of loss arising from another party's failure to meet its contractual obligations. For financial securities or instruments, credit risk is the risk of not receiving principal, interest or other financial obligation on a timely basis. Our credit risk exposure exists primarily in connection with our total book of business and our institutional counterparties.
- ***Market Risk***. Market risk is the risk of loss resulting from changes in the economic environment. This includes interest rate risk, which is the risk that changes in interest rates will result in adverse changes in the value of our assets or liabilities or our future earnings. It also includes spread risk, which can result in losses from changes in the spreads between our mortgage assets and our debt and derivatives we use to hedge our position.
- ***Liquidity and Funding Risk***. Liquidity and funding risk is the risk to our financial condition and resilience associated with the inability to meet obligations when they come due, including risk associated with the inability to access funding sources or manage fluctuations in funding levels.
- ***Operational Risk***. Operational risk is the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events. Operational risk includes cyber/information security risk, third-party risk and model risk.

We are also exposed to these additional risk categories:

- ***Strategic Risk***. Strategic risk is the risk of loss resulting from an unsuccessful business plan or strategy. This risk is a function of the compatibility of the strategic goals, the business strategies developed to achieve those goals, the resources deployed, external market forces and the quality of implementation.
- ***Compliance Risk***. Compliance risk is the risk to our financial condition and resilience arising from violations of laws or regulations, or from nonconformance with prescribed practices, MBS trust terms, internal policies and procedures, or ethical standards. Compliance risk can result in fines, civil money penalties, payment of damages, and the voiding of contracts, as well as a diminished reputation.
- ***Reputational Risk***. Reputational risk is the risk that an action would result in substantial negative publicity regarding our business practices and may cause a decline in public perception and our customer base, costly litigation, revenue reductions, or a comprehensive loss, or otherwise be likely to cause negative publicity to us.

For a more detailed discussion of these and other risks that could materially adversely affect our business, results of operations, financial condition, liquidity and net worth, see "Risk Factors."

Components of Risk Management

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 Management Governance

We manage risk by using the industry standard "three lines of defense" structure. Our Board of Directors and management-level risk committees are also integral to our risk management program.

Mortgage Credit Risk Management

Mortgage credit risk arises from the risk of loss resulting from the failure of a borrower to make required mortgage payments. We are exposed to credit risk on our 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 have provided other credit enhancements on mortgage assets. For more information on our single-family credit risk management, see "Single-Family Business—Single-Family Mortgage Credit Risk Management." For a discussion of our multifamily mortgage credit risk management, see "Multifamily Business—Multifamily Mortgage Credit Risk Management."

Institutional Counterparty Credit Risk Management

Overview

Institutional counterparty credit risk is the risk of loss resulting from the failure of an institutional counterparty to fulfill its contractual obligations to us. Our primary exposure to institutional counterparty credit risk exists with our:

- credit guarantors, including mortgage insurers, reinsurers and multifamily lenders with risk sharing arrangements;
- mortgage sellers and servicers;
- financial institutions that issue investments included in our other investments portfolio; and
- derivatives counterparties.

We routinely enter into a high volume of transactions with counterparties in the financial services industry resulting in a significant credit concentration with respect to this industry. We also may have multiple exposures to particular counterparties, as many of our institutional counterparties perform several types of services for us. Accordingly, if one of these counterparties were to default on its obligations to us, it could harm our business and financial results in a variety of ways. Our overall objective in managing institutional counterparty credit risk is to maintain individual and portfolio-level counterparty exposures within acceptable ranges based on our risk-based rating system. We achieve this objective through the following:

- establishment and observance of counterparty eligibility standards appropriate to each exposure type and level;
- establishment of risk limits;
- requiring collateralization of exposures where appropriate; and
- exposure monitoring and management.

See "Risk Factors" for additional discussion of the risks to our business if one or more of our institutional counterparties fails to fulfill their contractual obligations to us.

Establishment and Observance of Counterparty Eligibility Standards

The institutions with which we do business vary in size, complexity and geographic footprint. Because of this, counterparty eligibility criteria vary depending upon the type and magnitude of the risk exposure incurred. We use a risk-based approach to assess the credit risk of our counterparties through regular examination of their financial statements, confidential communication with the management of those counterparties and regular monitoring of publicly available credit rating information. This and other information is used to develop proprietary credit rating metrics that we use to assess credit quality. Factors including corporate or third-party support or guaranties, our knowledge of the counterparty and its management, reputation, quality of operations and experience are also important in determining the initial and continuing eligibility of a counterparty.

Establishment of Risk Limits

Institutions are assigned a risk limit to ensure that our risk exposure is maintained at a level appropriate for the institution's credit assessment and the time horizon for the exposure, as well as to diversify exposure so that we adequately manage our concentration risk. A corporate risk limit is first established at the counterparty level for the aggregate of all activity and then is divided among our individual business units. Our business units may further subdivide limits among products or activities.

Collateralization of Exposures

We may require collateral, letters of credit or investment agreements as a condition to approving exposure to a counterparty. Collateral requirements are determined after a comprehensive review of the credit quality and the level of risk exposure of each counterparty. We may require that a counterparty post collateral in the event of an adverse event such as a ratings downgrade. Collateral requirements are monitored and adjusted daily.

Exposure Monitoring and Management

The risk management functions of the individual business units are responsible for managing the counterparty exposures associated with their activities within risk limits. An oversight team within the Chief Risk Office is responsible for establishing and enforcing corporate policies and procedures regarding counterparties, establishing corporate limits, and aggregating and reporting institutional counterparty exposure. We regularly update exposure limits for individual institutions and communicate changes to the relevant business units. We regularly report exposures against the risk limits to the Risk Policy and Capital Committee of the Board of Directors.

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. Our primary exposure associated with mortgage insurers is that they will fail to fulfill their obligations to reimburse us for claims under our insurance policies.

Actions we take to manage this risk include:

- Maintaining financial and operational eligibility requirements that an insurer must meet to become and remain a qualified mortgage insurer.
- Regularly monitoring our exposure to individual mortgage insurers and mortgage insurer credit ratings. Our monitoring of mortgage insurers includes in-depth financial reviews and analyses of the insurers' portfolios and capital adequacy under hypothetical stress scenarios.
- Requiring certification and supporting documentation annually from each mortgage insurer.

- Performing periodic reviews of mortgage insurers to confirm compliance with eligibility requirements and to evaluate their management, control and underwriting practices.

In describing our mortgage insurance coverage, “insurance in force” refers to the unpaid principal balance of single-family loans in our guaranty book of business covered under the applicable mortgage insurance policies. Our total mortgage insurance in force was $598.7 billion, or 21% of our single-family guaranty book of business, as of December 31, 2018, compared with $544.7 billion, or 19% of our single-family guaranty book of business, as of December 31, 2017.

“Risk in force” refers to the maximum potential loss recovery under the applicable mortgage insurance policies in force and is generally based on the loan level insurance coverage percentage and, if applicable, any aggregate pool loss limit, as specified in the policy. As of December 31, 2018, our total mortgage insurance risk in force was $152.8 billion, or 5% of our single-family guaranty book of business, compared with $138.5 billion, or 5% of our single-family guaranty book of business, as of December 31, 2017.

Our total mortgage insurance in force and risk in force excludes insurance coverage provided by federal government entities and credit insurance obtained through CIRT deals.

The charts below display our mortgage insurer counterparties that provided approximately 10% or more of the risk in force mortgage insurance coverage on the single-family loans in our guaranty book of business.

Mortgage Insurer Concentration[1]

Arch Capital Group Ltd.

Radian Guaranty, Inc.

Mortgage Guaranty Insurance Corp.

Genworth Mortgage Insurance Corp.[2]

Essent Guaranty, Inc.

Others

(1) Insurance coverage amounts provided for each counterparty may include coverage provided by affiliates and subsidiaries of the counterparty.

(2) Genworth Financial, Inc., the ultimate parent company of Genworth Mortgage Insurance Corp., is in the process of being acquired by China Oceanwide Holdings Group Co., Ltd. We have approved the acquisition subject to specified conditions, including Genworth Financial, Inc. receiving all required and outstanding regulatory approvals. Upon acquisition, Genworth Mortgage Insurance Corp. will continue to be subject to our ongoing review and private mortgage insurer eligibility requirements.

Of our total risk in force coverage, 3% as of December 31, 2018, compared with 4% as of December 31, 2017, was held with three mortgage insurers that are in run-off, and therefore are no longer approved to write new insurance with us. 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.

FHFA’s 2018 conservatorship scorecard directed Fannie Mae and Freddie Mac to evaluate the companies’ existing private mortgage insurer eligibility requirements (“PMIERs”) and consider whether changes or updates would be appropriate. The PMIERs set the standards and guidelines that a private mortgage insurer must meet and maintain to be an approved insurer eligible to write mortgage insurance on loans acquired by Fannie Mae. The PMIERs are designed to ensure that mortgage insurers have sufficient liquid assets to pay all claims under a hypothetical future stress scenario. At FHFA’s direction, we and Freddie Mac completed our analysis of the PMIERs and, after consulting with our mortgage insurer counterparties, published revised PMIERs in September 2018. The revised PMIERs include certain changes to the risk-based asset requirements, enhancements to the treatment of approved risk transfer transactions, and adjustments to risk transfer credit arising from counterparty risk associated with reinsurance transactions. Many of the changes contained in the update were previously announced through guidance. The revised PMIERs will become effective on March 31, 2019 for existing approved private mortgage insurers and are effective immediately for any new mortgage insurer applicant.

Reinsurers

We use CIRT deals to transfer credit risk on a pool of loans to an insurance provider that retains the risk, or to an insurance provider that simultaneously cedes all of its risk to one or more reinsurers. In CIRT transactions, we select the insurance providers and approve the allocation of coverage that may be simultaneously transferred to reinsurers by a direct provider of our CIRT insurance coverage. We take certain steps to increase the likelihood that we will recover on the claims we file with the insurers, including the following:

- In our approval and selection of CIRT insurers and reinsurers, we take into account the financial strength of those companies and the concentration risk that we have with those counterparties.
- We monitor the financial strength of CIRT insurers and reinsurers to confirm compliance with our requirements and to minimize potential exposure. Changes in the financial strength of an insurer or reinsurer may impact our future allocation of new CIRT insurance coverage to those providers. In addition, a material deterioration of the financial strength of a CIRT insurer or reinsurer may permit us to terminate existing CIRT coverage pursuant to terms of the CIRT insurance policy.
- We require a portion of the insurers' or reinsurers' obligations in a CIRT transaction to be collateralized with highly-rated liquid assets held in a trust account. The required amount of collateral is initially determined according to the ratings of the 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.

The charts below display the concentration of our credit risk exposure to our top five CIRT counterparties, measured by maximum liability to us, excluding the benefit of collateral we hold to secure the counterparties' obligations.

CIRT Counterparty Concentration

Top 5
Others

- As of December 31, 2018, our CIRT counterparties had a maximum liability to us of $7.7 billion.
- As of December 31, 2018, $2.2 billion in liquid assets securing CIRT counterparties' obligations were held in trust accounts.
- Our top five CIRT counterparties had a maximum liability to us of $3.7 billion as of December 31, 2018, compared with $3.1 billion as of December 31, 2017.

Our CIRT counterparty credit concentration decreased in 2018 as we attracted and expanded participation with additional approved reinsurers that wrote us new CIRT coverage. For information on our credit risk transfer transactions, see "Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk—Credit Risk Transfer Transactions" and "Multifamily Business—Multifamily Mortgage Credit Risk Management—Transfer of Multifamily Mortgage Credit Risk."

Multifamily Lenders with Risk Sharing

We enter into risk sharing agreements with multifamily 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 multifamily loans was $71.8 billion as of December 31, 2018, compared with $63.4 billion as of December 31, 2017. As of December 31, 2018 and 2017, 44% and 43% of our maximum potential loss recovery on multifamily loans was from four DUS lenders.

As noted above in "Multifamily Business—Multifamily Mortgage Credit Risk Management—Transfer of Multifamily Mortgage Credit Risk," 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, 2018, approximately 33% 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, compared with approximately 34% as of December 31, 2017. Given the recourse nature of the DUS program, DUS 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.

Mortgage Servicers and Sellers

Mortgage Servicers

The primary risk associated with mortgage servicers that service the loans in our guaranty book of business is that they will fail to fulfill their servicing obligations. See "Single-Family Business—Single-Family Primary Business Activities—Single-Family Mortgage Servicing" and "Multifamily Business—Multifamily Primary Business Activities—Multifamily Mortgage Servicing" for more discussion on the services performed by our mortgage servicers.

A servicing contract breach could result in credit losses for us or could cause us to incur the cost of finding a replacement servicer. 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. See "Risk Factors" for a discussion of additional risks to our business and financial results associated with mortgage servicers.

We mitigate these risks in several ways, including:

- establishing minimum standards and financial requirements for our servicers;
- monitoring financial and portfolio performance as compared with peers and internal benchmarks; and
- for our largest mortgage servicers, conducting periodic on-site and financial reviews to confirm compliance with servicing guidelines and mortgage servicing performance.

We may take one or more of the following actions to mitigate our credit exposure to mortgage servicers that present a higher risk:

- require a guaranty of obligations by higher-rated entities;
- transfer exposure to third parties;
- require collateral;
- establish more stringent financial requirements;
- work on-site with underperforming major servicers to improve operational processes; and
- suspend or terminate the selling and servicing relationship if deemed necessary.

A large portion of our single-family guaranty book is serviced by non-depository servicers, particularly our delinquent single-family loans. Compared with depository financial institutions, these institutions pose additional risks to us because they may not have the same financial strength or operational capacity, or be subject to the same level of regulatory oversight, as our largest mortgage servicer counterparties, which are mostly depository institutions.

The charts below display the percentage of our single-family guaranty book of business serviced by our top five depository single-family mortgage servicers and top five non-depository single-family mortgage servicers.

Single-Family Mortgage Servicer Concentration

Top 5 non-depository servicers
Top 5 depository servicers
Others

- As of December 31, 2018 and 2017, Wells Fargo, N.A., together with its affiliates, serviced approximately 18% of our single-family guaranty book of business.

The charts below display the percentage of our multifamily guaranty book of business serviced by our top five multifamily mortgage servicers.

Multifamily Mortgage Servicer Concentration

Top 5
Others

- As of December 31, 2018 and 2017, Wells Fargo, N.A. and Walker & Dunlop, LLC each serviced over 10% of our multifamily guaranty book of business.

Repurchase Requests

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. In addition, 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. 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. See "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.

Counterparty Credit Exposure of Investments Held in our Other Investments Portfolio

The primary credit exposure associated with investments held in our other investments portfolio is that issuers will not repay principal and interest in accordance with the contractual terms. 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. We believe the risk of default is low because our other investments portfolio consists of instruments that are broadly traded in the financial markets including: cash and cash equivalents, securities purchased under agreements to resell or similar arrangements, and U.S. Treasury securities.

As of December 31, 2018, our other investments portfolio totaled $94.0 billion and included $35.5 billion of U.S. Treasury securities. As of December 31, 2017, our other investments portfolio totaled $80.8 billion and included $29.2 billion of U.S. Treasury securities. We mitigate our risk by monitoring the credit risk position of our other investments portfolio. As of December 31, 2018, we held $8.0 billion in overnight unsecured deposits with six financial institutions, compared with $5.3 billion held with four financial institutions as of December 31, 2017. The short-term credit ratings for each of these financial institutions by S&P, Moody's and Fitch were at least A-1 or the Moody's or Fitch equivalent of A-1.

See "Liquidity and Capital Management—Liquidity Management—Other Investments Portfolio" for more information on our other investments portfolio.

Derivative Counterparty Credit Exposure

The primary credit exposure that we have on a derivative transaction is that a counterparty will default on payments due, which could result in us having to acquire a replacement derivative from a different counterparty at a higher cost or we may be unable to find a suitable replacement. Our derivative counterparty credit exposure relates principally to interest rate derivative contracts. 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 interest rate swaps to a derivatives clearing organization. We refer to our derivative transactions made pursuant to bilateral contracts as our over-the-counter ("OTC") derivative transactions and our derivative transactions accepted for clearing by a derivatives clearing organization as our cleared derivative transactions.

Actions we take to manage our derivative counterparty credit exposure relating to our OTC derivative transactions include:

- Entering into enforceable master netting arrangements with these counterparties, which allow us to net derivative assets and liabilities with the same counterparty; and
- Requiring counterparties to post collateral, which includes cash, U.S. Treasury securities, agency debt and agency mortgage-related securities.

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.

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 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.

