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, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from

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	800 232-6643
(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:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
None	N/A	N/A

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 ☑

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 ☑

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

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

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

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 28, 2019 (the last business day of the registrant's most recently completed second fiscal quarter) was approximately $3.1 billion.

As of January 31, 2020, 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. The U.S. Department of the Treasury ("Treasury") released a plan in September 2019 for housing finance reform (the "Treasury plan") that includes recommendations related to ending our conservatorship, and FHFA has established 2020 performance objectives for us that include preparing for our eventual exit from 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 $25 billion in capital reserves or to pay dividends or other distributions to stockholders other than 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 developments relating to housing finance reform, 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 This Report" in "Management's Discussion and Analysis of Financial Condition and Results of Operations ('MD&A')."

Item 1. Business

Introduction

Fannie Mae is a leading source of financing for mortgages in the United States. Our earnings are primarily driven by guaranty fees we receive for managing the credit risk on mortgage-backed securities we issue. Our mission is to provide a stable source of liquidity to support housing in the U.S. for low- and moderate-income borrowers and renters. We operate in the secondary mortgage market, primarily working with lenders, who originate loans to borrowers. We do not originate loans or lend money directly to borrowers 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 access to credit and the supply of affordable housing. Through our single-family and multifamily business segments, we provided over $650 billion in liquidity to the mortgage market in 2019, which enabled the financing of approximately 3 million home purchases, refinancings or rental units.

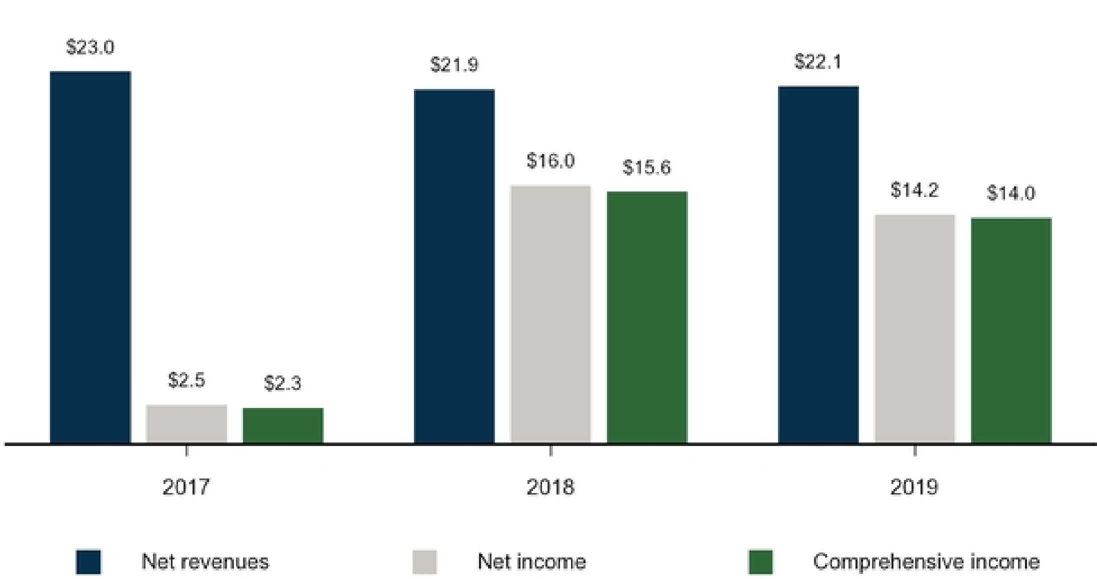
Fannie Mae Provided Over $650 billion in Liquidity in 2019

Unpaid Principal Balance	Units
$313B	1.2M Single-Family Home Purchases
$283B	1.1M Single-Family Refinancings
$70B	726K Multifamily Rental Units

Executive Summary

Please read this Executive Summary together with our MD&A and our consolidated financial statements as of December 31, 2019 and the accompanying notes.

Summary of Our Financial Performance



2017 vs. 2018

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:

- a one-time tax charge recorded in 2017 for federal income taxes in the amount of $9.9 billion; and
- the lower corporate tax rate in effect for 2018 as a result of the Tax Cuts and Jobs Act (the "Tax Act").

2018 vs. 2019

The decrease in our net income in 2019 compared with 2018 was primarily driven by a shift from fair value gains in 2018 to fair value losses in 2019 as a result of decreasing interest rates throughout most of 2019.

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

Net worth. Our net worth was $14.6 billion as of December 31, 2019.

Financial performance. Our long-term financial performance will depend on many factors, including:

- the size of the GSEs' share and our share of the U.S. mortgage market, which in turn will depend upon such factors as population growth, household formation and home price appreciation;
- borrower performance and interest rate movements; and
- actions by FHFA, the Administration and Congress relating to our business and housing finance reform, including the capital requirements that will be applicable to us, our ongoing financial obligations to Treasury, potential restrictions on our activities and our business footprint, and our competitive environment.

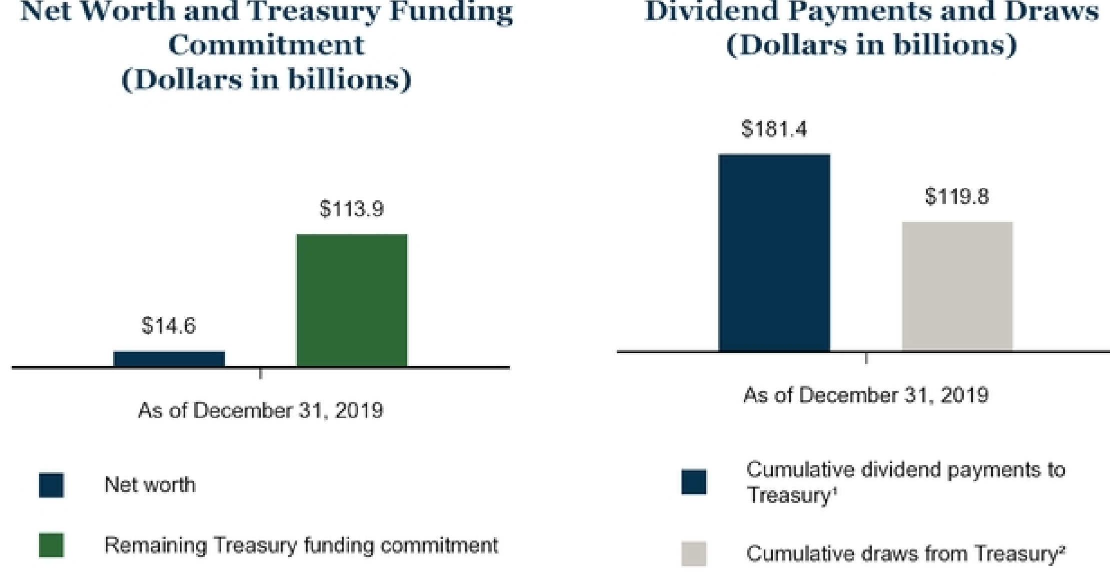
Quarterly fluctuations in acquisition volumes, market share, guaranty fees, or acquisition credit characteristics in any one period have limited impact on the size and stability of our conventional guaranty book of business and the associated revenue, profitability, and credit quality.

Net Worth, Treasury Funding and Senior Preferred Stock Dividends

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. We paid 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 in 2008.

Under the terms of the senior preferred stock, effective with the third quarter 2019 dividend period, we will not owe dividends to Treasury until we have accumulated over $25 billion in net worth as of the end of a quarter. Accordingly, no dividends were payable to Treasury for the fourth quarter of 2019, and none are payable for the first quarter of 2020. Changes in our net worth can be significantly impacted by market conditions that affect our net interest income; fluctuations in the estimated fair value of our derivatives and other financial instruments that we mark to market through our earnings; developments that affect our loss reserves such as 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.”

The charts below show information about our net worth, the remaining amount of Treasury’s funding commitment to us, senior preferred stock dividends we have paid Treasury and funds we have drawn from Treasury pursuant to its funding commitment.



(1) Aggregate amount of dividends we have paid to Treasury on the senior preferred stock from 2008 through December 31, 2019. Under the terms of the senior preferred stock purchase agreement, dividend payments we make to Treasury do not offset our draws of funds from Treasury.

(2) Aggregate amount of funds we have drawn from Treasury pursuant to the senior preferred stock purchase agreement from 2008 through December 31, 2019.

The aggregate liquidation preference of the senior preferred stock increased from $127.2 billion as of September 30, 2019 to $131.2 billion as of December 31, 2019 due to the increase in our net worth during the third quarter of 2019. The aggregate liquidation preference of the senior preferred stock will further increase to $135.4 billion as of March 31, 2020 due to the increase in our net worth during the fourth quarter of 2019.

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 owns our senior preferred stock and a warrant to purchase 79.9% of our common stock. Treasury has also made a commitment under the senior preferred stock purchase agreement to provide us with funds to maintain a positive net worth under specified conditions. However, 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.

Planning for Changing Market and Regulatory Conditions

We adopted, and FHFA approved, a new strategic plan in early 2020 in light of changing regulatory and market conditions. In September 2019, Treasury released its plan for housing finance reform, which includes recommendations related to ending our conservatorship, and in October 2019 FHFA released 2020 performance objectives for Fannie Mae and Freddie Mac (the "government-sponsored enterprises" or "GSEs") that include preparing for our eventual exit from conservatorship. The Treasury plan contains a number of recommendations that could significantly affect our competitive environment. FHFA's performance objectives include focusing on our core mission responsibilities to foster competitive, liquid, efficient, and resilient national housing finance markets that support sustainable homeownership and affordable rental housing. Our strategic objectives are designed to ensure we are ready for the market and regulatory changes we anticipate:

- an eventual exit from conservatorship;
- a more competitive landscape, in which competition could come from both traditional parties and firms using new technological approaches; and
- the need to attract private investment capital as a full participant in the global capital markets.

We discuss the Treasury plan and FHFA's objectives more fully in "Conservatorship, Treasury Agreements and Housing Finance Reform—Housing Finance Reform."

Our Strategic Objectives

Our new strategic plan contains three objectives:

- Ensure that we are a return-oriented company that is able to attract private capital while managing risk to the company and the housing finance system.
- Increase operational agility and accelerate our digital transformation to deliver more value to our customers and to the broader housing finance system.
- Build on our mission-oriented activities to become a globally-recognized, top-performing ESG (environmental, social and governance) financial services company by delivering positive mission and community outcomes with our stakeholders.

Accomplishments under our Recently Completed Strategic Plan

Our pursuit of our new strategic objectives will build on our accomplishments in pursuing our prior strategic priorities:

- 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.

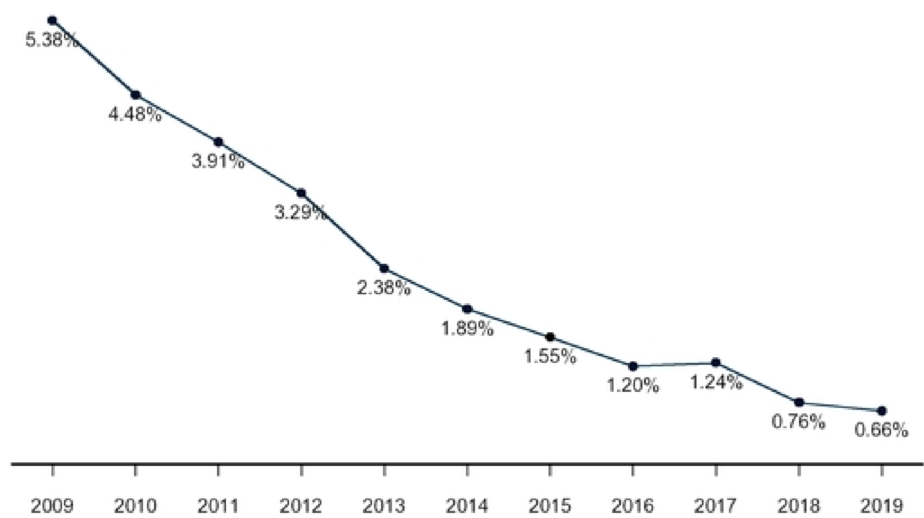
Our pursuit of these objectives improved our operations and our relationship with our customers, and helped to position us to compete effectively in a diverse and rapidly changing housing finance market.

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

We significantly changed our business model over the last decade in ways that reduced risks for the housing system and taxpayers. We strengthened our underwriting and eligibility standards, developed innovative credit risk transfer programs, and transitioned from a portfolio-driven business to a guaranty-driven business.

Over the last decade, our strong underwriting and eligibility standards significantly improved the credit quality of our single-family guaranty book of business and, combined with improvement in the overall economy, including strong home price growth, drove substantial improvement in our single-family credit performance. Our single-family serious delinquency rate decreased in 2019, primarily driven by improved loan payment performance and nonperforming loan sales. With the exception of 2017, which was marked by several major hurricanes, our single-family serious delinquency rate has decreased in each of the last ten 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.

In pursuit of advancing our sustainable and reliable business model, we developed new risk-sharing capabilities to transfer portions of our mortgage credit risk to the private market, which we discuss in "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." We also worked on significant innovations to our securitization operations and business in connection with the development and issuance of single-family uniform mortgage-backed securities, or "UMBS®", and the launch of the common securitization platform, which we discuss in "Mortgage Securitizations."