As of December 31, 2018 and 2017, we had thirteen 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 OTC counterparties, and the highest concentration by total outstanding notional amount was approximately 8% as of December 31, 2018 and 2017.

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 to credit loss on derivative instruments was $57 million as of December 31, 2018 and $21 million as of December 31, 2017.

See “Note 8, Derivative Instruments” and “Note 14, Netting Arrangements” for additional information on our derivative contracts as of December 31, 2018 and 2017.

Other Counterparties

Counterparty Credit Exposure arising from the Single Security Initiative

The Single Security Initiative will increase our credit exposure to Freddie Mac, as investors will be able to commingle Fannie Mae UMBS and Freddie Mac UMBS in resecuritizations. When we resecuritize Freddie Mac UMBS, our guaranty of principal and interest would extend to the underlying Freddie Mac UMBS. For more information on this increased credit risk exposure to Freddie Mac, see the discussion of the Single Security Initiative in “Risk Factors—GSE and Conservatorship Risk.”

We describe below some other counterparties to which we have credit exposure in the ordinary course of business.

Custodial Depository Institutions

Our mortgage servicer counterparties are required by our Servicing Guide to use custodial depository institutions to hold remittances of borrower payments of principal and interest on our behalf. If a custodial depository institution were to fail while holding such remittances, 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.

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.

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. We are also the beneficiary of financial guarantees on loans and securities provided by Freddie Mac, the federal government and its agencies. See “Note 13, Concentrations of Credit Risk—Other Concentrations” for a further discussion of our exposure to financial guarantors.

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.

The MERS System

The MERS® System is an electronic registry that is widely used by participants in the mortgage finance industry to track servicing rights and ownership of loans in the United States. A large portion of the loans we own or guarantee are registered and tracked in the MERS System. If we are unable to use the MERS System, or if our use of the MERS System adversely affects our ability to enforce our rights with respect to our loans registered and tracked in the MERS System, it could create operational and legal risks for us and increase the costs and time it takes to record loans or foreclose on loans.

Market Risk Management, Including Interest Rate Risk Management

We are subject to market risk, which includes interest rate risk and spread risk. These risks arise from our mortgage asset investments. Interest rate risk is the risk that changes in interest rates will result in adverse changes in the value of our assets or liabilities or our future earnings. Spread risk can result from changes in the spread between our mortgage assets and our debt and derivatives we use to hedge our position.

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:

- asset selection and structuring (that is, by identifying or structuring mortgage assets with attractive prepayment and other risk characteristics);
- issuing a broad range of both callable and non-callable debt instruments; and
- using interest-rate derivatives.

We have not actively managed or hedged our spread 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; other investments portfolio; our outstanding debt of Fannie Mae that is used to fund the retained mortgage portfolio assets 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.

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 or a seller to sell an asset, in each case 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

1-year rate 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.

The table below 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. The table below 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, 2018 and 2017.

The sensitivity measures displayed in the table below, 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:

- the quarterly disclosure is expanded to include the sensitivity results for larger rate level shocks of positive or negative 100 basis points;
- 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
- 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.

Interest Rate Sensitivity of Net Portfolio to Changes in Interest Rate Level and Slope of Yield Curve

	As of December 31,[1][2]	
	2018	**2017**
	(Dollars in millions)	
Rate level shock:		
-100 basis points	**$(286)**	$(44)
-50 basis points	**(119)**	(21)
+50 basis points	**48**	(29)
+100 basis points	**29**	(122)
Rate slope shock:		
-25 basis points (flattening)	**(7)**	(17)
+25 basis points (steepening)	**6**	17

	For the Three Months Ended December 31[1][3]					
	2018			**2017**		
	Duration Gap	**Rate Slope Shock 25 bps**	**Rate Level Shock 50 bps**	**Duration Gap**	**Rate Slope Shock 25 bps**	**Rate Level Shock 50 bps**
		Market Value Sensitivity			**Market Value Sensitivity**	
	(In years)	**(Dollars in millions)**		**(In years)**	**(Dollars in millions)**	
Average	**(0.01)**	**$(8)**	**$(65)**	0.02	$(11)	$(48)
Minimum	**(0.07)**	**(18)**	**(119)**	(0.01)	(18)	(112)
Maximum	**0.05**	**(1)**	**(40)**	0.06	—	(14)
Standard deviation	**0.02**	**4**	**17**	0.02	5	23

(1) Computed based on changes in U.S. LIBOR interest rates swap curve.
(2) Measured on the last business 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 years in the periods presented, the convexity exposure was the primary driver of the market value sensitivity of our net portfolio as of December 31, 2018 and 2017. In addition, the convexity exposure may result in similar market value sensitivities for positive and negative interest rate shocks of the same magnitude.

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. The table below displays an example of how derivatives impacted the net market value exposure for a 50 basis point parallel interest rate shock.

Derivative Impact on Interest Rate Risk (50 Basis Points)

	As of December 31,[1]	
	2018	**2017**
	(Dollars in millions)	
Before derivatives	**$(535)**	$(520)
After derivatives	**48**	(29)
Effect of derivatives	**583**	491

(1) Measured on the last business day of each period presented.

Liquidity and Funding Risk Management

See "Liquidity and Capital Management" for a discussion of how we manage liquidity and funding risk.

Operational Risk Management

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people or systems, or from external events. Our corporate operational risk framework aligns with our Enterprise Risk policy, as well as the COSO Enterprise Risk Management framework, and has evolved based on the changing needs of our businesses and FHFA regulatory guidance. The Operational Risk Management group is responsible for overseeing and monitoring compliance with our operational risk program's requirements. Operational Risk Management works in conjunction with other second line of defense teams, such as Compliance and Ethics, to oversee and aggregate the full range of operational risks, including fraud, resiliency, business interruptions, processing errors, damage to physical assets, workplace safety, and employment practices. To quantify our operational risk exposure, we rely on the Basel Standardized Approach, which is based on a percentage of gross income. In addition, where appropriate, we purchase insurance policies to mitigate the impact of operational losses.

See "Risk Factors" for more information regarding our operational risk and "Risk Management" for more information regarding our governance of operational risk management.

Cybersecurity Risk Management

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 and from time to time we have been, and likely will continue to be, the target of attempted cyber attacks and other information security threats. These risks are an unavoidable result of being in business, and managing these risks is part of our business activities.

We have developed and continue to enhance our cybersecurity risk management program to protect the security of our computer systems, software, networks and other technology assets against unauthorized attempts to access confidential information or to disrupt or degrade business operations. Our cybersecurity risk management program aligns to the COSO Enterprise Risk Management framework, the National Institute of Standards and Technology Framework for Improving Critical Infrastructure Cybersecurity, and has evolved based on the changing needs of our business, the evolving threat environment and FHFA regulatory guidance. Our cybersecurity risk management program extends to oversight of third parties that could be a source of cybersecurity risk, including customers that use our systems and third-party service providers. We examine the effectiveness and maturity of our cyber defenses through various means, including internal audits, targeted testing, incident response exercises, maturity assessments and industry benchmarking. We inform our Board of Directors on a regular basis of our cybersecurity posture, policies and practices, as well as our prioritization of cybersecurity investments. We continue to strengthen our partnerships with the appropriate government and law enforcement agencies and with other businesses and cybersecurity services in order to understand the full spectrum of cybersecurity risks in the environment, enhance our defenses and improve our resiliency against cybersecurity threats. We also have obtained insurance coverage relating to cybersecurity risks. To date, we have not experienced any material losses relating to cyber attacks.

Despite our efforts to ensure the integrity of our software, computers, systems and information, we may not be able to anticipate, detect or recognize threats to our systems and assets, or to implement effective preventive measures against all cyber threats, especially because the techniques used are increasingly sophisticated, change frequently, are complex, and are often not recognized until launched. See "Risk Factors" for additional discussion of cybersecurity risks to our business.

Model Risk Management

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.

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 our 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 allowance for loan losses.

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 15, 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 15, Fair Value."

Allowance for Loan Losses

We maintain an allowance for loan losses for loans classified as held for investment, including both loans held in our portfolio and loans held in consolidated Fannie Mae MBS trusts. This amount represents probable losses incurred related to loans on our consolidated balance sheets, 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. Our allowance for loan losses consists 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 and benchmarks, 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. 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 on these 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, in which case we measure impairment the same way we measure it for other individually impaired multifamily loans.

Impact of Future Adoption of New Accounting Guidance

We identify and discuss the expected impact on our consolidated financial statements of recently issued accounting guidance in "Note 1, Summary of Significant Accounting Policies."

Glossary of Terms Used in This Report

Terms used in this report have the following meanings, unless the context indicates otherwise.

"Acquired credit-impaired loans" refers to loans we have acquired for which there is evidence of credit deterioration since origination and for which it is probable we will not be able to collect all of the contractually due cash flows. We record our net investment in such loans at the lower of the acquisition cost of the loan or the estimated fair value of the loan at the date of acquisition. Typically, loans we acquire from our unconsolidated MBS trusts pursuant to our option to purchase upon default meet these criteria. Because we acquire these loans from our MBS trusts at par value plus accrued interest, to the extent the par value of a loan exceeds the estimated fair value at the time we acquire the loan, we record the related fair value loss as a charge against the "Reserve for guaranty losses."

"Advisory Bulletin" refers to 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."

"Agency mortgage-related securities" refers to mortgage-related securities issued by Fannie Mae, Freddie Mac and Ginnie Mae.

"Alt-A mortgage loan" or *"Alt-A loan"* generally refers to a mortgage loan originated under a lender's program offering reduced or alternative documentation than that required for a full documentation mortgage loan but may also include other alternative product features. As a result, Alt-A mortgage loans have a higher risk of default than non-Alt-A mortgage loans. We classify certain loans as Alt-A so that we can discuss our exposure to Alt-A loans in this report and elsewhere. However, there is no universally accepted definition of Alt-A loans. In reporting our Alt-A exposure, we have classified mortgage loans as Alt-A if and only if the lenders that delivered the mortgage loans to us classified the loans as Alt-A, based on documentation or other product features. We have loans with some features that are similar to Alt-A mortgage 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 "Single-Family Business—Single-Family Mortgage Credit Risk Management," "Note 3, Mortgage Loans." We have classified private-label mortgage-related securities held in our retained mortgage portfolio as Alt-A if the securities were labeled as such when issued.

"Amortization income" refers to income resulting from the amortization of 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. These basis adjustments often result from upfront fees that we receive at the time of loan acquisition primarily related to single-family loan level pricing adjustments or other fees we receive from lenders, which are amortized over the contractual life of the loan.

"Business volume" refers to the sum in any given period of the unpaid principal balance of: (1) the mortgage loans and mortgage-related securities we purchase for our retained mortgage portfolio; (2) the mortgage loans we securitize into Fannie Mae MBS that are acquired by third parties; and (3) credit enhancements that we provide on our mortgage assets. It excludes mortgage loans we securitize from our portfolio and the purchase of Fannie Mae MBS for our retained mortgage portfolio.

"Charge-off" refers to loan amounts written off as uncollectible bad debts. These loan amounts are removed from our consolidated balance sheet and charged against our loss reserves when the balance is deemed uncollectible, which is generally at foreclosure or other liquidation events (such as deed-in-lieu of foreclosure or a short-sale). Also includes charge-offs related to the redesignation of loans from held for investment ("HFI") to held for sale ("HFS") and charge-offs related to the Advisory Bulletin.

"Connecticut Avenue Securities" or *"CAS"* refers to a type of security that allows Fannie Mae to transfer a portion of the credit risk from loan reference pools, consisting of certain single-family mortgage loans in our single-family guaranty book of business, to third-party investors.

"Connecticut Avenue Securities REMICs" or *"CAS REMICs"* refers to Connecticut Avenue Securities that are structured as notes issued by trusts that qualify as REMICs.

"Conventional mortgage" refers to a mortgage loan that is not guaranteed or insured by the U.S. government or its agencies, such as the VA, the FHA or the Rural Development Housing and Community Facilities Program of the Department of Agriculture.
"Credit enhancement" refers to an agreement used to reduce credit risk by requiring collateral, letters of credit, mortgage insurance, corporate guarantees, inclusion in a credit risk transfer transaction reference pool, 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.
"FHFA" refers to the Federal Housing Finance Agency. 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. FHFA is our safety and soundness regulator and our mission regulator. FHFA also has been acting as our conservator since September 6, 2008. For more information on FHFA's authority as our conservator and as our regulator, see "Business—Conservatorship, Treasury Agreements and Housing Finance Reform" and "Business—Charter Act and Regulation—GSE Act and Other Regulation."
"GSE Act" refers to the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended, including by the Federal Housing Finance Regulatory Reform Act of 2008. We are subject to regulation applicable to us pursuant to the GSE Act, as described in "Business—Charter Act and Regulation."
"Guaranty book of business" refers to the sum of the unpaid principal balance of: (1) Fannie Mae MBS outstanding; (2) mortgage loans of Fannie Mae; and (3) other credit enhancements that we provide on mortgage assets. It excludes non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

"HARP loans" refer to loans we acquired through the Home Affordable Refinance Program ("HARP"), which allowed eligible Fannie Mae borrowers with high LTV ratio loans to refinance into more sustainable loans.

"HFI loans" or *"held for investment loans"* refer to mortgage loans we acquire for which we have the ability and intent to hold for the foreseeable future or until maturity.

"HFS loans" or *"held for sale loans"* refer to mortgage loans we acquire that we intend to sell or securitize via trusts that will not be consolidated.

"*Intermediate-term loans*" are loans with maturities at origination equal to or less than 15 years.

"Loans," "mortgage loans" and *"mortgages"* refer to both whole loans and loan participations, secured by residential real estate, cooperative shares or by manufactured housing units.
"Loss reserves" consists of our allowance for loan losses and reserve for guaranty losses. Our loss reserves reflects our estimate of the probable losses we have incurred in our guaranty book of business, including concessions we granted borrowers upon modification of their loans.
"Mortgage assets," when referring to our assets, refers to both mortgage loans and mortgage-related securities we hold in our retained mortgage portfolio. For purposes of the senior preferred stock purchase agreement, the definition of mortgage assets 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. We disclose the amount of our mortgage assets for purposes of the senior preferred stock purchase agreement on a monthly basis under the caption "Mortgage Portfolio End Balance" in our Monthly Summaries, which are available on our website and announced in a press release.

"Mortgage-backed securities" or "MBS" refers generally to securities that represent beneficial interests in pools of mortgage loans or other mortgage-related securities. These securities may be issued by Fannie Mae or by others.
"Multifamily mortgage loan" refers to a mortgage loan secured by a property containing five or more residential dwelling units.

"New business purchases" refers to 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.
"Notional amount" refers to the hypothetical dollar amount in an interest rate swap transaction on which exchanged payments are based. The notional amount in an interest rate swap transaction generally is not paid or received by either party to the transaction, or generally perceived as being at risk. The notional amount is typically significantly greater than the potential market or credit loss that could result from such transaction.
"Outstanding Fannie Mae MBS" refers to the total unpaid principal balance of Fannie Mae MBS that is held by third-party investors and held in our retained mortgage portfolio.

"Private-label securities" or *"PLS"* refers to mortgage-related securities issued by entities other than agency issuers Fannie Mae, Freddie Mac or Ginnie Mae.

"Refi Plus loans" refers to loans we acquired under our Refi Plus initiative, which offered refinancing flexibility to eligible Fannie Mae borrowers who were current on their loans and who applied prior to the initiative's December 31, 2018 sunset date. Refi Plus had no limits on maximum LTV ratio and provided mortgage insurance flexibilities for loans with LTV ratios greater than 80%.

"REMIC" or *"Real Estate Mortgage Investment Conduit"* refers to a type of mortgage-related security in which interest and principal payments from mortgages or mortgage-related securities are structured into separately traded securities.
"REO" refers to real-estate owned by Fannie Mae because we have foreclosed on the property or obtained the property through a deed-in-lieu of foreclosure.

"Representations and warranties" refers to a lender's assurance that a mortgage loan sold to us complies with the standards outlined in our Mortgage Selling and Servicing Contract, which incorporates the Selling and Servicing Guides, including underwriting and documentation. Violation of any representation or warranty is a breach of the lender contract, including the warranty that the loan complies with all applicable requirements of the contract, which provides us with certain rights and remedies.
"Retained mortgage portfolio" refers to the mortgage-related assets we own (excluding the portion of assets that back mortgage-related securities owned by third parties).
"Single-family mortgage loan" refers to a mortgage loan secured by a property containing four or fewer residential dwelling units.
"Structured Fannie Mae MBS" refers to Fannie Mae MBS that are resecuritizations of other Fannie Mae MBS.

"Subprime private-label mortgage securities" generally refers to private-label mortgage-related securities held in our retained mortgage portfolio that were labeled as subprime when issued.
"TCCA fees" refers to the expense recognized as a result of the 10 basis point increase in guaranty fees on all single-family residential mortgages delivered to us on or after April 1, 2012 and before January 1, 2022 pursuant to the Temporary Payroll Tax Cut Continuation Act of 2011, which we remit to Treasury on a quarterly basis.
"TDR" or "troubled debt restructuring" refers to a modification to the contractual terms of a loan that results in granting a concession to a borrower experiencing financial difficulties.
"Total book of business" refers to the sum of the unpaid principal balance of: (1) Fannie Mae MBS outstanding; (2) mortgage loans of Fannie Mae; (3) non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio; and (4) other credit enhancements that we provide on mortgage assets.
"*Uniform Mortgage-Backed Securities*" or "*UMBS*" refers to the securities Fannie Mae and Freddie Mac will issue pursuant to the Single Security Initiative discussed in "Business—Mortgage Securitizations."

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Information about market risk is set forth in "MD&A—Risk Management—Market Risk Management, Including Interest Rate Risk Management."

Item 8. Financial Statements and Supplementary Data

Our consolidated financial statements and notes thereto are included elsewhere in this annual report on Form 10-K as described below in "Exhibits, Financial Statement Schedules."

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Overview

We are required under applicable laws and regulations to maintain controls and procedures, which include disclosure controls and procedures as well as internal control over financial reporting, as further described below.

Evaluation of Disclosure Controls and Procedures

Disclosure Controls and Procedures

Disclosure controls and procedures refer to controls and other procedures designed to provide reasonable assurance that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. Disclosure controls and

procedures include, without limitation, controls and procedures designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to management, including our Interim Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding our required disclosure. In designing and evaluating our disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management was required to apply its judgment in evaluating and implementing possible controls and procedures.

Evaluation of Disclosure Controls and Procedures

As required by Rule 13a-15 under the Exchange Act, management has evaluated, with the participation of our Interim Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as in effect as of December 31, 2018, the end of the period covered by this report. As a result of management's evaluation, our Interim Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective at a reasonable assurance level as of December 31, 2018 or as of the date of filing this report.

Our disclosure controls and procedures were not effective as of December 31, 2018 or as of the date of filing this report because they did not adequately ensure the accumulation and communication to management of information known to FHFA that is needed to meet our disclosure obligations under the federal securities laws. As a result, we were not able to rely upon the disclosure controls and procedures that were in place as of December 31, 2018 or as of the date of this filing, and we continue to have a material weakness in our internal control over financial reporting. This material weakness is described in more detail below under "Management's Report on Internal Control Over Financial Reporting—Description of Material Weakness." Based on discussions with FHFA and the structural nature of this material weakness, we do not expect to remediate this material weakness while we are under conservatorship.

Management's Report on Internal Control Over Financial Reporting

Overview

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting, as defined in rules promulgated under the Exchange Act, is a process designed by, or under the supervision of, our Interim Chief Executive Officer and Chief Financial Officer and effected by our Board of Directors, management and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Internal control over financial reporting includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorizations of our management and our Board of Directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process, and it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In making its assessment, management used the criteria established in the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in May 2013. Management's assessment of our internal control over financial reporting as of December 31, 2018 identified a material weakness, which is described below. Because of this material weakness, management has concluded that our internal control over financial reporting was not effective as of December 31, 2018 or as of the date of filing this report.

Our independent registered public accounting firm, Deloitte & Touche LLP, has issued an audit report on our internal control over financial reporting, expressing an adverse opinion on the effectiveness of our internal control over financial reporting as of December 31, 2018. This report is included below under the heading "Report of Independent Registered Public Accounting Firm."

Description of Material Weakness

The Public Company Accounting Oversight Board's Auditing Standard 2201 defines a material weakness as a deficiency or a combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.

Management has determined that we continued to have the following material weakness as of December 31, 2018 and as of the date of filing this report:

- *Disclosure Controls and Procedures.* We have been under the conservatorship of FHFA since September 6, 2008. Under the GSE Act, FHFA is an independent agency that currently functions as both our conservator and our regulator with respect to our safety, soundness and mission. Because of the nature of the conservatorship under the GSE Act, which places us under the "control" of FHFA (as that term is defined by securities laws), 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. Although we and FHFA attempted to design and implement disclosure policies and procedures that would account for the conservatorship and accomplish the same objectives as a disclosure controls and procedures policy of a typical reporting company, there are inherent structural limitations on our ability to design, implement, test or operate effective disclosure controls and procedures. As both our regulator and our conservator under the GSE Act, FHFA is limited in its ability to design and implement a complete set of disclosure controls and procedures relating to Fannie Mae, particularly with respect to current reporting pursuant to Form 8-K. Similarly, as a regulated entity, we are limited in our ability to design, implement, operate and test the controls and procedures for which FHFA is responsible.

Due to these circumstances, 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 consolidated financial statements. As a result, we did not maintain effective controls and procedures designed to ensure complete and accurate disclosure as required by GAAP as of December 31, 2018 or as of the date of filing this report. Based on discussions with FHFA and the structural nature of this weakness, we do not expect to remediate this material weakness while we are under conservatorship.

Mitigating Actions Related to Material Weakness

As described above under "Management's Report on Internal Control Over Financial Reporting—Description of Material Weakness," we continue to have a material weakness in our internal control over financial reporting relating to our disclosure controls and procedures. However, we and FHFA have engaged in the following practices intended to permit accumulation and communication to management of information needed to meet our disclosure obligations under the federal securities laws:

- FHFA has established the Division of Conservatorship, which is intended to facilitate operation of the company with the oversight of the conservator.
- We have provided drafts of our SEC filings to FHFA personnel for their review and comment prior to filing. We also have provided drafts of external press releases, statements and speeches to FHFA personnel for their review and comment prior to release.
- FHFA personnel, including senior officials, have reviewed our SEC filings prior to filing, including this annual report on Form 10-K for the year ended December 31, 2018 ("2018 Form 10-K"), and engaged in discussions regarding issues associated with the information contained in those filings. Prior to filing our 2018 Form 10-K, FHFA provided Fannie Mae management with written acknowledgment that it had reviewed the 2018 Form 10-K, and it was not aware of any material misstatements or omissions in the 2018 Form 10-K and had no objection to our filing the 2018 Form 10-K.
- Our senior management meets regularly with senior leadership at FHFA, including, but not limited to, the Acting Director.
- FHFA representatives attend meetings frequently with various groups within the company to enhance the flow of information and to provide oversight on a variety of matters, including accounting, credit and market risk management, external communications and legal matters.
- Senior officials within FHFA's Office of the Chief Accountant have met frequently with our senior finance executives regarding our accounting policies, practices and procedures.

In view of these activities, we believe that our consolidated financial statements for the year ended December 31, 2018 have been prepared in conformity with GAAP.

Changes in Internal Control Over Financial Reporting

Overview

Management has evaluated, with the participation of our Interim Chief Executive Officer and Chief Financial Officer, whether any changes in our internal control over financial reporting that occurred during our last fiscal quarter have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. There have been no changes in our internal control over financial reporting since September 30, 2018 that management believes have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

In the ordinary course of business, we review our system of internal control over financial reporting and make changes that we believe will improve these controls and increase efficiency, while continuing to ensure that we maintain effective internal controls. Changes may include implementing new, more efficient systems, automating manual processes and updating existing systems. For example, we are currently implementing various financial system applications in stages across the company. As we continue to implement these financial system applications, each implementation may become a significant component of our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To Fannie Mae:

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Fannie Mae and consolidated entities (in conservatorship) (the "Company") as of December 31, 2018, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, because of the effect of the material weakness identified below on the achievement of the objectives of the control criteria, the Company has not maintained effective internal control over financial reporting as of December 31, 2018, based on the criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and our report dated February 14, 2019, expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company's dependence upon the continued support from various agencies of the United States Government, including the United States Department of Treasury and the Company's conservator and regulator, the Federal Housing Finance Agency.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Material Weakness

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis. The following material weakness has been identified and included in management's assessment:

- Disclosure Controls and Procedures - The Company's disclosure controls and procedures did not adequately ensure the accumulation and communication to management of information known to the Federal Housing Finance Agency (as conservator) that is needed to meet their disclosure obligations under the federal securities laws as they relate to financial reporting.

This material weakness was considered in determining the nature, timing, and extent of audit tests applied in our audit of the consolidated financial statements as of and for the year ended December 31, 2018, of the Company and this report does not affect our report on such financial statements.

/s/ Deloitte & Touche LLP

McLean, Virginia
February 14, 2019

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Directors

Our current directors are listed below. They have provided the following information about their principal occupation, business experience and other matters. Upon FHFA's appointment as our conservator on September 6, 2008, FHFA succeeded to all rights, titles, powers and privileges of any director of Fannie Mae with respect to Fannie Mae and its assets.

As discussed in more detail below under "Corporate Governance—Conservatorship and Board Authorities," FHFA, as conservator, appointed an initial group of directors to our Board following our entry into conservatorship, provided the Board with the authority to appoint directors to subsequent vacancies subject to conservator review, and defined the term of service of directors during conservatorship. The Nominating and Corporate Governance Committee of the Board evaluates the qualifications of individual directors on an annual basis. In its assessment of current directors and evaluation of potential candidates for director, the Nominating and Corporate Governance Committee considers, among other things, whether the Board as a whole possesses meaningful experience, qualifications, attributes and skills in the following subject areas: business; finance; capital markets; accounting; risk management; public policy; mortgage lending; real estate; low-income housing; homebuilding; the regulation of financial institutions; and technology. See "Corporate Governance—Composition of Board of Directors" below for further information on the factors the Nominating and Corporate Governance Committee considers in evaluating and selecting Board members.

Amy E. Alving

Age 56

Independent director since October 2013

Board committees:
- Nominating and Corporate Governance (Vice Chair)
- Risk Policy and Capital
- Strategic Initiatives and Technology (Chair)

Dr. Alving served as Chief Technology Officer and Senior Vice President at Science Applications International Corporation ("SAIC"), now known as Leidos Holdings, Inc., a scientific, engineering and technology applications company, from 2007 to 2013. Dr. Alving's prior positions include director of the Special Projects Office at the Defense Advanced Research Projects Agency, White House Fellow, and tenured faculty member at the University of Minnesota. Dr. Alving is currently a member of the Board of Directors of DXC Technology Company, where she serves as a member of the Nominating/Governance Committee. Dr. Alving is also a current member of the Board of Directors of Arconic Inc., where she serves as a member of the Compensation and Benefits Committee and the Governance and Nominating Committee, and chairs the Cybersecurity Advisory Subcommittee. Dr. Alving previously served on the Board of Directors of Arconic from November 2016 to May 2017 and rejoined the Board of Directors of Arconic in May 2018. From 2010 to August 2015, Dr. Alving was a member of the Board of Directors of Pall Corporation, where she served as a member of the Audit Committee and the Nominating/Governance Committee. In addition, she is a member of the Defense Science Board.

Hugh R. Frater

Age 63

Director since January 2016

Interim Chief Executive Officer since October 2018
Prior to his appointment as Interim Chief Executive Officer of Fannie Mae in October 2018, Mr. Frater had been an independent director of Fannie Mae beginning in January 2016, where he most recently served on the Audit Committee and the Risk Policy and Capital Committee. Mr. Frater also serves as Non-Executive Chairman of the Board of VEREIT, Inc. and as a director of ABR Reinsurance Capital Holdings Ltd. Mr. Frater previously worked at Berkadia Commercial Mortgage LLC ("Berkadia"), a commercial real estate company providing comprehensive capital solutions and investment sales advisory and research services for multifamily and commercial properties. He served as Chairman of Berkadia from April 2014 to December 2015 and he served as Chief Executive Officer of Berkadia from 2010 to April 2014. From 2007 to 2010, Mr. Frater was the Chief Operating Officer of Good Energies, Inc., and from 2004 to 2007, Mr. Frater was an Executive Vice President at The PNC Financial Services Group, Inc., where he led the real estate division. Mr. Frater was a Founding Partner and Managing Director of BlackRock, Inc. from 1988 to 2004, where he led the real estate practice. Mr. Frater serves on the MBA Real Estate Program Advisory Board at the Columbia University Graduate School of Business and is also a member of its Board of Overseers.

Renee Lewis Glover

Age 69

Independent director since January 2016

Board committees:
- Nominating and Corporate Governance (Chair)
- Strategic Initiatives and Technology

Ms. Glover is the Founder and Managing Member of The Catalyst Group, LLC, a national consulting firm focused on urban revitalization, real estate development and community building, urban policy, and business transformation. Ms. Glover is currently a member of the Board of Trustees of Enterprise Community Partners, Inc., where she serves on the Audit Committee and the Compensation and Human Resources Committee. Ms. Glover served on the Board of Directors of Habitat for Humanity International from 2006 to November 2015, including serving as Chair of the Board of Directors from 2013 to November 2015. Committees on which she served during her time as a member of the Board of Directors of Habitat for Humanity International included the Audit Committee, Finance Committee, Operations Committee and Executive Committee. Ms. Glover served as a member of the Board of Directors of the Federal Reserve Bank of Atlanta from 2009 to 2014, where she served on the Audit and Operational Risk Committee. She also served as a Commissioner of the Bipartisan Policy Center Housing Commission from 2011 to September 2014. The Commission was responsible for developing a set of bipartisan recommendations concerning federal housing policy and housing finance. Ms. Glover served as president and chief executive officer of the Atlanta Housing Authority and its affiliates from 1994 to 2013. Prior to joining the Atlanta Housing Authority, Ms. Glover was a corporate finance attorney in Atlanta and New York. Ms. Glover served on the Board of Trustees of Starwood Waypoint Homes from February 2017 to November 2017, where she served on the Nominating and Corporate Governance Committee and the Audit Committee. Ms. Glover serves on the Advisory Board of the Penn Institute for Urban Research.

Michael J. Heid

Age 61

Independent director since May 2016

Board committees:
- Audit (Vice Chair)
- Compensation

Mr. Heid served as Executive Vice President (Home Lending) of Wells Fargo & Company from 1997 to January 2016. He served in a number of positions at Wells Fargo Home Mortgage, the mortgage banking division of Wells Fargo, including as

president from 2011 to September 2015, as co-president from 2004 to 2011, and earlier as chief financial officer and head of Loan Servicing. Mr. Heid was employed by Wells Fargo or its predecessors since 1988. Mr. Heid is currently a member of the Board of Directors of Roosevelt Management Company LLC, where he serves as a member of the Strategy Committee.

Robert H. Herz

Age 65

Independent director since June 2011

Board committees:
- Audit (Chair)
- Compensation (Vice Chair)

Mr. Herz serves as President of Robert H. Herz LLC, providing consulting services on financial reporting and other matters. He previously served as a senior advisor to and as a member of the Advisory Board of Workiva Inc. (formerly WebFilings LLC), a provider of financial reporting software, from 2011 to December 2014. From 2002 to 2010, Mr. Herz was Chairman of the Financial Accounting Standards Board, or FASB. He was also a part-time member of the International Accounting Standards Board, or IASB, from 2001 to 2002. He was a partner in PricewaterhouseCoopers LLP from 1985 until his retirement in 2002. He serves on the Standing Advisory Group of the Public Company Accounting Oversight Board, on the Board of Directors of the Sustainability Accounting Standards Board Foundation, on the Advisory Board of AccountAbility, on the Advisory Board of Libra Services, Inc., on the Independent Investment Committee of the United Nations Office for Project Services (“UNOPS”), and as an executive in residence at the Columbia Business School. Mr. Herz is currently a member of the Board of Directors of Morgan Stanley, where he serves as Chair of the Audit Committee and as a member of the Nominating and Governance Committee. Mr. Herz is also a current member of the Board of Directors of Workiva Inc., where he serves as a member of the Audit Committee and Nominating and Governance Committee, and a member of the Board of Directors of Paxos Trust Company, LLC and its parent Kabompo Holdings, Ltd.