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 and our investors with products, services and tools that offer greater speed, efficiency and effectiveness is a core part of our strategy. In 2019, 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.

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 focus on supporting sustainable access to credit and affordable housing, within our risk tolerance. In recent years, market forces 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. Our work includes serving underserved markets through our duty to serve plan, which incorporates solutions to expand our reach into three underserved markets: manufactured housing; affordable housing preservation; and rural housing. We also support housing affordability through our purchases of loans to meet our single-family

and multifamily housing goals and our Multifamily business's continued investments in low income housing tax credit ("LIHTC") projects. 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 2019 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 lean and agile management principles and techniques.

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 credit risk transfer transactions.

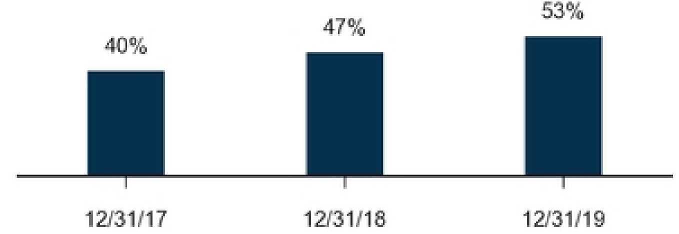
The Federal National Mortgage Association Charter Act, which we refer to as the Charter Act or our charter, requires that we obtain credit enhancements on our single-family conventional mortgage loans that have loan-to-value ("LTV") ratios over 80% when we acquire them. We use several types of credit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

In our back-end risk transfer transactions, we use risk-sharing capabilities we have developed to obtain credit enhancement by transferring portions of our single-family and multifamily mortgage credit risk on reference pools of mortgage loans 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 for these payments, our credit risk transfer transactions are designed to transfer to the investors a portion of the losses we expect would be incurred in an economic downturn or a stressed credit environment. Our more recent credit risk transfer transactions have been designed to transfer a greater share of this risk.

We enter into credit risk transfer transactions when it is economically advantageous for us to do so. Because they reduce our credit risk, our credit risk transfer transactions and other credit enhancements also help us manage our capital. Because loans are generally included in back-end credit risk transfer transactions on a lagged basis, we measure the impact of our 2019 credit risk transfer activity by how much it reduced our capital requirements on loans we acquired in 2018. Our single-family credit risk transfer transactions and primary mortgage insurance coverage through December 31, 2019 reduced our conservatorship capital requirement for the single-family loans we acquired in 2018 that were covered by these credit enhancements by over 80%. Our multifamily back-end credit risk transfer transactions and lender risk-sharing through December 31, 2019 reduced our conservatorship capital requirement for our 2018 multifamily business acquisitions by over 70%. See "Charter Act and Regulation—GSE Act and Other Legislation" for more information on the conservatorship capital framework.

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, including transactions under our Connecticut Avenue Securities® ("CAS") program and our Credit Insurance Risk Transfer™ ("CIRT™") program.

Single-Family Guaranty Book of Business with Credit Enhancement



We provide more information about loans in our single-family guaranty book of business that are currently without credit enhancement and about our single-family credit enhancement programs in "MD&A—Single-Family Business—Single-Family Mortgage Credit Risk Management." We will continue transferring credit risk to investors in 2020 and future years, subject to market conditions and our ability to obtain economically advantageous terms.

Our Multifamily business uses a shared-risk business model that distributes credit risk to the private markets, primarily through our Delegated Underwriting and Servicing ("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. The lender risk-sharing we obtain through our DUS program accompanies our multifamily loans at the time we acquire them. To complement this front-end lender-risk sharing, we also engage in back-end credit risk transfer transactions through our multifamily CIRT and Multifamily Connecticut Avenue Securities™ ("MCAS") transactions. As of December 31, 2019 and December 31, 2018, 98% of the unpaid principal balance of loans in our multifamily guaranty book of business had lender risk-sharing. In addition, the percentage of loans in our multifamily guaranty book of business that were covered by a back-end credit risk transfer transaction increased from 12% as of December 31, 2018 to 25% as of December 31, 2019.

See "MD&A—Multifamily Business—Multifamily Mortgage Credit Risk Management" for more information on how we manage credit risk in our multifamily guaranty book of business.

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) UMBS.

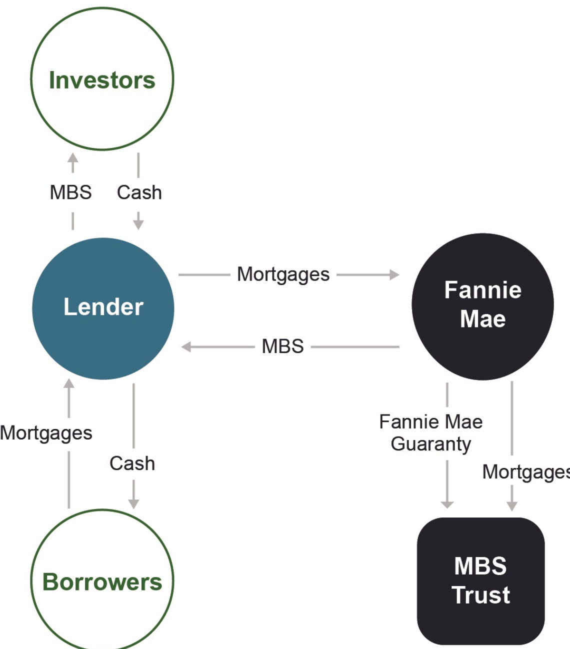
Securitization Transactions

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

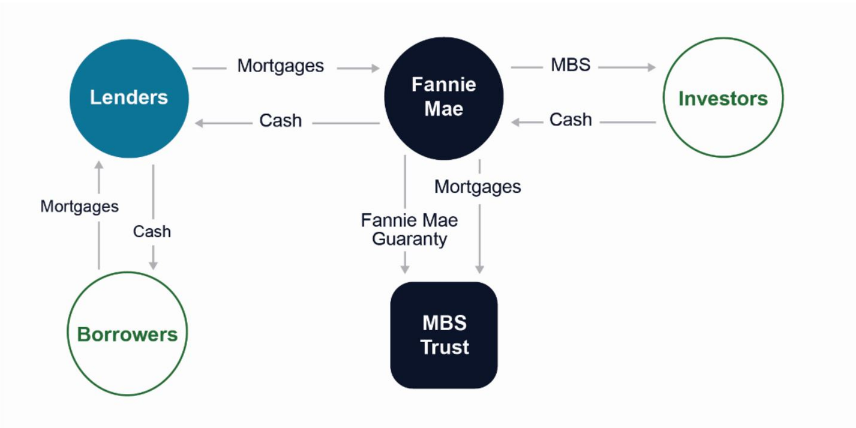


Our Multifamily business generally creates multifamily Fannie Mae MBS in lender swap transactions in a manner similar to our Single-Family business. Our multifamily lender customers typically deliver only one mortgage loan to back each multifamily Fannie Mae MBS. The characteristics of each mortgage 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 real estate mortgage investment conduit securities (“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.

Uniform Mortgage-Backed Securities, or UMBS

Overview

In May 2019, we began using the common securitization platform operated by Common Securitization Solutions, LLC (“CSS”), a limited liability company we own jointly with Freddie Mac, to perform certain aspects of the securitization process for our single-family Fannie Mae MBS issuances. In June 2019, we and Freddie Mac began issuing UMBS. This represented the final implementation of the Single Security Initiative that we, Freddie Mac and FHFA began working on in 2014 to develop a single common mortgage-backed security issued by both Fannie Mae and Freddie Mac to finance fixed-rate mortgage loans backed by single-family properties. The uniform mortgage-backed security is intended to maximize liquidity for both Fannie Mae and Freddie Mac mortgage-backed securities in the to-be-announced (“TBA”) market. The issuance of UMBS and use of the common securitization platform represent significant changes for the mortgage market and for our securitization operations and business.

UMBS and Structured Securities

Each of Fannie Mae and Freddie Mac issues and guarantees UMBS and structured securities backed by UMBS and other securities, as described below.

- **UMBS.** Each of Fannie Mae and Freddie Mac issues and guarantees UMBS that are directly backed by the mortgage loans it has acquired, referred to as “first-level securities.” UMBS issued by Fannie Mae are backed only by mortgage loans that Fannie Mae has acquired, and similarly UMBS issued by Freddie Mac are backed only by mortgage loans that Freddie Mac has acquired. There is no commingling of Fannie Mae- and Freddie Mac-acquired loans within UMBS.

  Mortgage loans backing UMBS are limited to fixed-rate mortgage loans eligible for financing through the TBA market. We continue to issue some types of Fannie Mae MBS that are not TBA-eligible and therefore are not issued as UMBS, such as single-family Fannie Mae MBS backed by adjustable-rate mortgages and all multifamily Fannie Mae MBS.

- **Structured Securities.** Each of Fannie Mae and Freddie Mac also issues and guarantees structured mortgage-backed securities, referred to as “second-level securities,” that are resecuritizations of UMBS or previously-issued structured securities. In contrast to UMBS, second-level securities can be commingled—that is, they can include both Fannie Mae securities and Freddie Mac securities as the underlying collateral for the security. These structured

securities include Supers™, which are single-class resecuritizations, and REMICs, which are multi-class resecuritizations. While Supers are backed only by TBA-eligible securities, REMICs can be backed by TBA-eligible or non-TBA-eligible securities.

The key features of UMBS are the same as those of legacy single-family Fannie Mae MBS. Accordingly, all single-family Fannie Mae MBS that are directly backed by fixed-rate loans and generally eligible for trading in the TBA market are UMBS, whether issued before or after the June 3, 2019 Single Security Initiative implementation date. In this report, we use the term **"Fannie Mae-issued UMBS"** to refer to single-family Fannie Mae MBS that are directly backed by fixed-rate mortgage loans and generally eligible for trading in the TBA market. We use the term **"Fannie Mae MBS"** or **"our MBS"** to refer to any type of mortgage-backed security that we issue, including UMBS, Supers, REMICs and other types of single-family or multifamily mortgage-backed securities. References to our single-family guaranty book of business in this report exclude Freddie Mac-acquired mortgage loans underlying Freddie Mac mortgage-related securities that we have resecuritized.

We entered into an indemnification agreement with Freddie Mac relating to the commingled structured securities that we and Freddie Mac issue. When we issue a structured security backed in whole or part by Freddie Mac securities, we provide a new and separate guaranty on the structured security. If Freddie Mac were to fail to make a payment due on its securities underlying the structured security, we would be obligated under our guaranty to fund any shortfall. Under the indemnification agreement, Fannie Mae and Freddie Mac each have agreed to indemnify the other party for losses caused by: its failure to meet its payment or other specified obligations under the trust agreements pursuant to which the underlying resecuritized securities were issued; its failure to meet its obligations under the customer services agreement described below; its violations of laws; or with respect to material misstatements or omissions in offering documents, ongoing disclosures and related materials relating to the underlying resecuritized securities.

Common Securitization Platform

The common securitization platform operated by CSS has replaced certain elements of Fannie Mae's and Freddie Mac's proprietary systems for securitizing single-family mortgages and performing associated back-office and administrative functions. The design of the common securitization platform also allows for the potential integration of additional market participants in the future. We no longer use our individual proprietary securitization function for our single-family MBS issuances. In addition to using the common securitization platform for our newly issued UMBS issuances, we are also now using the common securitization platform for certain ongoing administrative functions for our previously issued and outstanding single-family Fannie Mae MBS. We do not use the common securitization platform operated by CSS for securitizing or performing associated administrative functions for our multifamily Fannie Mae MBS.

CSS is jointly owned by us and Freddie Mac. CSS operates as a separate company from us and Freddie Mac, with all funding and limited administrative support services and other resources provided to it by us and Freddie Mac. CSS owns the common securitization platform and has granted a non-exclusive perpetual, paid-up license to each of Fannie Mae and Freddie Mac to use the materials and intellectual property owned and licensed by CSS while each is a member of CSS. We are parties to the following agreements relating to the governance and operation of CSS and the common securitization platform.

- **Limited Liability Company Agreement.** Fannie Mae, Freddie Mac and CSS are parties to a limited liability company agreement that sets forth the overall framework for the joint venture, including Fannie Mae's and Freddie Mac's rights and responsibilities as members of CSS, the governance of CSS and the intellectual property rights of Fannie Mae, Freddie Mac and CSS in the common securitization platform. Fannie Mae and Freddie Mac each has a 50% financial ownership interest in CSS, and each company makes capital contributions of equal value to CSS to fund the entirety of CSS's operations. The agreement provides that FHFA has the decision-making role in CSS's governance while Fannie Mae and Freddie Mac are both in conservatorship or receivership, including: the right to approve specified significant matters such as budgets, business plans, capital contributions, and appointments, compensation and removal of CSS officers; and the authority to resolve any deadlocks.