Antony Jenkins

Age 57

Independent director since July 2018

Board committees:
- Nominating and Corporate Governance
- Risk Policy and Capital
- Strategic Initiatives and Technology (Vice Chair)

Mr. Jenkins is the Founder and Executive Chair of 10x Future Technologies Limited, a company that is building a digital banking platform designed to redefine how banks operate and engage with customers. Mr. Jenkins was the Group Chief Executive Officer and a member of the Board of Directors of Barclays PLC from August 2012 to July 2015. He served as a member of the Group Executive Committee from November 2009 to July 2015. Prior to becoming Group Chief Executive Officer, Mr. Jenkins served in various other roles at Barclays, including as Chief Executive Officer for the Retail and Business Banking Division from 2009 to 2012, and Chief Executive Officer for Barclaycard Global Operations from 2006 to 2009. Mr. Jenkins served in various roles at Citigroup Inc. from 1989 to 2005, including as Executive Vice President for Citibrands, Executive Vice President for U.S. Hispanic, Global and Strategic Delivery SBU, Chief Executive Officer for eConsumer, and Chief Executive Officer for c2it, Citigroup’s Internet payment initiative. Mr. Jenkins currently serves as Group Chairman of the Board of Directors of Currencies Direct Ltd. and as a member of the Board of Directors of Blockchain Luxembourg SA. Mr. Jenkins also serves as Chair for the Institute for Apprenticeships. Mr. Jenkins served as a member of Fannie Mae’s Digital Advisory Council from February 2017 to June 2018.

Diane C. Nordin

Age 60

Independent director since November 2013

Board committees:
- Audit
- Compensation (Chair)

Ms. Nordin served as a partner of Wellington Management Company, LLP, a private asset management company, from 1995 to 2011, and originally joined Wellington in 1991. She served in many global leadership roles at Wellington, most notably as head of Fixed Income, Vice Chair of the Compensation Committee and Audit Chair of the Wellington Management Trust Company. Ms. Nordin spent over three decades in the investment business, having previously been employed by Fidelity Investments and Putnam Investments. Ms. Nordin is a Chartered Financial Analyst. Following her retirement from the asset management industry, Ms. Nordin served as an Advanced Leadership Initiative Fellow at Harvard University from 2011 to 2012. Ms. Nordin currently serves as a member of the Board of Directors of Principal Financial Group, where she serves as a member of the Audit Committee, the Human Resources Committee and the Strategic Issues Committee. She serves as a member of the Board of Directors of Antares Midco, Inc., where she serves as Chair of the Compensation Committee. She serves as a Trustee of Wheaton College, where she is an Executive Committee and Audit Committee member and Chair of the Investment Committee, as a Director of the Appalachian Mountain Club, where she is Chair of the Investment Committee, and as a member of the Board of Governors of the CFA Institute.

Jonathan Plutzik

Age 64

Board chair since December 2018

Independent director since November 2009

Mr. Plutzik has served as Chairman of Betsy Ross Investors, LLC since 2005. He also has served as President of the Jonathan Plutzik and Lesley Goldwasser Family Foundation Inc. since 2003. Mr. Plutzik served as Non-Executive Chairman of the Board of Directors at Firaxis Games from 2002 to 2005. Before that, he served from 1978 to 2002 in various positions with Credit Suisse First Boston, retiring in 2002 from his role as Vice Chairman. Mr. Plutzik currently serves as a member of the Board of Directors of the Planet Word Museum, the UJA Federation of New York, Zara’s Center and the O, Miami Poetry Festival.

Manuel “Manolo” Sánchez Rodríguez

Age 53

Independent director since September 2018

Board committees:
- Nominating and Corporate Governance
- Risk Policy and Capital (Vice Chair)
- Strategic Initiatives and Technology

Mr. Sánchez is an adjunct professor at Rice University’s Jones Graduate School of Business, Founder of Adelante Ventures LLC, and Founder Advisor to Spring Labs Inc. Mr. Sánchez was the President and Chief Executive Officer of Compass Bank, Inc. (“Compass Bank”), a U.S. subsidiary of Banco Bilbao Vizcaya Argentaria, S.A. (“BBVA”), from December 2008 to January 2017. Mr. Sánchez also served as a member of BBVA’s worldwide Executive Committee and was BBVA’s Country Manager for U.S. operations from September 2010 to January 2017. In addition, Mr. Sánchez became Chairman of the Board of Directors of Compass Bank and its holding company, BBVA Compass Bancshares, Inc., in September 2010 and served in these roles until November 2017. Mr. Sánchez joined BBVA in 1990 and served in a number of other roles at BBVA prior to becoming President and Chief Executive Officer of Compass Bank in 2008, including as Senior Executive Vice President of Community Banking in 2008, President and Chief Executive Officer of Laredo National Bank (then newly-acquired by BBVA) from 2005 to 2008, and Chief

Risk Officer for BBVA Bancomer in Mexico City from 2002 to 2005. Mr. Sánchez currently serves as a member of the Board of Directors of On Deck Capital, Inc., where he is a member of the Audit Committee and the

Compensation Committee. Mr. Sánchez also currently serves as a trustee or member of the Board of Directors of a number of civic, cultural and educational institutions, including the Houston Symphony, KIPP Houston Public Schools, and the Center for Houston's Future.

Ryan A. Zanin

Age 56

Independent director since September 2016

Board committees:
- Compensation
- Risk Policy and Capital (Chair)

Mr. Zanin served as President and CEO of the Restructuring & Strategic Ventures Group at GE Capital from May 2015 until his retirement from General Electric in July 2018. Previously, Mr. Zanin served as Chief Risk Officer of GE Capital from 2010 to April 2015 and again served in that role from November 2016 until his retirement. Before joining GE Capital, Mr. Zanin served as Managing Director and Chief Risk Officer, International Capital Markets, at Wells Fargo & Company, from 2008 to 2010, and as Chief Risk Officer, Corporate and Investment Bank at Wachovia Corporation, from 2006 to 2008. Before that, he spent 14 years in leadership roles across Deutsche Bank AG and Bankers Trust Company. Mr. Zanin has over 30 years of experience in financial services specializing in risk management. Mr. Zanin served as a member of the Board of Directors of the holding company for GE Capital, General Electric Capital Corporation, from December 2016 to June 2018 and from 2010 to April 2015.

Corporate Governance

Conservatorship and Board Authorities

On September 6, 2008, the Director of FHFA appointed FHFA as our conservator in accordance with the GSE Act. As conservator, FHFA succeeded to 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. As a result, our Board of Directors no longer had the power or duty to manage, direct or oversee our business and affairs.

As conservator, FHFA reconstituted our Board of Directors and provided the Board with specified authorities. 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.

Our Board of Directors exercises specified authorities provided to it pursuant to an order from FHFA, as our conservator. The conservator also provided instructions regarding matters for which conservator decision or notification is required. The conservator retains the authority to amend or withdraw its order and instructions at any time.

FHFA's instructions require that we obtain the conservator's decision before taking action on matters that require the consent of or consultation with Treasury under the senior preferred stock purchase agreement. See "Note 11, Equity (Deficit)" for a list of matters that require the approval of Treasury under the senior preferred stock purchase agreement.

FHFA's instructions also require us to obtain the conservator's decision before taking action in the areas identified in the table below. For some matters, FHFA's instructions specify that our Board must review and approve the matter before we request FHFA decision, and for other matters the Board is expected to determine the appropriate level of its engagement. For some of the matters specified in the table below that require prior Board review and approval, the Board is permitted to delegate authority to a relevant Board committee.

Matters requiring prior Board review and approval:	Other matters:
• redemptions or repurchases of our subordinated debt, except as may be necessary to comply with the senior preferred stock purchase agreement; • creation of any subsidiary or affiliate, or entering into a substantial transaction with a subsidiary or affiliate, except for routine ongoing transactions with CSS or the creation of, or a transaction with, a subsidiary or affiliate undertaken in the ordinary course of business; • changes to or removal of Board risk limits that would result in an increase in the amount of risk we may take on; • retention and termination of external auditors and termination of law firms serving as consultants to the Board; • amendments to our bylaws or to charters of our Board committees; • setting or increasing the compensation or benefits payable to members of the Board; and • establishing the annual operating budget.	• material changes in accounting policy; • proposed changes in our business operations, activities, and transactions that in the reasonable business judgment of management are more likely than not to result in a significant increase in credit, market, reputational, operational or other key risks; • matters that impact or question the conservator's powers, our conservatorship status, the legal effect of the conservatorship, interpretations of the senior preferred stock purchase agreement or the Financial Agency Agreement with Treasury or our performance under the Financial Agency Agreement; • agreements relating to litigation, claims, regulatory proceedings or tax-related matters where the value of the claim exceeds a specified threshold, including related matters that aggregate to more than the threshold; • mergers, acquisitions and changes in control of key counterparties where we have a direct contractual right to cease doing business with the entity or object to the merger or acquisition; • changes to requirements, policies, frameworks, standards or products that are aligned with Freddie Mac's, pursuant to FHFA's direction; • credit risk transfer transactions that are a new transaction type, involve a material change in terms, or involve a new type of collateral; • transfers of mortgage servicing rights that meet minimum size thresholds and would increase the transferee's servicing of Fannie Mae seriously delinquent loans by more than a specified threshold; and • changes in employee compensation that could significantly impact our employees, including retention awards, special incentive plans, and merit increase pool funding.

FHFA's instructions also require us to timely notify FHFA of activities that represent a significant change in current business practices, operations, policies or strategies not otherwise addressed in the instructions, so that FHFA can participate in decision-making as necessary. For more information on the conservatorship, refer to "Business—Conservatorship, Treasury Agreements and Housing Finance Reform."

Composition of Board of Directors

FHFA has directed that our Board of Directors should have a minimum of nine and not more than thirteen directors. There is a non-executive Chair of the Board, and our Interim Chief Executive Officer is the only corporate officer serving as a director. Our conservator appointed directors in 2008 and subsequent vacancies have been and may continue to be filled by the Board, subject to review by the conservator. Each director serves on the Board until the earlier of (1) resignation or removal by the conservator or (2) the election of a successor director at an annual meeting of shareholders.

Fannie Mae's bylaws provide that each director holds office for the term for which he or she was elected or appointed and until his or her successor is chosen and qualified or until he or she dies, resigns, retires or is removed from office in accordance with applicable law or regulation, whichever occurs first. Under the Charter Act, each director is elected for a term ending on the date of our next annual shareholders' meeting. As noted above, however, the conservator appointed an initial group of directors to our Board following our entry into conservatorship, provided the Board with the authority to appoint directors to subsequent vacancies subject to conservator review, and defined the term of service of directors during conservatorship. Absent a waiver, FHFA corporate governance regulations limit service on our Board to ten years or age 72, whichever comes first.

Under the Charter Act, our Board shall at all times have as members at least one person from each of the homebuilding, mortgage lending and real estate industries, and at least one person from an organization that has represented consumer or community interests for not less than two years or one person who has demonstrated a career commitment to the provision of housing for low-income households. It is the policy of the Board that a substantial majority of Fannie Mae's directors will be independent, in accordance with the standards adopted by the Board. See "Director Independence—Independence Standards" for a description of these standards. In addition, our Corporate Governance Guidelines provide that the Board, as a group, must be knowledgeable in business, finance, capital markets, accounting, risk management, public policy, mortgage lending, real estate, low-income housing, homebuilding, regulation of financial institutions, technology and any other areas that may be relevant to the safe and sound operation of Fannie Mae. In addition to expertise in the areas noted above, our Corporate Governance Guidelines specify that the Nominating and Corporate Governance Committee will seek out Board members who possess the highest personal values, judgment, and integrity, and who have an understanding of the regulatory and policy environment in which Fannie Mae does business. The Nominating and Corporate Governance Committee also considers whether a prospective candidate for the Board has the ability to attend meetings and fully participate in the activities of the Board.

The Nominating and Corporate Governance Committee also considers diversity when evaluating the composition of the Board. Our Corporate Governance Guidelines specify that the Nominating and Corporate Governance Committee is committed to considering minorities, women and individuals with disabilities in the identification and evaluation process of prospective candidates, and that the Committee will seek out Board members who represent diversity in ideas and perspectives. These provisions of our Corporate Governance Guidelines implement FHFA regulations that require the company to implement and maintain policies and procedures that, among other things, encourage the consideration of diversity in nominating or soliciting nominees for positions on our Board.

The Nominating and Corporate Governance Committee evaluates the qualifications and performance of current directors on an annual basis. Factors taken into consideration by the Committee in making this evaluation include:

- a director's contribution to the effective functioning of the Board;
- any change in the director's principal area of responsibility with his or her company or in his or her employment;
- the director's retirement from his or her principal area of responsibility with his or her company;
- whether the director continues to bring relevant experience to the Board;
- whether the director has the ability to attend meetings and fully participate in the activities of the Board;
- whether the director has developed any relationships with Fannie Mae or another organization, or other circumstances have arisen, that might make it inappropriate for the director to continue serving on the Board; and
- the director's age and length of service on the Board.

In evaluating whether a director should serve on our Board, the Nominating and Corporate Governance Committee considers the factors listed above, as well as each director's particular experience, qualifications, attributes and skills in the areas identified in our Corporate Governance Guidelines. In concluding our current directors should continue to serve as directors, the Nominating and Corporate Governance Committee took into account their knowledge in these areas as indicated in the table below, which they gained from their experience described above in "Directors."

Director Experience, Qualifications, Attributes and Skills

	Business	**Finance and Accounting**	**Capital Markets**	**Risk Management**	**Public Policy**	**Mortgage Lending (ML), Real Estate (RE), Low-Income Housing (LIH), Home Building (HB)**	**Regulation of Financial Institutions**	**Technology**
Amy Alving	ü	ü		ü	ü			ü
Hugh Frater	ü	ü	ü	ü		ML, RE, LIH	ü	
Renee Glover	ü	ü		ü	ü	RE, LIH, HB	ü	
Michael Heid	ü	ü	ü	ü	ü	ML, RE	ü	
Robert Herz	ü	ü	ü	ü		ML	ü	
Antony Jenkins	ü	ü	ü	ü	ü	ML	ü	ü
Diane Nordin	ü	ü	ü	ü		ML	ü	
	ü	ü	ü	ü		ML, RE	ü	

Jonathan Plutzik							
Manolo Sánchez	ü	ü	ü	ü	ML	ü	ü
Ryan Zanin	ü	ü	ü	ü	RE	ü	ü

Board Leadership Structure

We have had a non-executive Chair of the Board since 2004. FHFA regulations and our Corporate Governance Guidelines require separate Chair of the Board and Chief Executive Officer positions and require that the Chair of the Board be an independent director. A non-executive Chair structure enables non-management directors to raise issues and concerns for Board consideration without immediately involving management and is consistent with the Board's emphasis on independent oversight of management, including independent risk oversight, as well as our conservator's directives.

Our Board has five standing committees: the Audit Committee, the Compensation Committee, the Nominating and Corporate Governance Committee, the Risk Policy and Capital Committee, and the Strategic Initiatives and Technology Committee. Pursuant to FHFA direction, with such exceptions as the conservator may direct, the Board and the standing Board committees function in accordance with:

- their designated duties and authorities as set forth in the Charter Act, other applicable federal law, FHFA's corporate governance rules, FHFA's prudential management and operations standards, FHFA written supervisory guidance and direction, and, to the extent not inconsistent with the foregoing, Delaware law (insofar as Fannie Mae has adopted its provisions for corporate governance purposes);
- Fannie Mae's bylaws and the applicable charters of Fannie Mae's Board committees; and
- such other duties or authorities as the conservator may provide.

Such duties or authorities may be modified by the conservator at any time.

Risk Management Oversight

Our Board of Directors oversees risk management primarily through the Risk Policy and Capital Committee of the Board. FHFA regulations set forth risk management requirements for our Board and our Risk Policy and Capital Committee, as described below. These regulations require that our Board approve, have in effect at all times, and periodically review an enterprise-wide risk management program that establishes our risk appetite, aligns the risk appetite with our strategies and objectives, and addresses our exposure to credit risk, market risk, liquidity risk, business risk and operational risk. Our risk management program must align with our risk appetite and include risk limitations appropriate to each line of business, appropriate policies and procedures relating to risk management governance, risk oversight infrastructure, and processes and systems for identifying and reporting risks, including emerging risks. Our program must also include provisions for monitoring compliance with our risk limit structure and policies relating to risk management governance, risk oversight, and effective and timely implementation of corrective actions. Additional provisions must specify management's authority and independence to carry out risk management responsibilities and the integration of risk management with management's goals and compensation structure. FHFA's regulations require our Risk Policy and Capital Committee to assist the Board in carrying out its oversight of our risk management program. Our Risk Policy and Capital Committee must also:

- be chaired by a director not serving Fannie Mae in a management capacity;
- have at least one member with risk management experience that is commensurate with our capital structure, risk appetite, complexity, activities, size and other appropriate risk-related factors;
- have committee members with a practical understanding of risk management principles and practices relevant to Fannie Mae;
- fully document its meetings; and
- report directly to the Board and not as part of, or combined with, another committee.

For more information on the role of our Board and management in risk oversight, see "MD&A—Risk Management—Risk Management Governance."

Committee Charters and Corporate Governance

Our Corporate Governance Guidelines and charters for each of the Board's standing committees are posted on our website, www.fanniemae.com, under "Governance" in the "About Us" section. Although our equity securities are no longer listed on the New York Stock Exchange ("NYSE"), we are required by FHFA's corporate governance regulations to follow specified NYSE corporate governance requirements relating to, among other things, the independence of our Board members and the charters, independence, composition, expertise, duties, responsibilities and other requirements of our Board committees.

Codes of Conduct

We have a Code of Conduct that is applicable to all officers and employees (our "Employee Code of Conduct") and a Code of Conduct for the Board of Directors (our "Director Code of Conduct"). Our Employee Code of Conduct also serves as the code of ethics for our Chief Executive Officer and senior financial officers required by the Sarbanes-Oxley Act of 2002 and implementing regulations of the SEC. We have posted these codes on our website, www.fanniemae.com, under "Governance" in the "About Us" section of our website. We intend to disclose any changes to or waivers from these codes that apply to any of our officers or directors by posting this information on our website.

Audit Committee Membership

Our Board of Directors has a standing Audit Committee consisting of Mr. Herz, who is the Chair, Mr. Heid, who is the Vice Chair, and Ms. Nordin, all of whom are independent under the requirements of independence set forth in FHFA's corporate governance regulations (which requires the standard of independence adopted by the NYSE), Fannie Mae's Corporate Governance Guidelines, and other SEC rules and regulations applicable to audit committees. The Board has determined that Mr. Herz, Mr. Heid and Ms. Nordin each have the requisite experience, as discussed in "Directors," to qualify as an "audit committee financial expert" under the rules and regulations of the SEC and has designated each of them as such.

Executive Sessions

Our non-management directors meet regularly in executive sessions without management present. Our Board of Directors reserves time for an executive session at every regularly scheduled Board meeting. The non-executive Chair of the Board, Mr. Plutzik, presides over these sessions.

Communications with Directors or Audit Committee

Interested parties wishing to communicate any concerns or questions about Fannie Mae to the non-executive Chair of the Board or to our non-management directors individually or as a group may do so by electronic mail addressed to "board@fanniemae.com," or by U.S. mail addressed to Board of Directors, c/o Office of the Corporate Secretary, Fannie Mae, 1100 15th Street, NW, Washington, DC 20005. Communications may be addressed to a specific director or directors, including Mr. Plutzik, the Chair of the Board, or to groups of directors, such as the independent or non-management directors.

Interested parties wishing to communicate with the Audit Committee regarding accounting, internal accounting controls or auditing matters may do so by electronic mail addressed to "auditcommittee@fanniemae.com," or by U.S. mail addressed to Audit Committee, c/o Office of the Corporate Secretary, Fannie Mae, 1100 15th Street, NW, Washington, DC 20005.

The Office of the Corporate Secretary is responsible for processing all communications to a director or directors. Communications that are deemed by the Office of the Corporate Secretary to be commercial solicitations, ordinary course customer inquiries or complaints, incoherent or obscene are not forwarded to directors.

Director Nominations; Shareholder Proposals

Under the GSE Act, FHFA, as conservator, has all rights, titles, powers and privileges of the shareholders and Board of Directors of Fannie Mae. As a result, Fannie Mae's common shareholders no longer have the ability to recommend director nominees or elect the directors of Fannie Mae or bring business before any meeting of shareholders pursuant to the procedures in our bylaws. We currently do not plan to hold an annual meeting of shareholders in 2019. For more information on the conservatorship, refer to "Business—Conservatorship, Treasury Agreements and Housing Finance Reform."

Executive Officers

Under our bylaws, each executive officer holds office until his or her successor is chosen and qualified or until he or she dies, resigns, retires or is removed from office, whichever occurs first.

Mr. Frater, our Interim Chief Executive Officer, has served as our Interim Chief Executive Officer since October 2018 and as a member of our Board of Directors since January 2016. Information about his business experience and other matters is provided in "Directors." As of February 14, 2019, we have seven other executive officers:

David C. Benson

President

Age 59 Joined Fannie Mae in 2002

Mr. Benson has been President since August 2018. Mr. Benson previously served as Executive Vice President and Chief Financial Officer from 2013 to August 2018, as Executive Vice President—Capital Markets, Securitization & Corporate Strategy from 2012 to 2013 and as Executive Vice President—Capital Markets from 2009 to 2012. He also served as Treasurer from 2010 to 2012.

Mr. Benson previously served as Fannie Mae's Executive Vice President—Capital Markets and Treasury from 2008 to 2009, as Fannie Mae's Senior Vice President and Treasurer from 2006 to 2008, and as Fannie Mae's Vice President and Assistant Treasurer from 2002 to 2006. Prior to joining Fannie Mae, Mr. Benson was Managing Director in

the fixed income division of Merrill Lynch & Co. From 1988 through 2002, he served in several capacities at Merrill Lynch in the areas of risk management, trading, debt syndication and e-commerce based in New York and London.

Andrew J. Bon Salle

Executive Vice President—Single-Family Mortgage Business

Age 53

Joined Fannie Mae in 1992

Mr. Bon Salle has been Executive Vice President—Single-Family Mortgage Business since December 2014. Prior to that time, he served as Executive Vice President—Single-Family Underwriting, Pricing, and Capital Markets, from 2013 to December 2014. Mr. Bon Salle previously served as Fannie Mae's Senior Vice President and Head of Underwriting and Pricing from 2011 to 2013, Senior Vice President—Capital Markets from 2006 to 2011, and as Fannie Mae's Vice President—Portfolio Management from 2000 to 2006. Mr. Bon Salle held the positions of Director, Finance from 1996 to 2000 and of Manager, Early Funding Programs from 1994 to 1996. Mr. Bon Salle joined Fannie Mae in 1992 as a senior capital markets analyst.

Celeste M. Brown

Executive Vice President and Chief Financial Officer

Age 42

Joined Fannie Mae in 2017

Ms. Brown has served as Executive Vice President and Chief Financial Officer since August 2018. Ms. Brown previously served as Fannie Mae's Senior Vice President and Deputy Chief Financial Officer from May 2017, when she joined Fannie Mae, to August 2018. Prior to joining Fannie Mae, Ms. Brown served in a variety of roles at Morgan Stanley from 1999 to April 2017, including as Global Treasurer from November 2014 to April 2017 and as Head of Investor Relations from October 2010 to November 2014.

John S. Forlines

Senior Vice President and Chief Risk Officer

Age 55

Joined Fannie Mae in 1987

Mr. Forlines has served as Senior Vice President and Chief Risk Officer since September 2018, and previously served as Interim Chief Risk Officer from March 2018 to September 2018. Prior to that time, Mr. Forlines served as Senior Vice President and Deputy Chief Risk Officer from November 2015 to March 2018, as Senior Vice President and Chief Audit Executive from 2013 to November 2015, and as Senior Vice President and Chief Credit Officer for Single-Family from 2012 to 2013. From 2006 to 2012, Mr. Forlines served as a Vice President in various positions with the company relating to single-family credit risk management. Prior to his promotion to Vice President, Mr. Forlines held a number of Director-level positions with the company relating to customer management, marketing and credit risk management from 1997 to 2006. Prior to this time, Mr. Forlines held several Manager-level positions, including Manager of Lender Administration from 1992 to 1995 and various audit-related positions from 1987 to 1992. Mr. Forlines joined Fannie Mae in 1987 as an auditor.

Jeffery R. Hayward

Executive Vice President and Head of Multifamily

Age 62
Joined Fannie Mae in 1987

Mr. Hayward has served as Head of Multifamily since 2012, first as Senior Vice President and, since December 2014, as Executive Vice President, after serving in various roles at Fannie Mae for over 25 years. He was Fannie Mae's Senior Vice President—National Servicing Organization from 2010 to 2012. He also served as Senior Vice President of Community Lending in Fannie Mae's Multifamily division from 2004 to 2010. Prior to that time, Mr. Hayward served as both a Senior Vice President and a Vice President in Fannie Mae's Single-Family division, including as Senior Vice President in the National Business Center from 2001 to 2004, as Vice President for Single-Family Business Strategy from 1999 to 2001, as Vice President for Asset Management Services from 1998 to 1999 and as Vice President for Quality Control and Operations from 1996 to 1998. Mr. Hayward also served as Vice President for Risk Management from 1993 to 1996. Before that, he served as Director, Loan Acquisition from 1992 to 1993, as Director, Marketing from 1989 to 1992, and as Senior Negotiator from 1988 to 1989. Mr. Hayward joined the company in 1987 as a senior MBS representative.

Kimberly H. Johnson

Executive Vice President and Chief Operating Officer

Age 46
Joined Fannie Mae in 2006

Ms. Johnson has served as Executive Vice President and Chief Operating Officer since March 2018. Ms. Johnson previously served as Executive Vice President and Chief Risk Officer from January 2017 to March 2018, and as Senior Vice President and Chief Risk Officer from November 2015 to January 2017. She served as Senior Vice President and Deputy Chief Risk Officer from 2013 to November 2015. Ms. Johnson served in Fannie Mae's Multifamily business as Senior Vice President for loans, securities, credit pricing and modeling, and as Vice President in our Capital Markets group with responsibility for trading multifamily loans and securities from 2009 to 2013. Prior to that time, Ms. Johnson was responsible for Metrics and Reporting for the Making Home Affordable Program from March 2009 to September 2009. Ms. Johnson joined Fannie Mae in 2006 as a Vice President in Capital Markets.

Stephen H. McElhennon

Senior Vice President and Interim General Counsel

Age 49
Joined Fannie Mae in 2000

Mr. McElhennon has served as Senior Vice President and Interim General Counsel since December 2018 and prior to that time served as Vice President and Interim General Counsel from September 2018 to December 2018. Mr. McElhennon previously served as Vice President and Deputy General Counsel from 2006 to September 2018, with responsibility for a wide range of legal matters, including SEC disclosure, capital markets, securitization, tax and benefits, employment law and legal department operations. Prior to that time, Mr. McElhennon was Associate General Counsel from 2000, when he joined Fannie Mae, to 2006. Prior to joining Fannie Mae in 2000, Mr. McElhennon was an Associate with Brown & Wood LLP (now Sidley Austin LLP) in New York, where he worked as a Corporate and Securities Associate, specializing in debt, equity, and synthetic product transactions.

Section 16(a) Beneficial Ownership Reporting Compliance

Our directors and officers file with the SEC reports on their ownership of our stock and on changes in their stock ownership. Based on a review of forms filed during 2018 or with respect to 2018 and on written representations from our directors and officers, we believe that all of our directors and officers timely filed all required reports and reported all transactions reportable during 2018.

Item 11. Executive Compensation
Compensation Discussion and Analysis

Named Executives for 2018

This Compensation Discussion and Analysis focuses on our compensation decisions and arrangements for 2018 relating to our "named executives":

- **Hugh R. Frater** Interim Chief Executive Officer *(beginning October 2018)*
- **Timothy J. Mayopoulos** Former Chief Executive Officer *(until October 2018)*
- **Celeste M. Brown** Executive Vice President and Chief Financial Officer *(beginning August 2018)*
- **David C. Benson** President *(beginning August 2018)*
  Former Executive Vice President and Chief Financial Officer *(until August 2018)*
- **Andrew J. Bon Salle** Executive Vice President—Single-Family Mortgage Business
- **Jeffery R. Hayward** Executive Vice President and Head of Multifamily
- **Kimberly H. Johnson** Executive Vice President and Chief Operating Officer *(beginning March 2018)*
  Former Executive Vice President and Chief Risk Officer *(until March 2018)*

These officers are our principal executive officer, our former principal executive officer, our principal financial officer, our former principal financial officer, and our next three most highly compensated executive officers during 2018. We refer to our 2018 compensation arrangements with our named executives, other than our Interim Chief Executive Officer and our former Chief Executive Officer, as the "2018 executive compensation program."

Executive Summary

Due to our conservatorship status and other legal requirements, FHFA, our conservator and regulator, has significant oversight and approval rights over our executive compensation arrangements and determinations. Congress has also enacted legislation since we entered into conservatorship that significantly impacts the compensation we pay our named executives.

Under the Equity in Government Compensation Act of 2015, the total direct compensation for the position of chief executive officer is limited to $600,000 annually. This restriction applies as long as we are in conservatorship or receivership. As a result, total annual direct compensation for our Interim Chief Executive Officer, Mr. Frater, is $600,000, which consists solely of base salary. Similarly, total annual direct compensation for our former Chief Executive Officer, Mr. Mayopoulos, consisted solely of base salary of $600,000.

The executive compensation program in place for 2018 for our other named executives was developed by FHFA in consultation with Treasury. These named executives receive two principal elements of compensation: base salary, which is paid in regular installments throughout the year, and deferred salary, which is paid after a one-year deferral period. There are two components to deferred salary: a fixed portion that is generally subject to reduction if an executive leaves the company before payment and an at-risk portion that is subject to reduction based on corporate and individual performance. Named executives do not receive bonuses or any form of equity compensation.

Fannie Mae had another successful year in 2018. Under the leadership of our experienced executives, including our named executives, we had net income of $16.0 billion in 2018. As discussed in "Determination of2018 Compensation," we achieved many milestones and accomplishments as we strived to be America's most valued housing partner. We completed all of the corporate performance goals for 2018 set by the conservator. We refer to these as the 2018 conservatorship scorecard. The goals in the 2018 conservatorship scorecard related to the following objectives:

- 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; and
-

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.

Our Board of Directors determined that we achieved the goals it established for 2018. The 2018 Board of Directors' goals were aligned with the company's four strategic objectives:

- Advancing a sustainable and reliable business model with low risk to the housing finance system and taxpayers;
- Providing great service to our customers and partners, enabling them to serve the needs of American households more effectively;
- Supporting and sustainably increasing access to credit and affordable housing; and
- Building a simple, efficient, innovative and continuously improving company.

While conserving taxpayer resources is an important objective of FHFA's design of our executive compensation program, we and FHFA understand that this objective must be balanced against our need to attract and retain qualified and experienced executives to prudently manage our $3.3 trillion book of business and enable the company to be an effective steward of taxpayer resources.

2018 Executive Compensation Program; Chief Executive Officer Compensation

Overview of Executive Compensation Program

FHFA has advised us that the design of our executive compensation program, which applies to our named executives other than the individual serving in our chief executive officer position, was intended to fulfill, and to balance, three primary objectives:

- *Maintain Lower Pay Levels to Conserve Taxpayer Resources.* Given our conservatorship status, our executive compensation program is designed to generally provide for lower pay levels relative to large financial services firms that are not in conservatorship.
- *Attract and Retain Executive Talent.* The 2018 executive compensation program is intended to attract and retain executive talent with the specialized skills and knowledge necessary to effectively manage a large financial services company. Executives with these qualifications are needed for the company to continue to fulfill its important role in providing liquidity to the mortgage market and supporting the housing market, as well as to prudently manage its $3.3 trillion book of business and enable the company to be an effective steward of the government's and taxpayers' support. We face competition from both within the financial services industry and from businesses outside of this industry for qualified executives. The Compensation Committee and the Board of Directors regularly consider the level of our executives' compensation and whether changes are needed to attract and retain executives. See "Risk Factors" for a discussion of the risks associated with executive retention and succession planning.
- *Reduce Pay if Goals Are Not Achieved.* To support FHFA's goals for our conservatorship and encourage performance in furtherance of these goals, 30% of each named executive's total target direct compensation (other than the chief executive officer's compensation) consists of at-risk deferred salary subject to reduction based on performance.

Impact of Conservatorship and Other Legal Requirements

The conservatorship and legislation enacted since we entered conservatorship in 2008 significantly impact the compensation we pay our named executives, particularly the individual serving in our chief executive officer position, as well as the process by which our executives' compensation is determined. Regulatory and other legal requirements affecting our executive compensation program and policies include the following:

- Requirements applicable while we are under conservatorship include:

The Equity in Government Compensation Act of 2015 caps the annual total direct compensation for our chief executive officer position at $600,000, consisting solely of base salary. This law also provides that compensation and benefits for our chief executive officer position may not be increased as long as Fannie Mae is in conservatorship or receivership.

Pursuant to the STOCK Act and related regulations issued by FHFA, the named executives are prohibited from receiving bonuses during conservatorship.

As our conservator, FHFA has retained the authority to approve the terms and amount of our executive compensation. In its instructions to us, FHFA directed that management obtain FHFA's decision before entering into new compensation arrangements or increasing amounts or benefits payable under existing compensation arrangements of named executives or other executive officers as defined in SEC rules.