  In January 2020 FHFA directed us and Freddie Mac to enter into an amended limited liability company agreement that affects our influence and governance rights over CSS even if we exit conservatorship. The amendment removed the requirement that any Board action must be approved by at least one manager from each GSE. The amendment also expanded the CSS Board of Managers from two managers designated by Fannie Mae and two managers designated by Freddie Mac to also include: (1) the CSS Chief Executive Officer; (2) a Board Chair not affiliated with either GSE or CSS (who was designated by FHFA in January 2020); and (3) up to three additional Board members not affiliated with either GSE or CSS. Board actions must be approved by a majority vote and, while we and Freddie Mac both remain in conservatorship, FHFA has the right to designate the additional Board members and the Board Chair, and no Board action may be taken without the affirmative vote of the Board Chair. The Board Chair, CSS CEO and three additional FHFA-designated Board members, if designated, will constitute a majority of the Board, in which case the four managers designated by Fannie Mae and Freddie Mac will constitute a minority of the Board and could be outvoted by non-GSE designated Board members on any matter during conservatorship and on a number of significant matters following either our or Freddie Mac's exit from conservatorship.

  Under the amended agreement, if either we or Freddie Mac exit conservatorship, approval by at least one manager designated by each GSE will be required for "material decisions," including the following:

  - material business changes such as adding a new business line or reducing support of UMBS;

  - capital contributions beyond those necessary to support CSS's ordinary business operations;
  - the designation or removal of the CSS CEO; and
  - the admission of new LLC members.

- **Customer Services Agreement.** Fannie Mae, Freddie Mac and CSS are parties to a customer services agreement that sets forth the terms under which CSS provides mortgage securitization services to us and Freddie Mac, including the operation of the common securitization platform. CSS uses the common securitization platform to perform data validation, issuance, at-issuance and ongoing disclosures, tax reporting and bond administration for Fannie Mae's single-family mortgage-backed securities. Fannie Mae and Freddie Mac do not pay service fees under the customer services agreement; CSS operations are funded entirely through capital contributions from Fannie Mae and Freddie Mac pursuant to the limited liability company agreement described above.
- **Administrative Services Agreement.** Each of Fannie Mae and Freddie Mac is party to a separate administrative services agreement with CSS that sets forth the support services each company provides to CSS. We provide procurement services to CSS. Freddie Mac provides tax-related services to CSS.

We discuss risks posed by our reliance on CSS in "Risk Factors—GSE and Conservatorship Risk."

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. Although the Treasury plan and FHFA's recently released strategic plan address ending the conservatorship, as we discuss below in "Housing Finance Reform," 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, the level of government support of our business, 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—GSE and Conservatorship Risk."

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 Legislation—Receivership" and "Risk Factors—GSE and Conservatorship Risks."

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 and again in September 2019 pursuant to letter agreements between us, through FHFA in its capacity as conservator, and Treasury. In the September 2019 letter agreement, we and Treasury also agreed to negotiate and execute an additional amendment to the senior preferred stock purchase agreement that further enhances taxpayer protections by adopting covenants broadly consistent with recommendations for administrative reform contained in the Treasury plan. In announcing the letter agreement, Treasury noted that subsequent amendments to the senior preferred stock purchase agreement may be appropriate to facilitate the implementation of any eventual recapitalization plan. See “Housing Finance Reform—Treasury Housing Reform Plan” for a discussion of potential approaches to recapitalization discussed in the Treasury plan.

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.

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

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.

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, the agreement provides that 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.

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.

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 governing 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 senior preferred stock purchase 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; and
- the September 2019 letter agreement provides that, beginning on September 30, 2019, and at the end of each fiscal quarter thereafter, the liquidation preference shall be increased by an amount equal to the increase in our net worth, if any, during the immediately prior fiscal quarter, until such time as the liquidation preference has increased by $22 billion pursuant to this provision.

Accordingly, the aggregate liquidation preference of the senior preferred stock was $131.2 billion as of December 31, 2019.

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. 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 dividend provisions of the senior preferred stock have been amended three times.

- *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 and September 2019 letter agreements.
- *December 2017 Amendment.* As amended in December 2017, the applicable capital reserve amount was increased to $3.0 billion. The December 2017 letter agreement also reduced by $2.4 billion the dividend amount otherwise payable for the fourth quarter of 2017.
- *September 2019 Amendment.* As amended in September 2019, the applicable capital reserve amount was increased to $25 billion effective for dividend periods beginning July 1, 2019. 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.

As a result of these amended dividend provisions, for each quarterly period beginning with the third quarter of 2019, 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 $25 billion. If our net worth does not exceed the applicable capital reserve amount of $25 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 billion as of December 31, 2018. In addition, FHFA has directed that we further cap our mortgage assets at $225 billion. For purposes of calculating our limit for 2019 and prior periods, 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, 2019 were $153.6 billion. For periods after 2019, at FHFA's direction our mortgage asset calculation will also include 10% of the notional value of interest-only securities we hold. We disclose the amount of our mortgage assets each month in the "Endnotes" to 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 for 2019 and each year thereafter is $300 billion. For purposes of this calculation, indebtedness is based on the par value of each applicable loan and does not reflect the impact of our consolidation of variable interest entities. Applying this measure, our indebtedness as of December 31, 2019 was $182.2 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 2019.

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 in that system. Below we discuss the administration's plan for housing finance reform, recent actions and statements by members of Congress on housing finance reform, and FHFA's strategic goals for the GSEs' conservatorships and its 2020 scorecard for the GSEs.

Treasury Housing Reform Plan

On September 5, 2019, Treasury released a plan recommending administrative and legislative reforms to the housing finance system. The Treasury plan is far-reaching in scope and could have a significant impact on our structure, our role in the secondary mortgage market, our capitalization, our business and our competitive environment. The Treasury plan includes 49 recommended reforms—31 proposed administrative reforms and 18 proposed legislative reforms—to define a limited role for the federal government in the housing finance system, enhance taxpayer protections against future bailouts, and promote competition in the housing finance system. The Treasury plan includes recommendations relating to ending our conservatorship, amending our senior preferred stock purchase agreement with Treasury, considering additional restrictions and requirements on our business, and many other matters. While the Treasury plan states that it is Treasury's preference and recommendation that Congress enact comprehensive housing finance reform legislation, the plan also states that "reform should not and need not wait on Congress. . . . Pending legislation, Treasury will continue to support FHFA's administrative actions to enhance regulation of the GSEs, promote private sector competition, and satisfy the preconditions set forth in this plan for ending the GSEs' conservatorships."

The Treasury plan contemplates FHFA ending the conservatorships of each of Fannie Mae and Freddie Mac when the GSE has met specified preconditions, which the plan recommends should include, at a minimum, that:

- FHFA has prescribed regulatory capital requirements for both GSEs. We expect FHFA to propose new capital requirements for the GSEs this year;
- FHFA has approved the GSE's capital restoration plan, and the GSE has retained or raised sufficient capital and other loss-absorbing capacity to operate in a safe and sound manner;
- the senior preferred stock purchase agreement between Treasury and the GSE has been amended to:
    - require the GSE to fully compensate the federal government in the form of an ongoing payment for the ongoing support provided to the GSE under the senior preferred stock purchase agreement;
    - focus the GSE's activities on its core statutory mission and otherwise tailor government support to the underlying rationale for that support;
    - further limit the size of the GSE's retained mortgage portfolio;
    - subject the GSE to heightened prudential requirements and safety and soundness standards, including increased capital requirements, designed to prevent a future taxpayer bailout and minimize risks to financial stability; and
    - ensure that the risk posed by the GSE's activities is calibrated to the amount of the remaining commitment under the senior preferred stock purchase agreement;
- appropriate provision has been made to ensure there is no disruption to the market for the GSE's MBS, including its previously-issued MBS;
- FHFA, after consulting with the Financial Stability Oversight Council, has determined that the heightened prudential requirements incorporated into the amended senior preferred stock purchase agreements are, together with the requirements and restrictions imposed by FHFA in its capacity as regulator, appropriate to minimize risks to financial stability; and

- any other conditions that FHFA, in its discretion, determines are necessary to ensure that the GSE would operate in a safe and sound manner after the conservatorship, including as to the GSE's compliance with FHFA's directives or other requirements and also as to the build out of FHFA's supervisory function.

The Treasury plan also contemplates Treasury and FHFA adjusting Fannie Mae's and Freddie Mac's senior preferred stock purchase agreements with Treasury to allow each company to retain and raise capital. The Treasury plan does not specify how Fannie Mae or Freddie Mac would recapitalize but states that potential approaches to recapitalization could include one or more of the following, among other options:

- eliminating all or a portion of the liquidation preference of Treasury's senior preferred stock or exchanging all or a portion of that interest for common stock or other interests in the GSE;
- adjusting the net worth sweep dividend on the senior preferred stock to allow the GSE to retain earnings in excess of the $3 billion capital reserve in effect when the Treasury plan was released, with appropriate compensation to Treasury for any deferred or forgone dividends. The net worth sweep dividend was amended in September 2019 to permit us to retain up to $25 billion in earnings;
- issuing shares of common or preferred stock, and perhaps also convertible debt or other loss-absorbing instruments, through private or public offerings, perhaps in connection with the exercise of Treasury's warrants for 79.9% of the GSE's common stock;
- negotiating exchange offers for one or more classes of the GSE's existing junior preferred stock; and
- placing the GSE in receivership to facilitate a restructuring of the capital structure.

The Treasury plan recommends that Treasury's commitment to provide funding under the senior preferred stock purchase agreement should be replaced with legislation that authorizes an explicit, paid-for guarantee backed by the full faith and credit of the Federal Government that is limited to the timely payment of principal and interest on qualifying MBS. The Treasury plan further recommends that, pending legislation, even after conservatorship Treasury should maintain its ongoing commitment to support each GSE's single-family and multifamily mortgage-backed securities through the senior preferred stock purchase agreements, as amended as contemplated by the plan.

The Treasury plan also recommends legislative changes that would limit our single-family activities and restrict our multifamily footprint. Pending any legislative changes, the Treasury plan recommends that FHFA "assess whether each of the current products, services, and other single-family activities of [Fannie Mae and Freddie Mac] is consistent with its statutory mission and should continue to benefit from support under" the senior preferred stock purchase agreement. It also recommends that FHFA and Treasury consider amendments to the senior preferred stock purchase agreement to ensure that multifamily lending activities are consistent with Fannie Mae's and Freddie Mac's "underlying affordability mission."

There continues to be significant uncertainty regarding the timing, content and impact of future legislative and regulatory actions affecting us, including the enactment of housing finance reform legislation and the implementation of all or any portion of the Treasury plan. See "Risk Factors—GSE and Conservatorship Risk" for a description of risks associated with our future and potential housing finance reform.

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. The House Committee on Financial Services in October 2019 released a draft bill that would, among other matters, prohibit Treasury from disposing of its senior preferred stock less than two years following enactment and would also prohibit FHFA from implementing any new policy, or changing an existing policy, with regard to the GSEs, without 30 days' prior notice to Congress. 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 Strategic Goals and 2020 Scorecard

In October 2019, FHFA released its 2019 Strategic Plan for the Conservatorships of Fannie Mae and Freddie Mac (the "2019 strategic plan"), along with its 2020 Scorecard for Fannie Mae, Freddie Mac, and Common Securitization Solutions (the "2020 scorecard"), which is a set of corporate performance objectives that define our key priorities for 2020 and align with the 2019 strategic plan. According to the plan, "[FHFA's] end-state vision is for the [GSEs] to return to operating as fully-private companies within a competitive, liquid, efficient, and resilient housing finance system, while a strengthened and independent FHFA ensures they have the capital reserves, risk management capabilities, corporate governance, and regulatory oversight that are appropriate for their size, risk, and systemic importance outside of conservatorship." FHFA indicated that implementing the 2019 strategic plan and 2020 scorecard, combined with the framework for reform put forward in the Treasury plan, will "reduce the role of government in the mortgage market, protect taxpayers, support sustainable homeownership and affordable rental housing, and foster a mortgage finance market that is stable and liquid through the cycle."

The new strategic plan, which replaces FHFA's 2014 strategic plan, and the 2020 scorecard identify three broad objectives to ensure that Fannie Mae and Freddie Mac:

1. Focus on their core mission responsibilities to foster competitive, liquid, efficient, and resilient ("CLEAR") national housing finance markets that support sustainable homeownership and affordable rental housing;
2. Operate in a safe and sound manner appropriate for entities in conservatorship; and
3. Prepare for their eventual exits from conservatorship.

See "Risk Factors" for a description of the risks associated with our uncertain future and potential housing finance reform. For information on the objectives in the 2020 scorecard, see our Current Report on Form 8-K filed with the Securities and Exchange Commission (''SEC'') on October 29, 2019.

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 2019, the conforming loan limit for mortgages secured by one-family residences was set at $484,350, 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 2020, FHFA increased the national conforming loan limit for one-family residences to $510,400. 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 Legislation

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.

We describe below regulations applicable to us pursuant to the GSE Act and other legislation. 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.

Conservatorship Capital Framework

In 2017, FHFA directed Fannie Mae and Freddie Mac to implement an aligned risk measurement framework for evaluating 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.

Expected Re-Proposal on Capital Requirements

We expect FHFA, in its capacity as our regulator, to propose new capital requirements for the GSEs this year. In June 2018, FHFA proposed capital requirements for Fannie Mae and Freddie Mac, which would 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 in 2018. On November 19, 2019, FHFA announced plans to re-propose the entire regulation on capital requirements sometime in 2020.

We continuously review our business decisions as they relate to existing and prospective capital framework standards. Any final capital rule would have a significant impact on our business and profitability outside of conservatorship.

Stress Testing

The Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) requires certain financial companies to conduct annual stress tests to determine whether the companies have the capital necessary to absorb losses as a result of adverse economic conditions. Under FHFA regulations implementing this requirement, each year we are required to conduct a stress test using three different scenarios of financial conditions provided by FHFA: baseline, adverse and severely adverse. In conducting the stress test, we are required to calculate the impact of the scenario conditions on our capital levels and other specified measures of financial condition and performance over a period of at least nine quarters. In December 2019, FHFA proposed revising the stress testing requirements to eliminate the adverse scenario from the list of required scenarios. We published our most recent stress test results for the severely adverse scenario on our website in August 2019.

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 new strategic plan.

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 new business purchases and to pay this amount to specified HUD and Treasury funds in support of affordable housing. 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, which we describe in "Mortgage Securitizations." We are prohibited from passing through the cost of these allocations to the originators of the mortgage loans that we purchase or securitize. For each year's new business purchases since 2015, we have set aside amounts for these contributions and transferred the funds when directed by FHFA to do so. See "Certain Relationships and Related Transactions, and Director Independence—Transactions with Related Persons—Treasury Interest in Affordable Housing Allocations" for information on our contribution for 2019 new business purchases.

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 a description of our executive compensation program and legal and regulatory requirements that affect 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, legislative and conservatorship requirements:

- FHFA, in its capacity as conservator, has 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.
- In 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.
- 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 in early 2012. While the TCCA provides that its fee requirement expires on October 1, 2021, FHFA directed us to apply the fee increase for an additional quarter, to loans acquired through December 31, 2021. 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.

FHFA Rule on Uniform Mortgage-Backed Securities

We and Freddie Mac are required to align our programs, policies and practices that affect the prepayment rates of TBA-eligible MBS pursuant to an FHFA rule that became effective in May 2019. The rule, which codified alignment mandates that FHFA implemented as conservator, 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 and will remain aligned regardless of whether we and Freddie Mac are in conservatorship. The rule provides a non-exhaustive list of covered programs, policies and practices, including management decisions or actions about: single-family guaranty fees; the spread between the note rate on the mortgage and the pass-through coupon on the MBS; eligibility standards for sellers, servicers, and private mortgage insurers; distressed loan servicing requirements; removal of mortgage loans from securities; servicer compensation; and proposals that could materially change the credit risk profile of the single-family mortgages securitized by a GSE.

Prior to the first issuances of UMBS in June 2019, we, Freddie Mac and FHFA undertook alignment efforts with the goal of ensuring consistency of prepayment speeds between Fannie Mae-issued and Freddie Mac-issued securities. In response to this rule, we also created a process aimed at ensuring any changes to our programs, policies and practices do not have a material effect on cash flows. Accordingly, we believe that our policies and practices are generally aligned with the requirements specified by FHFA pursuant to the rule. To ensure reasonably consistent cash flows and the continued fungibility of UMBS, in November 2019, FHFA solicited public input through January 21, 2020, to help it determine whether further alignment is necessary, and whether having more aligned pooling practices could facilitate the issuance of UMBS by market participants beyond Fannie Mae and Freddie Mac. While it is uncertain what further alignment would be required under any such FHFA initiative, FHFA's request for input focused on possibilities such as the formation of larger multi-lender MBS pools and further alignment of refinance policies and oversight.

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 standards 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 2019, FHFA determined that we met all of our 2018 single-family and multifamily housing goals. We believe we also met all of our 2019 single-family and multifamily housing goals. We will report our 2019 housing goals performance to FHFA in March 2020, and FHFA will make a final determination regarding our 2019 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, becomes available. The tables below display our housing goals for 2018 and 2019, as well as our 2018 performance against our goals.

Single-Family Housing Goals[1]

	2018			2019
	FHFA Benchmark	Single-Family Market Level	Result	FHFA Benchmark
Low-income (≤80% of area median income) families home purchases	24 %	25.5 %	28.2 %	24 %
Very low-income (≤50% of area median income) families home purchases	6	6.5	6.7	6
Low-income areas home purchases[2]	18	22.6	25.1	19
Low-income and high-minority areas home purchases[3]	14	18.0	20.1	14
Low-income families refinances	21	30.7	31.2	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

	2018		2019
	Goal	Result	Goal
		(in units)	
Low-income families	315,000	421,813	315,000
Very low-income families	60,000	80,891	60,000
Small affordable multifamily properties[1]	10,000	11,890	10,000

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

As described in "Risk Factors—GSE and Conservatorship Risk," 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 underserved markets plans, which are effective for 2018 to 2020, received non-objections from FHFA, were initially finalized and published in December 2017 and have been updated since that time.

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.

FHFA adopted revised final evaluation guidance in December 2019. 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, with performance results to 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. In October 2019, FHFA reported its determination that we complied with our 2018 duty to serve requirements and its finding that we performed a satisfactory job of increasing the liquidity and distribution of available capital in each of the three underserved markets. We believe we also complied with all of our 2019 duty to serve obligations; however, FHFA will make the final determination.

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. The first phase of the rule became effective in 2017, and 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 sponsors of securitization transactions to retain a 5% economic interest in the credit risk of the securitized assets. 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 Rule and the Qualified Mortgage Patch

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 created the qualified mortgage "patch," pursuant to which a special class of conventional mortgage loans are considered 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. The qualified mortgage patch is scheduled to expire on the earlier of January 10, 2021 or when Fannie Mae and Freddie Mac cease to be in conservatorship or receivership. In 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 July 2019, the CFPB issued an advance notice of proposed rulemaking seeking information relating to the expiration of the qualified mortgage patch. The CFPB's notice stated that it planned to allow the qualified mortgage patch to expire in January 2021 or after a short extension, if necessary, to facilitate a smooth and orderly transition away from the qualified mortgage patch. The CFPB's notice requested comments on possible amendments to the ability-to-repay rule, including whether to revise Regulation Z's definition of a qualified mortgage in light of the qualified mortgage patch's scheduled expiration. In January 2020, the CFPB indicated that it plans to release a notice of proposed rulemaking in the spring of 2020 that will include a plan to extend the patch for a short period until the effective date of a new rule or until one or more of the GSEs exits conservatorship. The Treasury plan, which was issued in September 2019, contains a recommendation that the CFPB replace

the qualified mortgage patch with a bright-line safe harbor. Although the obligation to make a good faith determination about a consumer's ability to repay 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. Changes in this rule will affect, perhaps materially, the volume of loans available for delivery to us, and the competition we face for the acquisition and guaranty of mortgage assets. See "Risk Factors—GSE and Conservatorship Risk" and "—Legal, Regulatory and Other Risks" for more information on the uncertainty of our exit from conservatorship and the risks presented by regulatory changes in the financial services industry.

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 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 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.

FHFA Rule on Credit Score Models

In August 2019, FHFA published a final rule on the validation and approval of credit score models, which became effective in October 2019. The final rule establishes standards and criteria, and outlines a four-phase process by which we and Freddie Mac should validate and approve third-party credit score models. The credit score models will be evaluated for factors such as accuracy, reliability and integrity, as well as impacts on fair lending and the mortgage industry. Once our evaluation is complete, we must submit the proposed third-party credit score models to FHFA for a final decision. The final rule does not address the time frame for industry adoption and implementation of the new credit score models. Currently, we use the "classic FICO® Score" from Fair Isaac Corporation to establish a minimum credit threshold for mortgage lending, provide a foundation for risk-based pricing, and support disclosures to investors. Fair Isaac Corporation, as well as other credit score model developers, may submit applications under this new process.

Single-Counterparty Credit Limit

The Federal Reserve Board has adopted rules to restrict the counterparty credit exposures of U.S.-based global systemically important banks ("U.S. GSIBs") and certain large bank holding companies, large savings and loan holding companies, and U.S. intermediate holding companies that are subsidiaries of foreign banking organizations. These rules, which have various implementation dates depending on the type of covered organization, generally limit the exposure of a covered organization to any counterparty and its affiliates to no more than 25% of the covered organization's tier 1 capital. U.S. GSIBs must adhere to a stricter limit of 15% of their tier 1 capital for exposures to any other U.S. GSIB or non-bank entity supervised by the Federal Reserve.

While Fannie Mae is in conservatorship, a covered organization's 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, these rules 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.

In the discussion of a recent amendment to these rules, the Federal Reserve Board noted that a change in the conservatorship status of the GSEs could affect aspects of the Federal Reserve Board's regulatory framework, and that it "will continue to monitor and take into consideration any future changes to the conservatorship status of the GSEs, including the extent and type of support received by the GSEs."

The Future of LIBOR and Alternative Reference Rates

In 2017, the United Kingdom's Financial Conduct Authority, which regulates the London Inter-bank Offered Rate ("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. We have exposure to LIBOR, including in financial instruments that mature after 2021. Our exposure arises from our acquisitions of loans and securities, our sales of securities, and our entry into derivative transactions that reference LIBOR. The markets for alternative reference rates are developing and, as they develop, we expect to transition to these alternative reference rates. The transition from LIBOR will require action by many market participants and leadership from organizations such as Alternative Reference Rates Committee (the "ARRC") member firms, FHFA, our advisors and regulators. We are actively seeking to facilitate an orderly transition from LIBOR. We have created an enterprise program office focused on:

- identifying and monitoring our exposure to LIBOR now and after 2021;

- updating our infrastructure (including models and systems) to prepare for the transition;
- developing key milestones and timelines for the adoption of alternative reference rates for new acquisitions of loans and securities, and for new securities issuances;
- monitoring the market adoption of alternative reference rates and industry-standard contractual fallback provisions; and
- participating in industry working groups.

These efforts are overseen by our LIBOR Enterprise Steering Council, which includes members of senior management. We also coordinate with FHFA on our LIBOR transition efforts. As part of these efforts, we have sought to identify the risks inherent in this transition and engaged external business and legal consultants focused on LIBOR and alternative indices. We continue to analyze potential risks associated with the LIBOR transition, including financial, operational, legal, reputational and compliance risks.

In addition to the work we are doing on an enterprise level to facilitate an orderly transition from LIBOR, we also are a voting member of the ARRC and participate in its working groups. The ARRC is a group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York to identify a set of alternative U.S. dollar reference interest rates and an adoption plan for those alternative rates. Banking and financial regulators, including FHFA, also participate in the ARRC as ex-officio members. In 2017, the ARRC recommended an alternative reference rate, referred to as the Secured Overnight Financing Rate ("SOFR"). The Federal Reserve Bank of New York began publishing SOFR in 2018. In support of the ARRC's efforts to develop SOFR as a key market index, we issued the market's first SOFR securities in 2018 and to date we have issued a total of $21.5 billion in SOFR-indexed floating-rate corporate debt. We also have entered into SOFR-indexed interest rate swaps and futures transactions to further support the development of this emerging index.

As part of its continued effort to develop plans to transition to SOFR as the new market benchmark, in July 2019, the ARRC published a white paper that provides a framework for the use of SOFR for newly originated consumer residential adjustable-rate mortgage products. We support the framework and intend to create a SOFR-indexed adjustable-rate mortgage product for new originations after systems and processes have been put in place to accommodate the new index. We expect to communicate later this year final details on SOFR adjustable-rate mortgage loans and the timeline for when lenders can begin originating and delivering those loans to us. In connection with this transition, we announced on February 5, 2020, that we will cease purchasing LIBOR adjustable-rate mortgage loans by the end of 2020.

Currently, our LIBOR-indexed derivative contracts represent a substantial portion of our LIBOR exposure. We anticipate that the International Swaps and Derivatives Association will implement amendments and protocols this year for derivatives contracts aimed at an orderly transition to SOFR upon any LIBOR cessation. Industry adoption of these amendments and protocols should mitigate risks associated with a cessation of LIBOR. Another principal source of our exposure to LIBOR arises from (1) single-family and multifamily LIBOR-based adjustable-rate mortgage loans that we have securitized or own and (2) LIBOR-indexed REMIC structured securities that we have issued. The majority of these products allow us to select a replacement index if LIBOR ceases to be published. We have implemented or are in the process of implementing fallback language based on the recommendations of the ARRC for new issuances of these products.

At this time, we are unable to predict whether or when LIBOR will cease to be available or if SOFR will become the most prevalent benchmark to replace LIBOR. Given the historical importance of LIBOR for financial instruments, developments regarding LIBOR and alternative reference rates 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 discontinuance of LIBOR.