As our conservator, FHFA has all powers of our shareholders. Accordingly, we have not held shareholders' meetings since entering into conservatorship, nor have we held any shareholder advisory votes on executive compensation.

Pursuant to FHFA's instructions, FHFA's decision as conservator is required with regard to any changes in employee compensation that could significantly impact our employees, including but not limited to retention awards, special incentive plans and merit increase pool funding.

FHFA regulation also generally prohibits us from making golden parachute payments to any current or former director, officer or employee of the company during any period in which we are in conservatorship, receivership or other troubled condition, unless either a specific exemption applies or the Director of FHFA approves the payments. A golden parachute payment generally refers to a compensatory payment that is contingent on termination of employment.

- Requirements under the terms of our senior preferred stock purchase agreement with Treasury:

We may not enter into any new compensation arrangements with, or increase amounts or benefits payable under existing compensation arrangements of, any named executives or other executive officers as defined in SEC rules without the consent of the Director of FHFA, in consultation with the Secretary of the Treasury.

We may not sell or issue any equity securities without the prior written consent of Treasury, other than as required by the terms of any binding agreement in effect on the date of the senior preferred stock purchase agreement. This effectively eliminates our ability to offer stock-based compensation.

- As our regulator, FHFA must approve any termination benefits we offer to our named executives and certain other officers identified by FHFA.

Chief Executive Officer Compensation

Direct compensation for our chief executive officer position consists solely of a base salary of $600,000 and has been limited to this amount by statute since the enactment of the Equity in Government Compensation Act of 2015. Our current level of chief executive officer compensation puts pressure on our ability to attract and retain executive talent. As discussed in “Other Executive Compensation Considerations—Comparator Group and Role of Benchmark Data,” total annual direct compensation for our chief executive officer position is more than 90% below the market median for 2017 chief executive officer compensation at comparable firms. Our inability to offer market-based compensation to our chief executive officer hinders our succession planning for our chief executive officer role.

Our former Chief Executive Officer left the company in October 2018. We currently have an Interim Chief Executive Officer while our Board of Directors conducts a search for a successor. We believe the limit applicable to our chief executive officer compensation negatively affected our ability to retain our former Chief Executive Officer, and is also negatively affecting our ability to attract a successor for this critical role. See “Risk Factors” for a discussion of the risks associated with executive retention and succession planning.

Elements of 2018 Executive Compensation Program

Direct Compensation

The table below summarizes the principal elements, objectives and key features of our 2018 executive compensation program for our named executives. Our Interim Chief Executive Officer and former Chief Executive Officer received only base salary and no deferred salary. All elements of our named executives' direct compensation are paid in cash.

Compensation Element	Form	Primary Compensation Objectives	Key Features
Base Salary	Fixed cash payments, which are paid during the year on a bi-weekly basis.	Attract and retain named executives by providing a fixed level of current cash compensation.	Base salary reflects each named executive's level of responsibility and experience, as well as individual performance over time. Base salary is capped by statute at $600,000 for our chief executive officer position. Base salary is limited to $600,000 for our president and chief financial officer positions, and $500,000 for our other executive officers, in accordance with FHFA guidance.
Deferred Salary (Not applicable to the chief executive officer position)	Deferred salary is earned in bi-weekly increments over the course of the performance year, and is paid in quarterly installments in March, June, September and December of the following year. Interest accrues on deferred salary at one-half of the one-year Treasury Bill rate in effect on the last business day immediately preceding the year in which the deferred salary is earned. There are two elements of deferred salary: • a fixed portion that is generally subject to reduction if an executive leaves the company within one year following the end of the performance year; and • an at-risk portion that is subject to reduction based on assessments of corporate and individual performance following the end of the performance year.	***Fixed Deferred Salary*** Retain named executives.	Earned but unpaid fixed deferred salary is subject to reduction if a named executive leaves the company within one year following the end of the performance year. The amount of earned but unpaid fixed deferred salary received by the named executive will be reduced by 2% for each full or partial month by which the executive's separation date precedes January 31 of the second year following the performance year (or, if later, the end of the twenty-fourth month following the month in which the named executive first earns deferred salary). The reduction provisions applicable to payments of earned but unpaid fixed deferred salary do not apply if an officer's employment terminates other than for cause at or after age 62, or age 55 with 10 years of service with Fannie Mae, or as a result of death or long-term disability.
		At-Risk Deferred Salary Retain named executives and encourage them to achieve corporate and individual performance objectives.	Equal to 30% of each named executive's total target direct compensation. Half of at-risk deferred salary was subject to reduction based on corporate performance against the 2018 conservatorship scorecard as determined by FHFA. The remaining half of at-risk deferred salary was subject to reduction based on individual performance as determined by the Board of Directors, with FHFA's review, taking into account corporate performance against the 2018 Board of Directors' goals. There is no potential for at-risk deferred salary to be paid out at greater than 100% of target; at-risk deferred salary is subject only to reduction. If the executive's employment terminates due to death or long-term disability prior to the Board of Directors' and FHFA's determinations of performance, the reduction provisions applicable to

payments of earned but unpaid at-risk deferred salary do not apply.

Employee Benefits

Our employee benefits serve as an important tool in attracting and retaining senior executives. We describe the employee benefits available in 2018 to our named executives in the table below. We provide more detail on our retirement plans in "Compensation Tables and Other Information."

Benefit	Form	Primary Objective
401(k) Plan ("Retirement Savings Plan")	A tax-qualified defined contribution plan (401(k) plan) available to our employee population as a whole.	Attract and retain named executives by providing retirement savings in a tax-efficient manner.
Non-qualified Deferred Compensation ("Supplemental Retirement Savings Plan")	The Supplemental Retirement Savings Plan is an unfunded, non-tax-qualified defined contribution plan. The plan supplements our tax-qualified defined contribution plan by providing benefits to participants whose annual eligible earnings exceed the Internal Revenue Service ("IRS") limit on eligible compensation for 401(k) plans.	Attract and retain named executives by providing additional retirement savings.
Health, Welfare and Other Benefits	In general, the named executives are eligible for the same benefits available to our employee population as a whole, including our medical insurance plans, life insurance program and matching charitable gifts program. The named executives are also eligible to participate in our voluntary supplemental long-term disability plan, which is available to many of our employees.	Provide for the well-being of the named executive and his or her family.

In connection with our termination in 2013 of our defined benefit pension plan, for a limited time we provided additional benefits under our Retirement Savings Plan and our Supplemental Retirement Savings Plan for employees who met specified age and length of service criteria, including Mr. Benson and Mr. Hayward. These benefits are described in "Compensation Tables and Other Information."

Sign-on Awards and Relocation Benefits

In addition to the direct compensation and employee benefits described in the tables above, from time to time we may offer a sign-on award to a new executive to attract the executive to join Fannie Mae and/or to compensate him or her for compensation forfeited upon leaving a prior employer. We also from time to time may offer relocation benefits to a new executive to attract the executive by reimbursing him or her for costs associated with moving to the Washington, DC area. Ms. Brown was awarded a sign-on award and relocation benefits in connection with her hire. See "Compensation Arrangements with Current Chief Financial Officer" and "Compensation Tables and Other Information—Summary Compensation Table" for more information regarding Ms. Brown's sign-on award and relocation benefits.

Severance Benefits

We have not entered into agreements with any of our named executives that entitle the executive to severance benefits. Under the 2018 executive compensation program, a named executive is entitled to receive a specified portion of his or her earned but unpaid deferred salary if his or her employment is terminated for any reason other than for cause. See "Compensation Tables and Other Information—Potential Payments Upon Termination or Change-in-Control" for information on compensation that we may pay to a named executive in certain circumstances in the event the executive's employment is terminated.

Determination of 2018 Compensation

2018 Compensation Actions

The table below displays the 2018 base salary, fixed deferred salary and at-risk performance-based compensation targets for each of our named executives. Pursuant to the assessments and determinations by FHFA, the Compensation Committee and the Board of Directors described below, each of our named executives will be paid 100% of his or her corporate performance-based at-risk deferred salary target and 100% of his or her individual performance-based at-risk deferred salary target for 2018. This table is presented on a different basis from, and is not intended to replace, the Summary Compensation Table required under applicable SEC rules, which is included in “Compensation Tables and Other Information—Summary Compensation Table” and includes additional forms of compensation not included in the table below.

increased responsibilities, scope and complexity of the new roles each assumed in 2018 and to better align their compensation with the market. Mr. Bon Salle and Mr. Hayward received compensation increases to better align their compensation with their responsibilities.

Summary of 2018 Compensation Actions

Name and Principal Position	2018 Base Salary	2018 Fixed Deferred Salary	2018 Corporate Performance-Based At-Risk Deferred Salary Target	2018 Individual Performance-Based At-Risk Deferred Salary Target	Total
Hugh Frater(1) Interim Chief Executive Officer	$ 113,077	$ —	$ —	$ —	$ 113,077
Timothy Mayopoulos(2) Former Chief Executive Officer	486,923	—	—	—	486,923
Celeste Brown(3) Executive Vice President and Chief Financial Officer	505,769	794,615	278,654	278,654	1,857,692
David Benson(4) President; Former Executive Vice President and Chief Financial Officer	600,000	1,669,615	486,346	486,346	3,242,307
Andrew Bon Salle(5) Executive Vice President—Single-Family Mortgage Business	500,000	1,741,346	480,289	480,288	3,201,923
Jeffery Hayward(6) Executive Vice President and Head of Multifamily	500,000	1,209,615	366,346	366,346	2,442,307
Kimberly Johnson(7) Executive Vice President and Chief Operating Officer	500,000	1,093,846	341,539	341,538	2,276,923

(1) Mr. Frater became our Interim Chief Executive Officer in October 2018 and has a base salary rate of $600,000 per year. The amount shown consists of the prorated amount of base salary that was paid to him for 2018.

(2) Mr. Mayopoulos left the company in October 2018. He had a base salary rate of $600,000 per year. The amount shown consists of the prorated amount of base salary that was paid to him for 2018.

(3) Amounts shown reflect increases in November 2018 in Ms. Brown’s base salary, fixed deferred salary and at-risk deferred salary, which were prorated based on the effective date of the increase. Effective in August 2019, Ms. Brown’s total annual direct compensation target will increase from $2,300,000 to $3,000,000, consisting of base salary of $600,000, fixed deferred salary of $1,500,000 and at-risk deferred salary of $900,000. This increase in Ms. Brown’s compensation will be prorated for 2019 based on the effective date of the increase. See “Compensation Arrangements with Current Chief Financial Officer” and “Compensation Tables and Other Information—Summary Compensation Table” for more information regarding Ms. Brown’s 2018 and 2019 compensation, including additional forms of compensation she received.

(4) Amounts shown reflect increases in March 2018 and November 2018 in Mr. Benson’s fixed deferred salary and at-risk deferred salary, which were prorated based on the effective date of the increase. Effective November 2018, Mr. Benson’s

total annual direct compensation target is $3,600,000, consisting of base salary of $600,000, fixed deferred salary of $1,920,000 and at-risk deferred salary of $1,080,000.

(5) Amounts shown reflect increases in March 2018 in Mr. Bon Salle's fixed deferred salary and at-risk deferred salary, which were prorated based on the effective date of the increase. Effective March 2018, Mr. Bon Salle's total annual direct compensation target is $3,250,000, consisting of base salary of $500,000, fixed deferred salary of $1,775,000 and at-risk deferred salary of $975,000.

(6) Amounts shown reflect increases in March 2018 in Mr. Hayward's fixed deferred salary and at-risk deferred salary, which were prorated based on the effective date of the increase. Effective in late December 2018, Mr. Hayward's total annual direct compensation target increased to $2,800,000, consisting of base salary of $500,000, fixed deferred salary of $1,460,000 and at-risk deferred salary of $840,000. The December 2018 increase did not affect Mr. Hayward's 2018 compensation shown in this table.

(7) Amounts shown reflect increases in March 2018 and November 2018 in Ms. Johnson's fixed deferred salary and at-risk deferred salary, which were prorated based on the effective date of the increase. Effective in August 2019, Ms. Johnson's total annual direct compensation target will increase from $2,600,000 to $2,800,000, consisting of base salary of $500,000, fixed deferred salary of $1,460,000 and at-risk deferred salary of $840,000. This increase in Ms. Johnson's compensation will be prorated for 2019 based on the effective date of the increase.

Compensation Arrangements with Current Chief Financial Officer

Ms. Brown joined the company in May 2017 as Senior Vice President and Deputy Chief Financial Officer. Following her August 2018 promotion to Executive Vice President and Chief Financial Officer, the Board of Directors and FHFA approved an increase in her annual target direct compensation from $1,800,000 to $3,000,000, to be implemented in two steps—the first step was effective in November 2018 and the second step will be effective in August 2019. See footnote 3 to the "Summary of 2018 Compensation Actions" table above for additional information on Ms. Brown's annual direct compensation targets.

In addition to this compensation, Ms. Brown was awarded a sign-on award of $2,800,000, payable in three installments, when she joined the company in 2017, primarily to compensate her for equity-based compensation she forfeited upon leaving her prior employer.

—Summary Compensation Table" for additional information regarding Ms. Brown's 2018 compensation.

Assessment of Corporate Performance against 2018 Conservatorship Scorecard

Overview

In December 2017, FHFA issued the 2018 conservatorship scorecard, a set of corporate performance objectives and related targets for 2018. The elements of the 2018 conservatorship scorecard are shown below under "FHFA Assessment." FHFA developed these objectives and related targets with input from management. Half of 2018 at-risk deferred salary, or 15% of overall 2018 total target direct compensation for each named executive other than Mr. Frater and Mr. Mayopoulos, was subject to reduction based on FHFA's assessment of our performance against the 2018 conservatorship scorecard and related objectives.

As part of the 2018 conservatorship scorecard, FHFA established that, for all scorecard items, our performance would be assessed based on the following criteria:

- The extent to which we conduct initiatives in a safe and sound manner consistent with FHFA's expectations for all activities;
- The extent to which the outcomes of our activities support a competitive and resilient secondary mortgage market to support homeowners and renters;
- The extent to which we conduct initiatives with consideration for diversity and inclusion consistent with FHFA's expectations for all activities;
- Cooperation and collaboration with FHFA, Common Securitization Solutions, LLC, Freddie Mac, the industry, and other stakeholders; and
- The quality, thoroughness, creativity, effectiveness, and timeliness of our work products.

FHFA Assessment

We provided updates to and maintained a dialogue with FHFA throughout 2018 on our performance against the 2018 conservatorship scorecard, including our performance against FHFA's expectations for diversity and inclusion. In December 2018, FHFA reviewed and assessed our performance against the 2018 conservatorship scorecard, with input from management and the

Compensation Committee. FHFA determined that we completed all of the 2018 conservatorship scorecard objectives. Accordingly, FHFA determined that the portion of 2018 at-risk deferred salary that is based on corporate performance would be paid at 100% of target.

The table below sets forth the 2018 conservatorship scorecard and a summary of FHFA's assessment of our achievement against the scorecard objectives and targets. For purposes of the 2018 conservatorship scorecard, "Enterprise" refers to each of Fannie Mae and Freddie Mac.