Employees

As of January 31, 2020, we employed approximately 7,500 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," "should," "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:

- factors that will affect our future net worth;
- our future profitability, financial condition and results of operations, and the factors that will affect them;
- factors that will affect our long-term financial performance;
- trends, expectations for, and the impact of fluctuations in our acquisition volumes, market share, guaranty fees, or acquisition credit characteristics;
- our business plans and strategies and the impact of such plans and strategies;
- continued consideration of housing finance reform by the Administration, FHFA and Congress, including the recommended administrative and legislative reforms in the Treasury plan, efforts and plans to implement such reforms; and the impact of housing finance reform on our conservatorship, our structure, our role in the secondary mortgage market, our capitalization, our business and our competitive environment;
- our dividend payments to Treasury and the liquidation preference of the senior preferred stock;
- volatility in our future financial results and efforts we may make to address volatility, including our work to implement hedge accounting;
- the size or composition of our retained mortgage portfolio;
- the impact of legislation and regulation on our business or financial results;
- our payments to HUD and Treasury funds under the GSE Act;
- our plans relating to and the effects of our credit risk transfer transactions;
- factors that could affect or mitigate our credit risk exposure;
- our future guaranty fees;
- our future capital requirements;
- mortgage market and economic conditions (including home price appreciation rates and the future volume of and characteristics of mortgage originations) and the impact of such conditions on our business or financial results;
- the effects on our business, risk profile and financial condition of our issuance of UMBS and of structured securities backed by Freddie Mac-issued UMBS, including the level and impact of our credit and operational risk exposure to Freddie Mac;
- the TCCA fees we pay in the future;
- the risks to our business;
- 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, the credit risk profile of such acquisitions, and the factors that will affect them;

- 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. Forward-looking statements are not guarantees of future performance. By their nature, forward-looking statements are subject to significant risks and uncertainties and changes in circumstances. 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 and our exit from conservatorship;
- the market and regulatory changes we anticipate and our readiness for them, including changes relating to eventual exit from conservatorship, the competitive landscape, and the need to attract private investment;
- future legislative and regulatory requirements or changes affecting us, such as the enactment of housing finance reform legislation (including all or any portion of the Treasury plan), including changes that limit our business activities or our footprint;
- actions by FHFA, Treasury, HUD, the CFPB or other regulators, or Congress, that affect our business, including new capital requirements that become applicable to us or changes in the ability-to-repay rule to replace the qualified mortgage patch for GSE-eligible loans;
- 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;
- developments that may be difficult to predict, including market conditions that result in changes in our net amortization income from our guaranty book of business, fluctuations in the estimated fair value of our derivatives and other financial instruments that we mark to market through our earnings, developments that affect our loss reserves such as changes in interest rates, home prices or accounting standards, or events such as natural disasters;
- uncertainties relating to the discontinuance of LIBOR, or other market changes that could impact the loans we own or guarantee or our MBS;
- credit availability;
- disruptions or instability in the housing and credit markets;
- the size and our share of the U.S. mortgage market and the factors that affect them, including population growth and household formation;
- 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 and our competitors' 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, quality and performance of our guaranty book of business and retained mortgage portfolio;
- the competitive environment in which we operate, including the impact of legislative, regulatory or other developments on levels of competition in our industry and other factors affecting our market share;
- how long loans in our guaranty book of business remain outstanding;
- 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;
- our conservatorship, including any changes to or termination (by receivership or otherwise) of the conservatorship and its effect on our business;
- the investment by Treasury, including potential changes to the terms of the senior preferred stock purchase agreement or senior preferred stock, and its effect on our business, including restrictions imposed on us by the terms of the senior preferred stock purchase agreement, the senior preferred stock, and Treasury's warrant, as well as the

possibility that these or other restrictions on our business and activities may be applied to us through other mechanisms even if we cease to be subject to these agreements and instruments;

- 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 actions relating to UMBS or our resecuritization of Freddie Mac-issued securities;
- 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;
- the possibility that future changes in leadership at FHFA or the Administration may result in changes in FHFA's or Treasury's willingness to pursue the administrative reform recommendations in the Treasury plan;
- our reliance on CSS and the common securitization platform for a majority of our single-family securitization activities, our reduced influence over CSS as a result of recent changes to the CSS limited liability company agreement, and any additional changes FHFA may require in our relationship with, or support of, CSS;
- 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;
- actions we take to mitigate losses, and 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 CSS, our other counterparties and other third parties;
- the impact of increasing interdependence between the single-family mortgage securitization programs of Fannie Mae and Freddie Mac in connection with UMBS;
- 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. We face additional 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.

The company faces an uncertain future, including how long we will continue to exist in our current form, the extent of our role in the market, the level of government support of our business, how long we will be in conservatorship, what form we will have, 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.

On September 5, 2019, Treasury released its plan to reform the housing finance system. The Treasury plan, which is described in "Business—Conservatorship, Treasury Agreements and Housing Finance Reform," is far-reaching in scope and could have a significant impact on our structure, our role in the secondary mortgage market, our capitalization, our business and our competitive environment. For example:

- Some of the recommendations in the Treasury plan, if implemented, could affect the credit risk of our mortgage acquisitions, affect our pricing, affect the market for our securities, impose additional requirements on our business, increase our costs or have other impacts that could negatively impact our ability to compete or otherwise negatively affect our financial results and condition.
- The Treasury plan recommends legislative changes that would limit our single-family activities and restrict our multifamily footprint.
- Pending any legislative changes, the Treasury plan recommends that FHFA "assess whether each of the current products, services, and other single-family activities of [Fannie Mae and Freddie Mac] is consistent with its statutory mission and should continue to benefit from support under" the senior preferred stock purchase agreement. It also recommends that FHFA and Treasury consider amendments to the senior preferred stock purchase agreement to ensure that multifamily lending activities are consistent with Fannie Mae's and Freddie Mac's "underlying affordability mission."
- Regulatory capital requirements that become applicable to us as contemplated by the Treasury plan, depending on their terms, may require us to change or limit certain business activities. For example, if the final capital rule requires us to hold more capital than FHFA's currently proposed capital framework, we may be required to take actions to maintain appropriate risk-adjusted returns, which could adversely affect our competitive position. Depending on how the requirements are structured, this effect may be more pronounced in a stressed economic environment.
- The Treasury plan indicates one potential approach to recapitalizing us would be to place us in receivership to facilitate a restructuring of our capital structure. In the event of such a receivership, existing holders of our preferred and common stock would have no further ownership interest in us.

In addition to or in connection with the recommendations set forth in the Treasury plan, Congress, FHFA or other agencies may consider legislation, regulation or administrative actions to increase the competition we face, reduce our market share, expand our obligations to provide funds to Treasury, constrain our business operations, or subject us to other obligations that may adversely affect our business. We cannot predict the timing or final content of housing finance reform legislation or other legislation, regulations or administrative actions related to our activities, nor can we predict the impact any such enacted legislation, regulations or administrative actions would have on our business and financial condition.

Our exit from conservatorship is uncertain.

While the Treasury plan contemplates FHFA potentially ending our conservatorship, the preconditions to prepare for an exit are significant. A number of factors may keep us from meeting the preconditions for exiting conservatorship, otherwise prevent our exiting conservatorship, or delay any exit from conservatorship as contemplated under the plan, including the following:

- we may be unable to retain or raise sufficient capital;
- we may be unable to meet additional requirements FHFA determines are necessary for us to operate in a safe and sound manner;
- possible future changes in leadership at FHFA or the Administration may result in changes in FHFA's or Treasury's willingness to pursue the administrative reform recommendations in the Treasury plan;
- legislation may pass that prevents the Treasury plan from being implemented;
- the need to address operational challenges to exiting conservatorship, including challenges arising from the interdependence between us and Freddie Mac in connection with UMBS and our resecuritization of each other's securities; or

- the potential loss of regulatory exemptions or protections resulting from exiting conservatorship, including the qualified mortgage patch and exemptions under the Dodd-Frank risk retention and single-counterparty credit limit rules.

Our business activities are significantly affected by the conservatorship and the senior preferred stock purchase agreement and could be significantly impacted by Treasury's Housing Reform Plan.

We are currently under the control of our conservator, FHFA, and we do not know whether, when or how the conservatorship will terminate. In conservatorship our business is not managed with a strategy to maximize shareholder returns while fulfilling our mission. 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.

As conservator, FHFA may prevent us from engaging in business activities or transactions that we believe would benefit our business and financial results. For example, under FHFA's 2020 scorecard, one of our performance objectives this year is to review the risk profile of all of our business activities and reduce risk and complexity to levels determined to be "more appropriate" in light of our conservatorship status and limited capital cushion. FHFA has advised us that it expects us to make changes in our business activities as a result of this review. At this time, we do not know what changes will be required, but it is possible we may be required to cease engaging in some activities that are profitable and currently within our risk appetite.

We use loan-level price adjustments to price for the credit risk we assume in providing our guaranty. FHFA must approve changes to the national loan-level price adjustments we charge and can direct us to make other changes to our single-family guaranty fee pricing. We also must submit any proposed changes to our single-family automated underwriting system, Desktop Underwriter® ("DU®"), to FHFA for approval. DU provides a comprehensive risk assessment of a borrower's loan application and is used to evaluate a majority of the single-family loans we acquire. We regularly review DU's underlying risk assessment models and recalibrate them to improve DU's ability to analyze risk and avoid excessive risk layering. These restrictions could decrease our guaranty fee revenues in future periods, decrease our single-family business volume or negatively impact the credit risk profile of our new single-family acquisitions.

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, which are described in "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements—Covenants under Treasury Agreements."

In addition, the September 2019 letter agreement with Treasury contemplates amending the senior preferred stock purchase agreement to adopt covenants broadly consistent with the Treasury plan's recommendations to impose additional restrictions on our business activities. Limitations on our business activities could restrict our potential sources of revenue, impose additional costs on us, negatively impact our ability to compete, or otherwise negatively affect our business, results and financial condition.

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 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 is 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 while under conservatorship. For example:

- The Equity in Government Compensation Act of 2015 limits the annual direct compensation for our Chief Executive Officer to $600,000 in base salary while we are in conservatorship or receivership.
- The Stop Trading on Congressional Knowledge Act of 2012, known as the STOCK Act, and related FHFA regulations prohibit our senior executives from receiving bonuses during conservatorship.
- In April 2019, legislation was introduced in the U.S. Senate that would prohibit either Fannie Mae or Freddie Mac from transferring or delegating any duty or responsibility, as of November 25, 2015, of its chief executive officer to any other position. The legislation would also provide that the Director of FHFA may be removed for cause for approving the compensation of any chief executive officer of Fannie Mae or Freddie Mac at a level greater than that permitted under the Equity in Government Compensation Act of 2015.
- As our conservator, FHFA has the authority to approve the terms and amount of our executive compensation, and may require us to make changes to our executive compensation program. For example:
    - In August 2019, FHFA directed us, for so long as we are in conservatorship, to:
        - increase the mandatory deferral period for at-risk deferred salary received by senior vice presidents and above from one year to two years, effective January 1, 2022 for executives hired before January 1, 2020 and effective January 1, 2020 for executives hired or promoted to senior vice president on or after January 1, 2020; and
        - limit base salaries for all employees to no more than $600,000.
    - In September 2019, FHFA directed us to submit for conservator decision any compensation arrangement for a newly hired employee where the proposed total target direct compensation is $600,000 or above, or any increase in total target direct compensation for an existing employee where the proposed total target direct compensation is $600,000 or above. This directive continues for so long as we are in conservatorship.
- The terms of our senior preferred stock purchase agreement with Treasury contain specified restrictions relating to compensation, including a prohibition on selling or issuing equity securities without Treasury's prior written consent, which effectively eliminates our ability to offer equity-based compensation to our employees.

As a result of the restrictions on our compensation practices, 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 action by Congress or the Administration with respect to housing finance reform, which may result in the wind-down or significant restructuring 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 retention and succession planning for this position difficult. We believe the limit applicable to our chief executive officer compensation negatively affected our ability to retain our former Chief Executive Officer, who left the company in October 2018.

We face competition from the financial services and technology industries, and from businesses outside of these industries, 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.

Pursuing our housing goals and duty to serve obligations may adversely affect our business, results of operations and financial condition

We are required by the GSE Act to support the housing market in ways that could adversely affect our financial results and condition. For example, we are subject to housing goals that require a portion of the mortgage loans we acquire to 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. We also have a duty to serve very low-, low- and moderate-income families in three underserved markets: manufactured housing, affordable housing preservation and rural areas. 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 or 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 Legislation" 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 directly increase the liquidation preference of Treasury's senior preferred stock and, once they exceed our capital reserve amount, will be payable to Treasury as dividends. The senior preferred stock ranks senior 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 $131.2 billion as of December 31, 2019. Currently, the liquidation preference of the senior preferred stock increases at the end of each quarter by an amount equal to the increase in our net worth, if any, during the immediately prior fiscal quarter, until the liquidation preference has increased by $22 billion pursuant to this provision. The liquidation preference would increase further if we draw on Treasury's funding commitment 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.

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 $25 billion capital reserve amount. If we do not declare and pay the dividend amount in full for any dividend period for which dividends are payable, the applicable capital reserve amount will thereafter be zero.

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.

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.

We are not managed for the benefit of shareholders. Because we are in conservatorship, we are not 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 liquidity and market value of our MBS could be adversely affected by developments in the UMBS market, including those connected with our or Freddie Mac's exit from conservatorship.

In June 2019, we and Freddie Mac began issuing UMBS. The issuance of UMBS represents significant changes for the mortgage market and for our securitization operations and business. The success of UMBS is largely predicated on the fungibility of UMBS issued by Fannie Mae and Freddie Mac. If investors stop viewing Fannie Mae-issued UMBS and Freddie Mac-issued UMBS as fungible, or if investors prefer Freddie Mac-issued UMBS over Fannie Mae-issued UMBS, it could adversely affect the liquidity and market value of Fannie Mae MBS, the volume of our UMBS issuances and our guaranty fee revenues. FHFA adopted a rule to align Fannie Mae and Freddie Mac programs, policies and practices that affect the prepayment rates of TBA-eligible mortgage-backed securities to support the fungibility of Fannie Mae-issued UMBS and Freddie Mac-issued UMBS. However, these alignment efforts may not be successful over the long term and the prepayment rates on Fannie Mae-issued UMBS and Freddie Mac-issued UMBS could diverge in a manner that is disadvantageous for us.