Objectives and Weighting	**Performance Assessment**
FHFA expects the Enterprises to efficiently and effectively operate their single-family and multifamily business activities in a manner that supports safety and soundness, market liquidity, and access to credit.	
Continue efforts to increase access to single-family mortgage credit for creditworthy borrowers, including underserved segments of the market: • Continue to identify opportunities to improve access to credit in a safe and sound manner, taking into consideration the changing circumstances and needs facing prospective borrower segments. • Assess the availability of low-balance loan financing and develop recommendations as appropriate. • Continue to support access to credit for borrowers with limited English proficiency, including by finalizing multiyear language access plans and beginning plan implementation. • Informed by request for input feedback, conclude the assessment of updated credit score models, and as appropriate, plan for implementation. • Research, assess, and begin planning for appraisal process modernization, which could include revised appraisal forms and data requirements. • Research and assess opportunities to further partnerships with housing finance agencies.	**The objective was completed.** FHFA noted that our accomplishments in 2018 to increase access to credit included: • Significant contributions to the outstanding progress made on the Language Access Project resulting in the launch of the Mortgage Translations clearinghouse website in October 2018, ahead of schedule; • Development of a word-searchable glossary and document taxonomy for the Mortgage Translations clearinghouse; and • Establishing clear goals and metrics and opening opportunities for diverse borrowers to have greater access to credit.
Finalize post-crisis loss mitigation activities: • Complete the post-crisis loss mitigation toolkit, including foreclosure alternatives and short-term hardships.	**The objective was completed.** FHFA noted that Fannie Mae's dedication to finalizing the post-crisis loss mitigation was noteworthy and helped contribute to the publication of important guidance on foreclosure alternatives, servicing, forbearance, and a standardized timeline calculation.
Continue to responsibly support the Neighborhood Stabilization Initiative.	**The objective was completed.**
Assess the current mortgage servicing business model and develop plans to support ongoing liquidity in the mortgage servicing market: • Informed by the 2017 Joint Servicing Market Survey, assess the challenges and potential solutions for improving the borrower experience, expanding liquidity, and increasing efficiency of the servicing market. •	**The objective was completed.**

Work collaboratively with industry and other stakeholders.	
Single-Family Rental Strategies:	
• Continue to gather and report to FHFA information needed to inform policy decisions regarding single-family rentals, and assist FHFA in assessing single-family rental strategies.	**The objective was completed.**
Develop plans to further support liquidity in the multifamily workforce housing market and consider market cost differences:	
• Explore opportunities to further support liquidity in multifamily workforce housing, including through pilots and initiatives.	**The objective was completed.**

Objectives and Weighting	Performance Assessment
Manage the dollar volume of new multifamily business to remain at or below $35 billion for each Enterprise: • Loans in affordable and underserved market segments, as defined in Appendix A to the 2018 conservatorship scorecard, are to be excluded from the $35 billion cap.	**The objective was completed.**
FHFA expects the Enterprises to continue single-family and multifamily credit risk transfers as core business practices. FHFA will adjust targets as necessary to reflect market conditions and economic considerations. FHFA expects the Enterprises to continue to refine and improve their credit risk transfer programs. FHFA expects the Enterprises to transfer a meaningful amount of credit risk and will publish in CRT progress reports the actual amount of credit risk transferred by each Enterprise.	
Single-Family Credit Risk Transfers: • Transfer a meaningful portion of credit risk on at least 90 percent of the unpaid principal balance (UPB) of newly acquired single-family mortgages in loan categories targeted for credit risk transfer, subject to FHFA target adjustments as may be necessary to reflect market conditions and economic considerations. • For 2018, targeted single-family loan categories include: non-HARP, fixed-rate mortgages with terms greater than 20 years and loan-to-value (LTV) ratios above 60 percent. Additional information on CRT targeted loan categories is in Appendix B to the 2018 conservatorship scorecard. • Report to FHFA the actual amount of underlying mortgage credit risk transferred.	**The objective was completed.** FHFA noted that we exceeded our single-family credit risk transfer targets and in November 2018 executed the first CAS REMIC transaction.
Multifamily Credit Risk Transfers: • Transfer a meaningful portion of the credit risk on newly acquired mortgages, subject to FHFA target adjustments as may be necessary to reflect market conditions and economic considerations. • Report to FHFA the actual amount of underlying mortgage credit risk transferred.	**The objective was completed.** FHFA noted that we executed additional types of multifamily CRT in 2018.
Retained Portfolio: • Execute FHFA-approved retained portfolio plans that meet, even under adverse conditions, the annual senior preferred stock purchase agreement ("PSPA") requirements and the $250 billion PSPA cap by December 31, 2018. Any sales should be commercially reasonable transactions that consider impacts to the market, borrowers, and neighborhood stability.	**The objective was completed.** We reduced our retained mortgage portfolio below the PSPA cap more than one year ahead of schedule.
Private Mortgage Insurer Eligibility Requirements (PMIERs 2.0): • Evaluate existing PMIERs and whether changes or updates are appropriate.	**The objective was completed.** We published PMIERs 2.0 on our website in September 2018.

Objectives and Weighting	Performance Assessment
Common Securitization Platform (CSP) and Single Security Initiative: *The Enterprises and Common Securitization Solutions, LLC (CSS) are to implement the Single Security Initiative on the CSP for both Fannie Mae and Freddie Mac in the second quarter of 2019.* • Continue working with FHFA, each other, and CSS to implement the Single Security Initiative on the CSP for both Enterprises. • Incorporate the following design principles in developing the CSP: • Focus on the functions necessary for current Enterprise single-family securitization activities. • Include the development of operational and system capabilities necessary for CSP to facilitate the issuance and administration of a common, single security for the Enterprises. • Allow for the integration of additional market participants in the future. • Continue to work with each other and CSS to obtain and use input from the Single Security Initiative/CSP Industry Advisory Group. • Work proactively with the industry to help market participants prepare for the implementation of the Single Security Initiative.	**The objective was completed.** FHFA noted that we made progress on the CSP and Single Security Initiative in 2018 by completing a series of major development and testing cycles, system-to-system testing and joint end-to-end testing with CSS.
Provide Active Support for Mortgage Data Standardization Initiatives: • Continue the development and implementation of the Uniform Closing Dataset. • Continue implementation of the redesigned Uniform Residential Loan Application and the Uniform Loan Application Dataset/Automated Underwriting System specifications. • Assess and, as appropriate, begin implementation of strategies to redesign the Uniform Appraisal Dataset.	**The objective was completed.**

Assessment of Corporate Performance against 2018 Board of Directors' Goals

In January 2018, the Board of Directors established the 2018 Board of Directors' goals, which are presented in the table below. Performance against these goals was a factor the Board of Directors considered in determining the individual performance of the named executives, other than our Interim Chief Executive Officer and former Chief Executive Officer, for purposes of the individual performance-based component of the named executives' 2018 at-risk deferred salary. Over the course of 2018, management periodically reviewed the 2018 Board of Directors' goals and maintained a dialogue with the Board of Directors and appropriate committees of the Board of Directors as to management's performance against these goals.

In late 2018 and early 2019, the Compensation Committee reviewed our performance against the 2018 Board of Directors' goals. In connection with the Compensation Committee's review, management provided the Compensation Committee with a report assessing management's performance against the goals, which was reviewed for accuracy by our Internal Audit group. The Compensation Committee also discussed performance against the goals with the Chair of the Audit Committee and the Chair of the

Risk Policy and Capital Committee. Management provided several updates to the Compensation Committee and Board of Directors based on year-end results. The Compensation Committee considered management's assessment of its performance against the goals and also discussed the company's performance with our Interim Chief Executive Officer and President. In addition, the Compensation Committee discussed the performance of each named executive (other than the Interim Chief Executive Officer and our former Chief Executive Officer) with our Interim Chief Executive Officer.

The Compensation Committee noted in its review that management executed the 2018 conservatorship scorecard and Board of Directors' goals in a manner that reflects its continued commitment to the safe and sound management of the company, complemented by a serious commitment to innovative change. The Compensation Committee found that the company made meaningful progress during a time of fundamental institutional transformation, while remaining focused on delivering quality services and products in a disciplined risk-controlled environment. The Compensation Committee noted that 2018 was a year of significant leadership transitions for the company, including the bifurcation of the role of President and Chief Executive Officer, the departure of the company's Chief Executive Officer, the departure of the company's General Counsel, and new leaders joining and transitioning within the senior management team. The company also completed the consolidation and relocation of staff in Washington, DC to the company's new headquarters. Through this period of transition, the Compensation Committee recognized management's accomplishments, many of which were geared toward developing new strategies through pilot programs, furthering the company's values through increased focus on diversity and inclusion, expanding the implementation of the Way of Working management system, and becoming a more outcome-driven organization that serves the company's customers and stakeholders more efficiently and effectively. The Compensation Committee highlighted its view that management demonstrated an extraordinary level of resilience in the face of significant changes while surpassing nearly all corporate performance milestones, certain of which the Compensation Committee acknowledged were aspirational. In particular, the Compensation Committee commended management for launching a number of innovative pilot programs, improving automation and the customer experience, running its business at an exceptionally high level and operating profitably in 2018.

The Board of Directors did not assign any relative weight to the Board of Directors' goals and the Compensation Committee used its judgment in determining the overall level of performance. In November 2018, following its review of management's and the company's performance in 2018, and after discussions among the independent members of the Board of Directors, the Compensation Committee recommended and the Board of Directors determined that corporate performance against the 2018 Board of Directors' goals was 100%. In January 2019, after reviewing year-end results, the Compensation Committee and the Board of Directors confirmed their November 2018 assessment of 2018 corporate performance and also assessed the 2018 individual performance of each named executive (other than our former Chief Executive Officer) at this time. Following these assessments, the Compensation Committee recommended and the Board of Directors determined that each named executive with at-risk deferred salary for 2018 would receive 100% of his or her individual performance-based at-risk deferred salary target for 2018, as described in "Assessment of 2018 Individual Performance" below.

The Compensation Committee provided FHFA with its assessments of corporate performance against the 2018 Board of Directors' goals and its qualitative assessments of management's performance against the 2018 conservatorship scorecard objectives. In January 2019, FHFA approved the individual performance-based at-risk deferred salary payments for the applicable named executives.

The table below sets forth our 2018 Board of Directors' goals and a summary of the Compensation Committee's assessment of our achievement against these goals.

Board of Directors' Goals	Assessment of Performance
Advancing a sustainable and reliable business model with low risk to the housing finance system and taxpayers.	**The goal was achieved.** In 2018, we met all of our objectives relating to this strategic goal. We exceeded our objectives for single-family credit risk transfers and return on conservator capital for our single-family and multifamily loan acquisitions. We also met our modeled capital and market share objectives.
Providing great service to our customers and partners, enabling them to serve the needs of American households more effectively.	**The goal was achieved.** We undertook a number of activities and completed various initiatives in 2018 to achieve this strategic goal, including achieving high customer satisfaction metrics, completing a number of pilots designed to improve service to our customers, transitioning a number of pilots designed to improve customer service to the appropriate business unit, reducing loan application to delivery times for a select group of single-family lenders, and expanding initiatives to reduce single-family loan servicing costs.
Supporting and sustainably increasing access to credit and affordable housing.	**The goal was achieved.** We undertook a number of activities in 2018 to achieve this strategic goal, including meeting our 2018 single-family and multifamily housing goal milestones, executing on our 2018 Duty to Serve plan to serve three specified underserved markets (manufactured housing, affordable housing preservation and rural areas), and advancing a number of new affordable housing and sustainable communities pilots. FHFA will make the final determination on whether we have met our 2018 housing goal and Duty to Serve plan requirements.

Board of Directors' Goals	Assessment of Performance
Building a simple, efficient, innovative, and continuously improving company.	**The goal was achieved.** In 2018, we met all of our objectives relating to this strategic goal, including: • We successfully managed expenses to below our plan. • We accomplished significant progress toward successfully completing a number of top-tier, strategic projects to improve our technology infrastructure, including projects aimed at simplifying the customer experience and improving our data infrastructure. • We made substantial progress on our workplace strategy initiative relating to the relocation of our business headquarters and other offices, including completing the relocation of our headquarters ahead of schedule. • We resolved all medium and high priority internal audit issues, medium and high priority compliance issues, and risk and control matters identified by FHFA within established timeframes or mutually acceptable extensions. • We managed our business within the risk limits approved by the Board of Directors. • We continued to implement plans designed to improve the effectiveness of our organization, including continuing to increase the percentage of our workforce using our Way of Working management system. • We exceeded our employee engagement benchmark. • We met our objective relating to the diversity of borrowers using our primary access to credit initiative (HomeReady®) and also met objectives relating to the diversity of our workforce, suppliers, and capital markets and financial transaction partners.

Assessment of 2018 Individual Performance

Overview. The Board of Directors assessed the performance of our Interim Chief Executive Officer, who does not receive at-risk deferred salary, against goals prepared for the Interim Chief Executive Officer, with input from the Compensation Committee. The Compensation Committee and the Board of Directors assessed the performance and approved compensation for our other current named executives taking into account our Interim Chief Executive Officer's recommendation and assessment. Half of each of these named executive's 2018 at-risk deferred salary was subject to reduction based on individual performance in 2018. Pursuant to the assessments and determinations by the Compensation Committee, the Board of Directors and FHFA, each of our named executives with at-risk deferred salary for 2018 will be paid 100% of his or her individual performance-based at-risk deferred salary target for 2018, as presented in the "Summary of2018 Compensation Actions" table above. The Compensation Committee and the Board of Directors did not assess the performance of our former Chief Executive Officer, who did not receive at-risk deferred salary.

Hugh Frater, Interim Chief Executive Officer. Mr. Frater became our Interim Chief Executive Officer in October 2018. In evaluating Mr. Frater's 2018 performance, the Board of Directors acknowledged his exceptional leadership as he stepped into the chief executive officer role on an interim basis late in the year during a period of fundamental transformation in the organization. Mr. Frater made significant contributions to Fannie Mae's numerous accomplishments in 2018, including overseeing management's completion of its work to achieve the objectives set forth in the 2018 conservatorship scorecard and 2018 Board of Directors' goals, which we refer to jointly in this discussion as the company's 2018 goals. Fannie Mae's management demonstrated exceptionally high quality performance in 2018. During a time of significant change—including several changes in the Board of Directors and senior executive leadership, and the transition to a new headquarters location—Fannie Mae's management continued to operate the company profitably, deliver quality services and products in a disciplined risk-controlled environment, and remained focused on achieving the company's objectives. The Board of Directors commended Mr. Frater's seamless transition in leading the company on an interim basis while the Board conducts its search for a permanent chief executive officer, as well as Mr. Frater's critical role in helping the company complete its 2018 achievements.

David Benson, President; Former Executive Vice President and Chief Financial Officer. Mr. Benson was promoted to President in August 2018, and prior to that time served as Executive Vice President and Chief Financial Officer. Mr. Benson's continued strong leadership in 2018 was critical to the company's extraordinary resilience during a period of fundamental transformation in the organization. Mr. Benson's success in taking on the expanded responsibilities associated with his promotion to the President role was a key factor in the company's ability to achieve its 2018 goals and keep operations running efficiently. The company experienced several leadership transitions in 2018, including the bifurcation of the President and Chief Executive Officer roles, the departure of the company's Chief Executive Officer and hire of an Interim Chief

Executive Officer, the departure of the company's General Counsel, a new Chief Financial Officer, a new Chief Operating Officer and a new Chief Risk Officer. Mr. Benson's steady leadership was instrumental in the smooth transition of the company's senior leadership in 2018. Mr. Benson also challenged the company's senior leadership team to increase their engagement, transparency, joint ownership and strategic focus in 2018. In addition, Mr. Benson had many significant accomplishments in 2018 in his prior role as Chief Financial Officer of the company in the first seven months of the year, including successfully achieving all 2018 objectives relating to the transformation of the Finance organization, continuing to develop the capabilities and cohesion of the Finance leadership team, and completing certain technology-related initiatives. Mr. Benson also led the company's 2018 update of its strategic plan, including working with the company's Board of Directors to develop and enhance the plan. Mr. Benson also continued to provide leadership in Fannie Mae's interactions with customers, others in the industry and FHFA.

Celeste Brown, Executive Vice President and Chief Financial Officer. Ms. Brown was promoted to Executive Vice President and Chief Financial Officer in August 2018, and prior to that time served as Senior Vice President and Deputy Chief Financial Officer. Ms. Brown's many accomplishments in 2018 provided critical support to Fannie Mae's achievement of the company's 2018 goals. In 2018, Ms. Brown led the company's efforts and engaged with FHFA on the conservatorship capital framework, and developed a target operating model for the company's capital management. Ms. Brown enhanced the development of the company's Finance transformation strategy and initiated the development of a cross-finance data strategy. She successfully led efforts relating to financial planning and cost allocation. In addition, Ms. Brown continued to drive the adoption of our Way of Working management system within our Finance division, invested in training and development for the Finance organization, and made appointments and organizational changes that improved the structure of the division and enhanced our depth of Finance division talent.

Andrew Bon Salle, Executive Vice President—Single-Family Mortgage Business. Mr. Bon Salle's 2018 performance contributed to the company's achievement of its 2018 goals in a number of significant ways. In 2018, Mr. Bon Salle maintained strong profitability and market share in our single-family guaranty business while maintaining a safe and sound approach to risk/return management; met all single-family housing goals; exceeded the 2018 objectives for single-family credit risk transfer transactions; and further drove the customer-centric culture change throughout the Single-Family organization, resulting in a high level of customer satisfaction and engagement. Mr. Bon Salle also oversaw continued development of our Single-Family business operating model to strengthen our ability to serve as a valued housing partner, better prioritize resources and support key initiatives; continued to drive the adoption of our Way of Working management system in the Single-Family business while also championing its adoption across the company; further improved our Single-Family business employee engagement; and continued to develop future Single-Family business leaders. In addition, Mr. Bon Salle maintained strong personal engagement with customers, other industry participants and FHFA.