The continued support of FHFA, Treasury, the Securities Industry and Financial Markets Association, and certain other regulatory bodies is critical to the success of the Single Security Initiative. If any of these entities were to cease its support, the liquidity and market value of Fannie Mae-issued UMBS could be adversely affected. Furthermore, if either we or Freddie Mac exits conservatorship, it is unclear whether our and Freddie Mac's programs, policies and practices in support of UMBS and resecuritizations of each other's securities would be sustained.

Our issuance of UMBS and structured securities backed by Freddie Mac-issued securities has increased our operational and counterparty credit risk.

Issuing UMBS has increased our operational and counterparty credit risk exposure to Freddie Mac. When we resecuritize Freddie Mac-issued UMBS or other Freddie Mac securities, our guaranty of principal and interest extends to the underlying Freddie Mac security. We expect this risk exposure to increase as we issue more structured securities backed directly or indirectly by Freddie Mac-issued securities going forward. Although we have an indemnification agreement with Freddie Mac, in the event Freddie Mac were to fail (for credit or operational reasons) to make a payment due on its securities underlying a Fannie Mae-issued structured security, we would be obligated under our guaranty to fund any shortfall and make the entire payment on the related Fannie Mae-issued structured security on that payment date. Our pricing does not currently reflect any incremental credit, liquidity or operational risk associated with our guaranty of resecuritized Freddie Mac securities. As a result, a failure by Freddie Mac to meet its obligations under the terms of its securities that back structured securities we issue could have a material adverse effect on our earnings and financial condition, and 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.

The implementation of the Single Security Initiative created significant interdependence between the single-family mortgage securitization programs of Fannie Mae and Freddie Mac. Accordingly, the market value of single-family Fannie Mae MBS could be affected by financial and operational incidents relating to Freddie Mac, even if those incidents do not directly relate to Fannie Mae or Fannie Mae MBS. Similarly, any disruption in Freddie Mac's securitization activities or any adverse events affecting Freddie Mac's significant mortgage sellers and servicers also could adversely affect the market value of single-family Fannie Mae MBS.

Our reliance on CSS and the common securitization platform has increased our counterparty and third-party risk.

We began using the common securitization platform operated by CSS to perform certain aspects of the securitization process for our single-family Fannie Mae MBS issuances in May 2019. We also use the common securitization platform for certain ongoing administrative functions for our previously issued and outstanding single-family Fannie Mae MBS. As a result, we no longer use our individual proprietary securitization function for our single-family MBS issuances. Accordingly, we are reliant on the common securitization platform and CSS for the operation of a majority of our single-family securitization activities.

In January 2020, at FHFA's direction we entered into an amended limited liability company agreement for CSS. The amendment reduces our and Freddie Mac's ability to control CSS Board decisions, even after conservatorship, including decisions about strategy, business operations and funding. The amendment expanded the CSS Board of Managers from two members designated by each GSE to include (1) the CSS Chief Executive Officer; (2) a Board Chair not affiliated with either GSE or CSS (who was designated by FHFA in January 2020); and (3) up to three independent Board members not affiliated with either GSE or CSS who, along with the Board Chair and the Chief Executive Officer of CSS, may continue to serve on the CSS Board after an exit from conservatorship. Board actions must be approved by a majority vote and, while we and Freddie Mac both remain in conservatorship, FHFA has the right to designate the additional Board members and the Board Chair, and no Board action may be taken without the affirmative vote of the Board Chair. The Board Chair, CSS CEO and three additional FHFA-designated Board members, if designated, will constitute a majority of the Board, in which case the four managers designated by Fannie Mae and Freddie Mac will constitute a minority of the Board and could be outvoted by non-GSE designated Board members on any matter during conservatorship and on a number of significant matters following either our or Freddie Mac's exit from conservatorship. Although the amended agreement would require our approval for certain "material decisions" if either we or Freddie Mac have exited conservatorship, the Board may approve a number of actions even after conservatorship over the objection of the managers we and Freddie Mac designate, including: approval of the annual budget and strategic plan for CSS (so long as it does not involve a material business change); withdrawal of capital by a member; and requiring capital contributions necessary to support CSS's ordinary business operations. We are still evaluating how these

changes to the CSS governance structure will affect us, and it is possible that FHFA may require us to make additional changes to the CSS limited liability company agreement, or may otherwise impose restrictions or provisions relating to CSS or UMBS, that may adversely affect us.

We do not currently pay service fees to CSS under our customer services agreement; its operations are funded entirely through capital contributions from Fannie Mae and Freddie Mac pursuant to the limited liability company agreement described above. We expect this arrangement may change, but we do not know how the eventual arrangement will be structured, or what control we will have in establishing those fees. During conservatorship, FHFA can direct us to enter into an amendment of the customer services agreement or enter such an amendment on our behalf, that could provide for a fee structure that would survive an exit from conservatorship absent a further amendment to the customer services agreement, which a majority of the Board would have to approve. Further, following either our or Freddie Mac's exit from conservatorship, a majority of the Board can determine how the annual operations of CSS are funded. Although implementation of any fee changes could require a further amendment to the customer services agreement, we might not have significant leverage to negotiate that amendment and the associated fee changes given our dependence on CSS.

Our securitization activities are complex and present significant operational and technological challenges and risks. Any measures we take to mitigate these challenges and risks might not be sufficient to prevent a disruption to our securitization activities. Our business activities could be adversely affected and the market for single-family Fannie Mae MBS could be disrupted if the common securitization platform 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 single-family MBS. In addition, a failure by CSS to maintain effective controls and procedures could result in material errors in our reported results or disclosures that are not complete or accurate.

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. 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 U.S. housing market can therefore have a significant adverse effect on our business that we cannot mitigate through diversification.

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.

We may not have sufficient capital reserves to avoid a net worth deficit if we experience comprehensive losses in the future. 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 recently amended dividend provisions of the senior preferred stock permit us to retain only up to $25 billion as capital reserves, provided our conservator directs us to declare and pay senior preferred stock dividends that become payable in the future. As of December 31, 2019, our net worth was $14.6 billion. As a result, we may not have sufficient capital reserves to avoid a net worth deficit if we have comprehensive losses in the future.

For any quarter for which we have a net worth deficit, we would need 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.

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 $3.4 trillion guaranty 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 significantly higher credit losses and credit-related expenses. Although we strengthened our underwriting and eligibility standards over the last decade, we continue to have loans in our book of business that were originated prior to the financial market crisis of 2008. 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, we may not be able to obtain as much protection from our credit enhancements as we would like to obtain, 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, 12.5 or 20 years), after which they provide limited or no further credit protection on the covered loans.
- Generally, our credit risk transfer transactions do not cover losses from principal forgiveness.
- 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.
- In the event of a sufficiently severe economic downturn, we may not be able to enter into new back-end credit risk transfer transactions for our recent acquisitions on economically advantageous terms.
- 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 or flood insurance we require. A property damaged by a flood that was outside a Federal Emergency Management Agency (“FEMA”)-designated Special 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 and reinsurers, including those that participate in our CIRT transactions, 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 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. We also have counterparty exposure to custodial depository institutions; mortgage originators, investors and dealers; debt security dealers; and document custodians.

We routinely enter into a high volume of transactions with counterparties in the financial services industry, including brokers and dealers, mortgage lenders and commercial banks, and mortgage insurers, resulting in a significant credit concentration with respect to this industry. We 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 on 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 fully satisfy their financial obligations or to properly 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 and they must meet risk-based asset requirements, 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 74.5% of claims under its mortgage insurance policies in cash and is deferring the remaining 25.5%, 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 $3.3 billion, or 2%, of our risk in force mortgage insurance coverage of our single-family guaranty book of business as of December 31, 2019.

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.

We may suffer losses if borrowers are unable to obtain property or flood insurance, if their claims under insurance policies are not paid, or if they suffer property damage as a result of a hazard for which we do not require insurance.

In general, we require borrowers to obtain property insurance to cover the risk of damage to their homes resulting from hazards such as fire, wind and, for properties in a Special Flood Hazard Area as designated by FEMA, flooding. Approximately 3.5% of loans in our single-family guaranty book of business and 5% of loans in our multifamily guaranty book of business are located in a Special Flood Hazard Area. For flood insurance, single-family borrowers generally rely on the National Flood Insurance Program ("NFIP"), which was recently extended through September 2020 after a series of short-term extensions since late 2017. If Congress fails to extend or re-authorize the program upon future expirations, FEMA may not have sufficient funds to pay claims for flood damage, and borrowers may not be able to renew their flood insurance coverage or obtain new policies through the NFIP. In addition, NFIP insurance does not cover temporary living expenses, and the maximum limit of coverage available under NFIP for a single-family residential property is $250,000, which may not be sufficient to cover all losses. Moreover, any increase in the severity or frequency of floods or other weather-related disasters as a result of changing weather patterns could intensify the foregoing risks. If borrowers are unable to obtain property or flood insurance and suffer property damage, if their claims under insurance policies are not paid, or if they suffer property damage as a result of a hazard for which we do not generally require insurance, such as earthquake damage or flood damage on a property located outside a Special Flood Hazard Area, they may not pay their mortgage loans, which would negatively impact our credit losses and credit-related expenses.

The occurrence of major natural or other disasters in the United States or its territories, and any increase in the frequency and severity of such events, 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 and its territories. The occurrence of a major natural or environmental disaster, terrorist attack, cyber attack, pandemic, or similar event (a "major disruptive event") in the United States or its territories could negatively impact our credit losses and credit-related expenses in the affected geographic area or, depending on the magnitude, scope and nature of the event, nationally, in a number of ways. For example, 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 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. Further, a major disruptive event that discourages housing activity, including homebuilding or home buying, or causes a deterioration in housing conditions in the affected region could lower the volume of originations in the mortgage market, influence home prices and property values in the affected region or in adjacent regions and increase delinquency rates and default rates. Any of these outcomes could generate significant credit losses and credit-related expenses and have a material adverse effect on our business, results of operations, financial condition, liquidity and net worth.

Recent years have seen frequent and severe natural disasters in the U.S., including hurricanes, wildfires and floods. There are concerns that the frequency and severity of major weather-related events is indicative of changing weather patterns and that these patterns could persist or intensify. Population growth and an increase in people living in high-risk areas, such as coastal areas vulnerable to severe storms and flooding, has also increased the impact of these events. Although our financial exposure from these events is mitigated to the extent our book of business is geographically diverse, we remain exposed to risk, particularly in connection with the risk of geographically widespread weather events due to global changes in weather patterns. In addition, the increasing unpredictability of major natural disasters negatively affects our ability to forecast losses from such events, which may negatively impact our ability to accurately address the likelihood of such losses in the guaranty fees that we charge. As a result, any continuation or increase in recent weather trends or their unpredictability, or any single natural disaster of significant scope or severity, could have a material impact on our results of operations and financial

condition. Further, legal or regulatory responses to concerns about global climate change may impact the housing markets and, as a result, our business.

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

Substantially all of our employees and business operations functions are consolidated in two metropolitan areas: Washington, DC and Dallas, Texas. As a result of this concentration of our employees and facilities, a 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 Dallas metropolitan areas, a regional disruption in one of these areas could prevent our employees from occupying our facilities, working remotely, or communicating with or traveling to other locations. Further, if the frequency, severity or unpredictability of weather-related events in the Washington, DC or Dallas regions increases as a result of changing weather patterns, then these disruptions could occur regularly or last for longer periods of time. Accordingly, the occurrence of one or more major disruptive events 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, result in regulatory sanctions and/or 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. A number of financial services companies, consumer-based companies and other organizations have reported 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 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, our migration to cloud-based systems, our increased use of employee-owned devices for business communication, 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 financial 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.

Cyber attacks can occur and persist for an extended period of time without detection. Investigations of cyber attacks are inherently unpredictable, and it takes time to complete an investigation and have full and reliable information. While we are investigating a cyber attack, we do not necessarily know the extent of the harm or how best to remediate it, and we can repeat or compound certain errors or actions before we discover and remediate them. 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 materially 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 materially 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. In addition, our customers maintain personal, confidential and proprietary information on systems we provide. 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 transitioning our core information technology systems to third-party cloud-based platforms. If completing this initiative is delayed or we fail to complete it in a well-managed, secure and effective manner, we may experience unplanned service disruption or unforeseen costs, which could result in material harm to our business and results of operations. 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 Management 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, and our liquidity contingency plans may be difficult or impossible to execute during a sustained liquidity crisis.

Our ability to fund our business depends on our ongoing access to the debt capital markets. Market concerns about matters such as the extent of government support for our business and debt securities, 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, our debt securities or our status as a government-sponsored enterprise, including changes arising in connection with efforts to end our conservatorship, 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 our business or our debt securities, or that our current level of access to debt funding will continue. As described in “Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Housing Reform Plan,” the Treasury plan contemplates amending our senior preferred stock purchase agreement with Treasury. If our senior preferred stock purchase agreement with Treasury is amended to reduce its support for our debt securities issued after such amendment, it could materially increase our borrowing costs or materially adversely affect our access to the debt capital markets. 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 sustained market 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 source of liquidity, our other investments portfolio, may not be sufficient to meet our liquidity needs.