Jeffery Hayward, Executive Vice President and Head of Multifamily. Mr. Hayward's 2018 achievements include his delivery of strong multifamily business results and significant contributions to the achievement of the company's 2018 goals. In 2018, Mr. Hayward maintained strong profitability and market share in our multifamily business while operating it in a safe and sound manner; met all multifamily housing goals; met the 2018 objectives for multifamily credit risk transfer transactions, including executing additional types of multifamily credit risk transfer transactions in 2018; continued to grow the multifamily guaranty book of business; finalized substantial improvements to our multifamily technology platform to improve operating efficiency and enhance the lender experience; maintained a high level of customer satisfaction and engagement; met the company's 2018 objectives relating to multifamily customer service; maintained high Multifamily business employee engagement and a high level of diversity in the Multifamily business workforce compared with industry benchmarks; and completed pilots for a number of innovative programs to create multi-sector partnerships to promote sustainable communities. Mr. Hayward continued to lead the company's affordable housing efforts, including a successful launch of Duty to Serve and our re-entry into the low income housing tax credit business. Mr. Hayward also continued to maintain strong personal engagement with customers, others in the industry and FHFA.

Kimberly Johnson, Executive Vice President and Chief Operating Officer. Ms. Johnson was promoted to Executive Vice President and Chief Operating Officer in March 2018, and prior to that time served as Executive Vice President and Chief Risk Officer. Ms. Johnson's numerous 2018 achievements provided critical support to Fannie Mae's attainment of the company's 2018 goals and significantly contributed to the company's improved business resiliency and operational efficiency. Through Ms. Johnson's leadership, the company successfully deployed and tested critical business applications in its out of region data center, reduced the company's cybersecurity risk, and successfully deployed new building technology to promote collaboration, mobility and productivity in connection with the company's office relocations. Ms. Johnson also led initiatives to improve the company's technology infrastructure; created an integrated technology solutions team; began initiatives relating to automation and machine learning; realigned the company's operating model around enterprise capabilities and business delivery; launched an effort to improve the efficiency of the Chief Operating Office division; and aligned digital efforts across the company in support of business outcomes. Ms. Johnson also assisted with the transition of her former responsibilities as Chief Risk Officer to the company's new

Chief Risk Officer.

Other Executive Compensation Considerations

Role of Compensation Consultants

“

- preparing an analysis of compensation for the chief executive officer position and our Chief Financial Officer in comparison to comparable positions at companies in our primary comparator group, based on information in proxy statements and other reports filed by those companies with the SEC;
- reviewing McLagan’s analysis of market compensation data for select senior management positions;

- assisting the Compensation Committee in its evaluation of our performance against the 2018 Board of Directors’ goals
- facilitating the Compensation Committee’s evaluation of our Interim Chief Executive Officer’s performance;

- providing guidance and feedback on our 2018 executive compensation program;
- defining the protocol regarding benchmarking for executives;
- advising on market trends, competitive pay levels and various compensation proposals for new hires and promotions;
- providing market compensation data for senior management positions, including the named executives’ positions; and
- reviewing market data and trends, and providing Compensation Committee members with an opportunity to ask questions and discuss implications of trends on Fannie Mae.

Compensation Consultant Independence Assessment

The Compensation Committee assessed the independence of FW Cook and McLagan. Based on its assessments, the Compensation Committee determined that FW Cook is independent from management and that FW Cook’s work for the Compensation Committee raises no conflicts of interest.

Because McLagan was retained by and provides services to management, it is not an independent adviser. McLagan’s work raises no material conflicts of interest, and any conflict of interest raised by McLagan’s retention and provision of services to management as well as to the Compensation Committee is addressed by the Compensation Committee’s receipt of advice from and access to FW Cook as its independent compensation consultant.

Comparator Group and Role of Benchmark Data

Our Compensation Committee typically requests benchmark compensation data for our senior executives on an annual basis to assess the compensation of the company’s senior executives relative to our comparator group or other appropriate benchmarks described below. The Compensation Committee uses benchmark compensation data as one of a number of factors that inform its compensation decisions. Finding comparable firms for purposes of benchmarking executive compensation is challenging due to our unique business, structure and mission, and the large size of our book of business compared to other financial services firms. The only directly comparable firm to us is Freddie Mac. At FHFA’s request, we and Freddie Mac use the same comparator group of companies for benchmarking executive compensation to provide consistency in the market data used for compensation decisions. Factors relevant to the selection of companies for our comparator group included their status as U.S. public companies, the industry in which they operate (each is a commercial bank, insurance company, finance lessor, government-sponsored enterprise or financial technology firm) and their size (in terms of assets and number of employees) relative to the size of Fannie Mae. Our primary comparator group, which was developed and approved by FHFA and the Compensation Committee in 2017, consists of the following 25 companies:

- Allstate Corporation
- Ally Financial Inc.
- American International Group Inc.
- American Express Company
- Bank of New York Mellon Corporation
- BB&T Corporation
- Capital One Financial Corporation
- Citizens Financial Group Inc.
- Discover Financial Services
- Fifth Third Bancorp
- Freddie Mac
- Hartford Financial Services Group, Inc.
- KeyCorp
- Mastercard
- MetLife, Inc.
- Northern Trust Corporation
- PNC Financial Services Group, Inc.
- Prudential Financial, Inc.
- Regions Financial Corporation
- State Street Corporation
- SunTrust Banks, Inc.
- Synchrony Financial
- U.S. Bancorp
- Visa Inc.
- Voya Financial Inc.

The Compensation Committee follows a bifurcated approach to benchmarking the compensation of senior executive positions. Under this approach, while the comparator group noted above is the primary group of companies used for benchmarking senior management pay levels, for certain senior management roles that are more comparable in function and/or scope to roles at firms outside this comparator group, the Compensation Committee considers pay levels against a broader group of companies. The company believes this more comprehensive approach results in more reliable market data.

The named executives' compensation was compared to compensation at other companies as follows:

- The compensation of our current Chief Financial Officer (Ms. Brown) was benchmarked against our primary comparator group identified above;
- The compensation of our current President (Mr. Benson) was benchmarked against our primary comparator group identified above as well as other U.S.-based financial services firms to the extent those firms have executives in comparable positions;
- The compensation of our Executive Vice President and Chief Operating Officer (Ms. Johnson) was benchmarked against our primary comparator group identified above as well as a group of large banks consisting of Bank of America Corporation, Citigroup Inc., JPMorgan Chase & Co. and Wells Fargo & Company; and
- The compensation of our Executive Vice President—Single-Family Mortgage Business (Mr. Bon Salle) and our Executive Vice President and Head of Multifamily (Mr. Hayward) was benchmarked against our primary comparator group identified above as well as the group of large banks noted above, and other U.S.-based financial services firms and specialty mortgage lending organizations, to the extent those firms have executives in comparable positions.

In late 2018, FW Cook provided the Compensation Committee with a comparison of 2018 total target direct compensation for our current Chief Financial Officer with 2017 compensation for the comparable position at companies in our primary comparator group, based on FW Cook's analysis of proxy statements and other SEC filings. McLagan also provided the Compensation Committee with updated benchmarking data for our named executives (and other senior leadership roles) other than our Chief Financial Officer, our Interim Chief Executive Officer or our former Chief Executive Officer. The McLagan data compared the named executives' total direct compensation for 2018 with market ranges of 2017 direct compensation for comparable positions in the applicable comparator group of companies based on McLagan's proprietary database. Members of the Compensation Committee reviewed and discussed this data in late 2018.

The compensation of Mr. Frater (our Interim Chief Executive Officer) and Mr. Mayopoulos (our former Chief Executive Officer) was not benchmarked in 2018, as Mr. Mayopoulos left the company prior to the time the benchmarking was conducted and Mr. Frater is serving as chief executive officer on an interim basis while the Board of Directors conducts a search for a successor chief executive officer. However, FW Cook provided the Compensation Committee with a comparative analysis showing that the total annual direct compensation of $600,000 for our chief executive officer position is more than 90% below the market median for 2017 chief executive officer compensation at comparable firms.

Compensation Recoupment Policy

Our executive officers' compensation (other than executive officers serving on an interim basis) is subject to the following forfeiture and repayment provisions, also known as "clawback" provisions:

- *Materially Inaccurate Information.* If an executive officer has been granted deferred salary or incentive payments (including performance-based compensation) based on materially inaccurate financial statements or any other materially inaccurate performance metric criteria, he or she will forfeit or must repay amounts granted in excess of the amounts the Board of Directors determines would likely have been granted using accurate metrics.

- *Termination for Cause.* If we terminate an executive officer's employment for cause, he or she will immediately forfeit all deferred salary and any incentive payments that have not yet become payable. We may terminate an executive officer's employment for cause if we determine that the officer has: (a) materially harmed the company by, in connection with the officer's performance of his or her duties for the company, engaging in gross misconduct or performing his or her duties in a grossly negligent manner, or (b) been convicted of, or pleaded *nolo contendere* with respect to, a felony.
- *Subsequent Determination of Cause.* If an executive officer's employment was not terminated for cause, but the Board of Directors later determines, within a specified period of time, that he or she could have been terminated for cause and that the officer's actions materially harmed the business or reputation of the company, the officer will forfeit or must repay, as the case may be, deferred salary and any incentive payments received by the officer to the extent the Board of Directors deems appropriate under the circumstances. The Board of Directors may require the forfeiture or repayment of all deferred salary and any incentive payments so that the officer is in the same economic position as if he or she had been terminated for cause as of the date of termination of his or her employment.
- *Effect of Willful Misconduct.* If an executive officer's employment: (a) is terminated for cause (or the Board of Directors later determines that cause for termination existed) due to either (i) willful misconduct by the officer in connection with his or her performance of his or her duties for the company or (ii) the officer has been convicted of, or pleaded *nolo contendere* with respect to, a felony consisting of an act of willful misconduct in the performance of his or her duties for the company and (b) in the determination of the Board of Directors, this has materially harmed the business or reputation of the company, then, to the extent the Board of Directors deems it appropriate under the circumstances, in addition to the forfeiture or repayment of deferred salary and any incentive payments described above, the executive officer will also forfeit or must repay, as the case may be, deferred salary and annual incentives or long-term awards paid to him or her in the two-year period prior to the date of termination of his or her employment or payable to him or her in the future. Misconduct is not considered willful unless it is done or omitted to be done by the officer in bad faith or without reasonable belief that his or her action or omission was in the best interest of the company.

In addition, under Section 304 of the Sarbanes-Oxley Act of 2002, certain of the incentive-based compensation for individuals serving as our chief executive officer or chief financial officer, including compensation received for prior years, could become subject to reimbursement.

Stock Ownership and Hedging Policies

We ceased paying new stock-based compensation to our executives after entering into conservatorship in September 2008. In 2009, our Board of Directors eliminated our stock ownership requirements. All employees, including our named executives, are prohibited from transacting in options, puts, calls or other derivative securities relating to Fannie Mae's securities, on an exchange or in any other organized market.

Tax Deductibility of our Compensation Expenses

Subject to certain exceptions, Section 162(m) of the Internal Revenue Code imposes a $1 million limit on the amount of compensation a company may annually deduct for the chief executive officer, chief financial officer and the three most highly compensated employees who were acting as executive officers at any time during the year, as well as any other person who was covered under Section 162(m) for a taxable year beginning after December 31, 2016. We have not adopted a policy requiring all compensation to be deductible under Section 162(m).

Compensation Committee Report

The Compensation Committee of the Board of Directors of Fannie Mae has reviewed and discussed the Compensation Discussion and Analysis included in this Form 10-K with management. Based on such review and discussions, the Compensation Committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this Form 10-K.

Compensation Committee:

Diane C. Nordin, Chair
Robert H. Herz, Vice Chair
Michael J. Heid
Ryan A. Zanin

Compensation Risk Assessment

Our Enterprise Risk Management division conducted a risk assessment of our 2018 employee compensation policies and practices. In conducting this risk assessment, the division reviewed the following, among other things:

- our performance goals, pay mix and compensation structure;
- the $600,000 limit on annual direct compensation for our chief executive officer position under the Equity in Government Compensation Act of 2015;
- our severance arrangements;
- our compensation clawback provisions;
- the oversight of aspects of our compensation by the Compensation Committee, the Board of Directors and FHFA; and
- our corporate culture with regard to risk.

The division also assessed whether policies, procedures or other mitigating factors existed that would reduce the opportunity for excessive or inappropriate risk-taking within our compensation policies and practices. Our Chief Risk Officer discussed the risk assessment of the company's 2018 compensation policies and practices with the Compensation Committee.

Based on the risk assessment, management concluded that our 2018 employee compensation policies and practices do not create risks that are reasonably likely to have a material adverse effect on the company. A number of factors contributed to this conclusion, including:

- the 2018 conservatorship scorecard objectives and the 2018 Board of Directors' goals do not encourage unnecessary or excessive risk-taking;
- our Board and management risk limits inhibit excessive risk taking; and
- the overall design of our compensation structure, including that deferred salary for our executive officers is subject to clawback provisions.

Management stated in its risk assessment that the cap on our chief executive officer compensation continues to increase the risk that we may be unable to retain our chief executive officer, engage in effective succession planning or attract qualified candidates for this critical role. Management also stated in its risk assessment that the search for a successor chief executive officer is expected to be complex and difficult due to this compensation restriction.

As discussed in "Risk Factors," the conservatorship, the uncertainty of our future and limitations on our compensation 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.

Compensation Tables and Other Information

Summary Compensation Table

The following table shows summary compensation information for the named executives.

Summary Compensation Table for 2018, 2017 and 2016

Name and Principal Position	Year	Salary: Base Salary(1)	Salary: Fixed Deferred Salary (Service-Based)(2)	Bonus(3)	Non-Equity Incentive Plan Compensation(4)	All Other Compensation(5)	Total
Hugh Frater	**2018**	**$113,077**	**$ —**	**$ —**	**$ —**	**$ 139,615**	**$252,692**
Interim Chief Executive Officer							
Timothy Mayopoulos	**2018**	**486,923**	**—**	**—**	**—**	**38,954**	**525,877**
Former Chief Executive	2017	600,000	—	—	—	48,000	648,000
Officer	2016	600,000	—	—	—	100,846	700,846
Celeste Brown	**2018**	**505,769**	**794,615**	**700,000**	**562,212**	**549,475**	**3,112,071**
Executive Vice President and Chief Financial Officer							
David Benson	**2018**	**600,000**	**1,669,615**	**—**	**981,252**	**135,535**	**3,386,402**
President; Former	2017	600,000	1,500,000	—	903,825	150,875	3,154,700
Executive Vice President and Chief Financial Officer	2016	600,000	1,500,000	—	893,896	151,125	3,145,021
Andrew Bon Salle	**2018**	**500,000**	**1,741,346**	**—**	**969,030**	**97,824**	**3,308,200**
Executive Vice President	2017	500,000	1,578,462	—	894,556	89,208	3,062,226
—Single-Family Mortgage Business	2016	500,000	1,287,692	—	760,957	86,762	2,635,411
Jeffery Hayward	**2018**	**500,000**	**1,209,615**	**—**	**739,140**	**112,991**	**2,561,746**
Executive Vice President	2017	498,077	1,033,846	—	659,328	122,086	2,313,337
and Head of Multifamily	2016	475,000	960,000	—	610,829	117,505	2,163,334
Kimberly Johnson	**2018**	**500,000**	**1,093,846**	**—**	**689,088**	**90,318**	**2,373,252**
Executive Vice President and Chief Operating Officer							

(1) Amounts shown in this sub-column consist of base salary paid during the year on a bi-weekly basis.

(2) Amounts shown in this sub-column consist of the fixed, service-based portion of deferred salary. Deferred salary shown for 2018 generally will be paid in four equal installments in March, June, September and December 2019. Deferred salary accrues interest at one-half of the one-year Treasury Bill rate in effect on the last business day preceding the year in which the deferred salary is earned. For deferred salary earned in 2018, this rate is 0.88% per year. Interest on the named executives' fixed deferred salary is shown in the "All Other Compensation" column. Deferred salary shown for 2017 was paid to our named executives during 2018.

(3) The amount shown in this column consists of the second installment of Ms. Brown's sign-on award. See "Compensation Discussion and Analysis—Determination of 2018 Compensation—Compensation Arrangements with Current Chief Financial Officer" above for more information regarding Ms. Brown's sign-on award.

(4) Amounts shown in this column consist of the at-risk, performance-based portion of deferred salary earned during the year and interest payable on that deferred salary. The table below provides more detail on the 2018 at-risk deferred salary awarded to our named executives.

Performance-Based At-Risk Deferred Salary

Name	2018 Corporate Performance-Based At-Risk Deferred Salary	2018 Individual Performance-Based At-Risk Deferred Salary	Interest Payable on 2018 At-Risk Deferred Salary	Total
Hugh Frater				