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 our business or our debt securities receive from Treasury could adversely affect the credit ratings on our senior unsecured debt. If our senior preferred stock purchase agreement with Treasury is amended to reduce its support for our debt securities issued after such amendment, it could result in a downgrade in the credit ratings on our senior unsecured debt.

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 the potential impact of a credit ratings downgrade on demand for our securities or on our business.

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 are subject to interest-rate risk, which is the risk that movements in interest rates will adversely affect the value of our assets or liabilities or our future earnings. The primary source of our interest-rate risk is our retained mortgage portfolio, other investments portfolio and the Fannie Mae debt and risk management derivatives we use to fund and manage these portfolios. 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, which could have a material adverse effect on our financial results and condition, as well as our liquidity.

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. While we are developing capabilities to implement hedge accounting to reduce the impact of interest-rate volatility on our financial results, 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 loans and therefore increases our impairment related to any concessions we may 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, as well as the current market spreads of our CAS deals issued prior to 2016 that are subject to fair value accounting. 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 potential discontinuance 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 that reference LIBOR, including acquiring loans and securities, selling securities and entering into derivative transactions that reference LIBOR. In 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. The Federal Reserve convened a group of private-market participants, known as the ARRC, to identify a set of alternative U.S. dollar reference interest rates and an adoption plan for those alternative rates. We are a voting member of the ARRC and participate in its working groups. In 2017, the ARRC recommended an alternative reference rate referred to as SOFR and the Federal Reserve Bank of New York began publishing SOFR in 2018. However, SOFR is calculated based on different criteria than LIBOR. Accordingly, SOFR and LIBOR may diverge, particularly in times of macroeconomic stress. Since the initial publication of SOFR in 2018, daily changes in SOFR have at times been more volatile than daily changes in comparable benchmark or market rates, and SOFR may be subject to direct influence by activities of the Federal Reserve and the Federal Reserve Bank of New York in ways that other rates may not be. For example, at the direction of the Federal Reserve, in late September 2019, the Federal Reserve Bank of New York

began conducting a series of overnight and term repurchase agreement (“repo”) operations to help maintain the federal funds rate within a target range. In January 2020, the Federal Reserve Bank of New York announced that this activity would continue at least through April 2020. These activities directly impact prevailing SOFR rates.

While many of our LIBOR-indexed financial instruments allow us to take discretionary action to select an alternative reference rate if LIBOR is discontinued, our use of an alternative reference rate may be subject to legal challenges. There is considerable uncertainty as to how the financial services industry will address the discontinuance of LIBOR in financial instruments. This uncertainty could result in disputes and litigation with counterparties and borrowers surrounding the implementation of alternative reference rates in our financial instruments that reference LIBOR. 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 other factors. There can be no assurance that legislative or regulatory actions will dictate what happens if LIBOR ceases or is no longer viable, or what those actions might be. In addition, while the ARRC was created to ensure a successful transition from LIBOR, there can be no assurance that the ARRC will endorse practices that create a smooth transition and minimize value transfers between market participants, or that its endorsed practices will be broadly adopted by market participants. 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 those that we own or have issued. Alternative reference rates that replace LIBOR may not yield the same or similar economic results over the lives of the financial instruments, which could adversely affect the value of and return on these instruments. The LIBOR transition could result in our paying higher interest rates on our current LIBOR-indexed obligations, adversely affect the yield on and fair value of the loans and securities we hold or guarantee that reference LIBOR, and increase the costs of or affect our ability to effectively use derivative instruments to manage interest-rate risk.

In addition, we cannot anticipate how long it will take to develop the systems and processes necessary to adopt SOFR or other benchmark replacements, which may delay and contribute to uncertainty and volatility surrounding the LIBOR transition.

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.

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. 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. A slowdown in economic growth around the world remains a concern for policy makers and financial markets. To the extent global economic conditions negatively affect the U.S. economy, they 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 global growth and 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 cap on mortgage interest deductions, the increase in the amount of the standard deduction and other 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 continued run-off of mortgage-backed securities from the Federal Reserve's portfolio 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. In October 2017, the Federal Reserve initiated a balance sheet normalization program to reduce its holdings of Treasury securities and mortgage-backed securities. While the Federal Reserve stopped the run-off of U.S. Treasury securities from its portfolio in September 2019, it continued to allow its mortgage-backed securities to run-off, replacing the principal balance with U.S. Treasuries and thus holding the portfolio constant. This may create upward pressure on mortgage interest rates and reduce demand for mortgage-backed securities, which 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.

In addition, 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.

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. Changes to financial regulations could affect our business directly or indirectly if they affect our customers and counterparties. 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; and the Dodd-Frank Act risk retention and single-counterparty credit limit requirements.

Our business and results also may be adversely affected by changes in the CFPB's "ability-to-repay" rule to replace the "qualified mortgage patch," including proposed changes to the rule discussed in "Business—Charter Act and Regulation—GSE Act and Other Legislation." Although the ability-to-repay rule does not apply directly to us, the rule applies to the lenders from which we acquire single-family mortgage loans. And because FHFA has directed that Fannie Mae and Freddie Mac shall only acquire loans that are qualified mortgages under the ability-to-repay rule, changes in the rule may reduce the volume of loans that are eligible for delivery to us, and may increase the competition we face for the acquisition and guaranty of such loans.

Changes in regulations applicable to U.S. banks could affect the volume and characteristics of mortgage loans available in the market. For example, in December 2019, the Office of the Comptroller of the Currency and Federal Deposit Insurance Corporation jointly proposed new regulations under the Community Reinvestment Act ("CRA") that could encourage banks regulated by these agencies to hold mortgage loans that satisfy their CRA obligations on their balance sheets, rather than selling them to us in the secondary market.

Changes in regulations could also affect demand for our debt and MBS, 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 banks' willingness to deliver loans to us and demand by those banks for our debt securities and MBS. Developments in connection with the single-counterparty credit limit regulations, including those taken in anticipation of our eventual exit from conservatorship, could also cause our customers to change their business practices.

The actions of Treasury, the Commodity Futures Trading Commission, the SEC, the Federal Deposit Insurance Corporation, 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, could have a material adverse effect on our financial results or net worth.

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 acceptable 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 our allowance for loan losses accounting policy as critical to the presentation of our financial condition and results of operations. This policy is described in "MD&A—Critical Accounting Policies and Estimates." We believe this policy is critical because it requires 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. This effect will be increased with our implementation of the CECL standard on January 1, 2020, because, for loans that are collectively evaluated for impairment, our credit-related income or expense will reflect expected lifetime losses, rather than just incurred losses. As a result, the implementation of the CECL standard will introduce additional volatility to our results.

Many of our accounting methods involve substantial use of models. For example, we will determine expected lifetime losses on loans and other financial instruments subject to the CECL standard using 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:

- Designation as a systemically important financial institution. The Senate Committee on Banking, Housing, and Urban Affairs held a hearing in June 2019 on whether we should be regulated as a systemically important financial institution, which would result in our becoming subject to additional regulation and oversight by the Federal Reserve Board.
- 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.
- Court decisions concluding that we or our affiliates are a federal agency, which could impose additional burdens and requirements on us.
- 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.
- State and local laws and regulations expanding rent control and other tenant protections, such as New York's Housing Stability and Tenant Protection Act of 2019, which could negatively affect the housing market in the applicable areas and increase our credit risk on the loans we guarantee in those areas.

- Other agencies of the U.S. government or Congress asking us to take actions to support the housing and mortgage markets or in support of other goals. For example, in December 2011 Congress enacted the TCCA under which we increased our guaranty fee on all single-family mortgages delivered to us through December 31, 2021 by 10 basis points. The revenue generated by this fee increase is paid to Treasury.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

There are no physical properties that are material to us.

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 and their outcome and effect on our business and financial condition 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 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, 2019 are as follows:

District of Columbia. Fannie Mae is a defendant in three cases pending in the U.S. District Court for the District of Columbia—a consolidated putative class action and two additional cases. In all three cases, Fannie Mae and Freddie Mac stockholders filed amended complaints on November 1, 2017 against us, FHFA as our conservator and Freddie Mac. On September 28, 2018, the court dismissed all of the plaintiffs’ claims in these cases, except for their claims for breach of an implied covenant of good faith and fair dealing. In a fourth case that was filed in the U.S. District Court for the District of Columbia on May 21, 2018, the court granted defendants’ motion to dismiss on March 6, 2019, and on March 18, 2019, plaintiff moved to alter or amend the judgment and to file an amended complaint. On May 24, 2019, the court denied this motion. On June 19, 2019, plaintiff filed a notice of appeal of the court’s dismissal and related orders with the U.S. Court of Appeals for the District of Columbia Circuit. All four cases are described in “Note 16, Commitments and Contingencies.”

Southern District of Texas (Collins v. Mnuchin). 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 September 6, 2019, the U.S. Court of Appeals for the Fifth Circuit, sitting en banc, affirmed the district court’s dismissal of claims against Treasury, but reversed the dismissal of claims against FHFA. The court held that plaintiffs could pursue their claim that FHFA exceeded its statutory powers as conservator when it implemented the net worth sweep provisions of the senior preferred stock purchase agreements in August 2012. The court also held that the provision of the Housing and Economic Recovery Act that insulates the FHFA Director from removal without cause violates constitutional separation of powers principles and, thus, that the FHFA Director may be removed by the president for any reason. The court held that the appropriate remedy for this violation is to declare the provision severed from the statute. Plaintiffs have requested that the Supreme Court review the constitutional claim, arguing that the relief granted by Fifth Circuit is insufficient, and the government has requested review of the decision to allow the plaintiffs’ statutory claims to go forward.

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 four 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; Perry Capital LLC v. United States of America, filed on August 15, 2018; and Fairholme Funds Inc. v. United States, which was originally filed on July 9, 2013, and amended publicly to include Fannie Mae as a nominal defendant on October 2, 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, Perry Capital and Fairholme Funds 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 and Fairholme Funds plaintiffs allege similar breach of contract claims, as well as direct and derivative breach of fiduciary duty claims against the government. Plaintiffs in Fisher request just compensation to Fannie Mae in an unspecified amount. Plaintiffs in Rafter, Perry Capital and Fairholme Funds 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, Rafter and Fairholme cases on August 1, 2018. On December 6, 2019, the Court entered an order in the Fairholme case that granted the government's motion to dismiss all the direct claims but denied the motion as to all of the derivative claims brought on behalf of Fannie Mae.

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. On July 22, 2019, we entered into an agreement resolving our claims against two of the defendants in this lawsuit: Citigroup Inc. and Citibank, N.A. The financial impact of the settlement was not material to our financial statements.

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, 2020, we had approximately 8,000 registered holders of record of our common stock. In addition, as of January 31, 2020, 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, 2019, 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 Equity 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, 2019, 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.

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

Our Purchases of Equity Securities

We did not repurchase any of our equity securities during the fourth quarter of 2019.

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, 2019, 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 section should be read together with our consolidated financial statements and the accompanying notes.

	For the Year Ended December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(Dollars in millions)				
Statement of operations data:					
Net revenues[1]	**$ 22,138**	$ 21,930	$ 22,960	$ 22,261	$ 22,757
Net income attributable to Fannie Mae	**14,160**	15,959	2,463	12,313	10,954
New business purchase data:					
New business purchases[2]	**$ 666,878**	$ 512,023	$ 569,616	$ 637,425	$ 515,541
Performance ratios:					
Net interest yield[3]	**0.61 %**	0.63 %	0.64 %	0.67 %	0.68 %
Credit (income) loss ratio (in basis points):[4]					
Single-family	**5.9 bps**	8.5 bps	10.2 bps	11.6 bps	35.8 bps
Multifamily	**(0.1)**	0.6	(0.7)	(0.2)	(2.7)
Return on assets[5]	**0.41 %**	0.47 %	0.07 %	0.38 %	0.34 %

	As of December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(Dollars in millions)				
Balance sheet data:					
Investments in securities	**$ 50,527**	$ 45,296	$ 39,522	$ 48,925	$ 60,138
Mortgage loans, net of allowance	**3,334,162**	3,249,395	3,178,525	3,079,753	3,019,644
Total assets	**3,503,319**	3,418,318	3,345,529	3,287,968	3,221,917
Short-term debt	**26,662**	24,896	33,756	35,579	71,950
Long-term debt	**3,440,724**	3,367,024	3,296,298	3,226,737	3,125,721
Total liabilities	**3,488,711**	3,412,078	3,349,215	3,281,897	3,217,858
Senior preferred stock	**120,836**	120,836	117,149	117,149	117,149
Preferred stock	**19,130**	19,130	19,130	19,130	19,130
Total Fannie Mae stockholders' equity (deficit)	**14,608**	6,240	(3,686)	6,071	4,030
Net worth surplus (deficit)	**14,608**	6,240	(3,686)	6,071	4,059

	As of December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(Dollars in millions)				
Book of business data:					
Guaranty book of business[6]	**$ 3,367,498**	$ 3,269,152	$ 3,211,858	$ 3,134,005	$ 3,076,556
Credit quality:					
Total troubled debt restructurings on accrual status	**$ 81,700**	$ 98,375	$ 110,130	$ 127,494	$ 140,964
Total nonaccrual loans[7]	**29,147**	32,150	47,369	44,450	49,412
Loss reserves[8]	**(9,047)**	(14,252)	(19,400)	(23,835)	(28,590)
Loss reserves as a percentage of guaranty book of business:					
Single-family	**0.30 %**	0.49 %	0.65 %	0.83 %	1.00 %
Multifamily	**0.08**	0.08	0.09	0.08	0.12

(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) Calculated based on net income for the reporting period divided by average total assets during the period, expressed as a percentage. Average balances for purposes of ratio calculations are based on balances at the beginning of the year and at the end of each quarter for each year shown.

(6) Refers to the sum of the unpaid principal balance of: (a) Fannie Mae MBS outstanding (excluding the portions of any structured securities Fannie Mae issues that are backed by Freddie Mac securities); (b) mortgage loans of Fannie Mae held in our retained mortgage portfolio; and (c) other credit enhancements that we provide on mortgage assets. It also excludes non-Fannie Mae mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty.

(7) 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.

(8) Consists of our allowance for loan losses and reserve for guaranty losses. The measurement of our loss reserves was impacted upon the adoption of the CECL standard on January 1, 2020, which will be reflected in our financial statements for the quarter ending March 31, 2020. See “Note 1, Summary of Significant Accounting Policies” for more information about our adoption of the CECL standard.

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

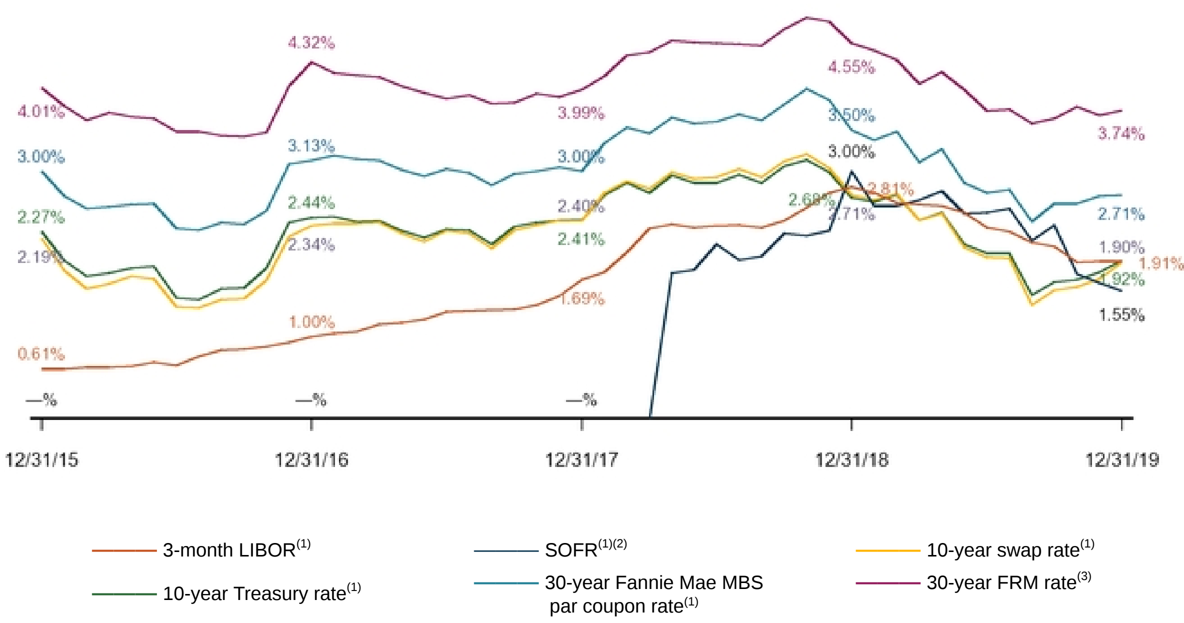
You should read this MD&A together with our consolidated financial statements as of December 31, 2019 and the accompanying notes. This MD&A does not discuss 2017 performance or a comparison of 2017 versus 2018 performance for select areas where we have determined the omitted information is not necessary to understand our current period financial condition, changes in our financial condition, or our results. The omitted information may be found in our 2018 Form 10-K, filed with the SEC on February 14, 2019, in MD&A sections titled “Consolidated Results of Operations,” “Single-Family Business,” “Multifamily Business,” and “Liquidity and Capital Management.”

Key Market Economic Indicators

Below we discuss how varying macroeconomic conditions can significantly influence our financial results across different business and economic environments.

Interest Rates

Selected Benchmark Interest Rates



(1) According to Bloomberg.

(2) SOFR began April 2018.

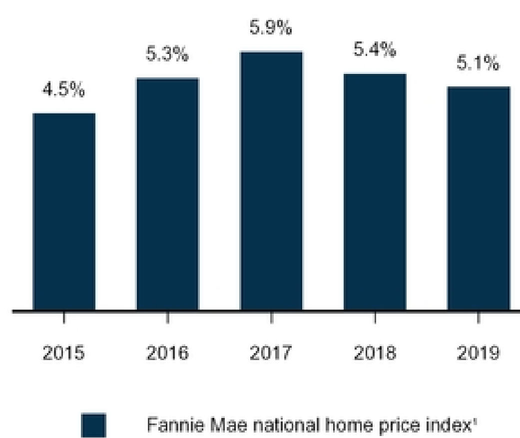
(3) Refers to the U.S. weekly average fixed-rate mortgage rate according to Freddie Mac's Primary Mortgage Market Survey®. These rates are reported using the latest available data for a given period.

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, typically 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. We are developing

capabilities to implement hedge accounting to reduce the impact of interest-rate volatility on our financial results. For additional information on the expected impact of hedge accounting, see "Consolidated Results of Operations—Fair Value Gains (Losses), Net."

- *Credit-related income (expense).* Increases in mortgage interest rates tend to lengthen the expected lives of our modified loans, which generally increases the impairment and provision for credit losses on such loans. Decreases in mortgage interest rates tend to shorten the expected lives of our modified loans, which reduces the impairment and provision for credit losses on such loans.



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.
- We expect home price appreciation on a national basis to moderate slightly in 2020, as compared with 2018 and 2019. We also expect significant regional variation in the timing and rate of home price growth. For further discussion on housing activity, see "Single-Family Business—Single-Family Mortgage Market" and "Multifamily Business—Multifamily Mortgage Market."

(1) Calculated internally using property data 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. Fannie Mae's home price estimates are based on preliminary data and are subject to change as additional data become available.

New Housing Starts(1)

(1) According to U.S. Census Bureau and subject to revision.

How housing activity can affect our financial results

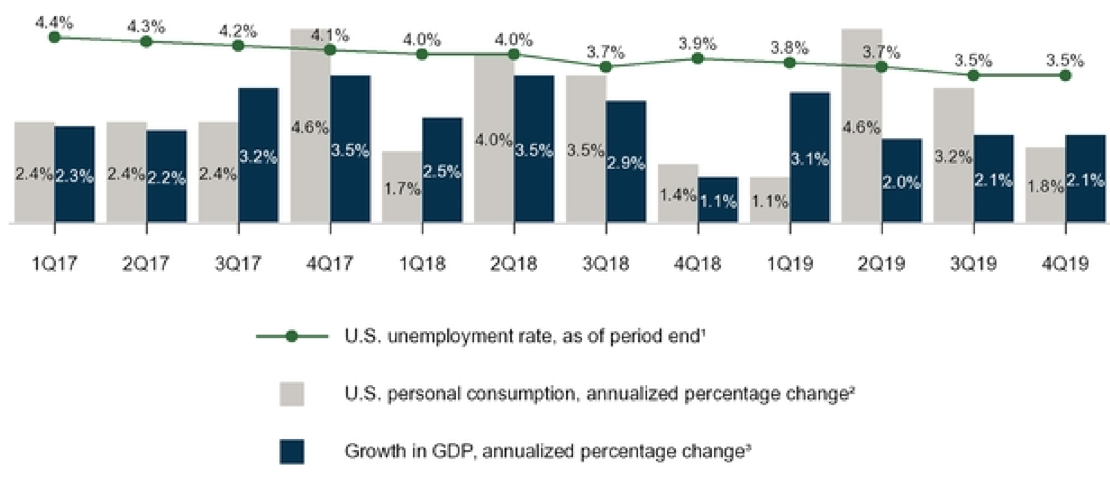
- Two key aspects of economic activity that can impact supply and demand for housing and thus mortgage lending are the rate of household formation and new housing construction.

- Household formation is a key driver of demand for both single-family and multifamily housing. A newly formed household will either rent or purchase a home. Thus, changes in the pace of household formation can have implications for both prices and credit performance as well as the degree of loss on defaulted loans.

- Growth of household formation stimulates homebuilding. Homebuilding has typically been a cyclical leader of broader economic activity contributing to the growth of GDP and to employment. Residential construction activity has historically been a leading indicator, weakening prior to a slowdown in U.S. economic activity and accelerating prior to a recovery. However, the most recent recession was significantly impacted by real estate and real estate finance. Therefore, various policy responses were targeted to real estate and real estate finance, potentially altering the cyclical performance of the real estate sector. There has not been a full housing cycle since the last recession, so it is possible the sector's future performance will vary from its historical performance.

- A decline in housing starts results in fewer new homes being available for purchase and potentially a lower volume of mortgage originations. Construction activity can also affect credit losses. If the growth of demand exceeds the growth of supply, prices will appreciate and impact the risk profile of newly originated home purchase mortgages, depending on where in the housing cycle the market is. However, a reduced pace of construction often leads to a broader economic slowdown and signals expected increases in delinquency and losses on defaulted loans.

GDP, Unemployment Rate and Personal Consumption



(1) According to the U.S. Bureau of Labor Statistics and subject to revision.
(2) Personal consumption growth is the quarterly series calculated by the Bureau of Economic Analysis and is subject to revision.
(3) GDP growth is the quarterly series calculated by the Bureau of Economic Analysis and is subject to revision.

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

- Changes in GDP, the unemployment rate and personal consumption can affect several mortgage market factors, including the demand for both single-family and multifamily housing and the level of loan delinquencies.
- Economic growth is a key factor for the performance of mortgage-related assets. In a growing economy, employment and income are rising thus allowing existing borrowers to meet payment requirements, existing homeowners to consider purchasing another home, and renters to consider becoming homeowners. Homebuilding typically increases to meet the rise in demand. Mortgage delinquencies typically fall in an expanding economy, thereby decreasing credit losses.
- In a slowing economy, employment and income growth slow and housing activity slows as an early indicator of reduced economic activity. As the slowdown intensifies, households become more conservative and debt repayment takes precedence over consumption, which then falls and accelerates the slowdown. If the slowdown of economic growth turns to recession, employment losses occur impairing the ability of borrowers to meet mortgage payments and delinquencies rise. Home sales and mortgage originations also fall in a slowing economy.

See "Risk Factors—Market and Industry Risk" for further discussion of risks to our business and financial results associated with interest rates, home prices, housing activity and economic conditions.

Consolidated Results of Operations

This section discusses our consolidated results of operations and should be read together with our consolidated financial statements and the accompanying notes.

Summary of Consolidated Results of Operations

	For the Year Ended December 31,			Variance	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
	(Dollars in millions)				
Net interest income	**$ 20,962**	$ 20,951	$ 20,733	$ 11	$ 218
Fee and other income	**1,176**	979	2,227	197	(1,248)
Net revenues	**22,138**	21,930	22,960	208	(1,030)
Investment gains, net	**1,770**	952	1,522	818	(570)
Fair value gains (losses), net	**(2,214)**	1,121	(1,211)	(3,335)	2,332
Administrative expenses	**(3,023)**	(3,059)	(2,737)	36	(322)
Credit-related income:					
Benefit for credit losses	**4,011**	3,309	2,041	702	1,268
Foreclosed property expense	**(515)**	(617)	(521)	102	(96)
Total credit-related income	**3,496**	2,692	1,520	804	1,172
TCCA fees	**(2,432)**	(2,284)	(2,096)	(148)	(188)
Other expenses, net	**(2,158)**	(1,253)	(1,511)	(905)	258
Income before federal income taxes	**17,577**	20,099	18,447	(2,522)	1,652
Provision for federal income taxes	**(3,417)**	(4,140)	(15,984)	723	11,844
Net income	**$ 14,160**	$ 15,959	$ 2,463	$ (1,799)	$ 13,496
Total comprehensive income	**$ 13,969**	$ 15,611	$ 2,257	$ (1,642)	$ 13,354

Net Interest Income

Our primary source of net interest income is guaranty fees we receive for managing the credit risk on loans underlying Fannie Mae MBS held by third parties.

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 in 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 timing of when we recognize amortization income can vary based on a number of factors, the most significant of which is a change in mortgage 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, typically resulting in higher net amortization income.

We also recognize net interest income on 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.

The table below displays the components of our net interest income from our guaranty book of business, which we discuss in "Guaranty Book of Business," and from our portfolios.

Components of Net Interest Income

	For the Year Ended December 31,			Variance	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
	(Dollars in millions)				
Net interest income from guaranty book of business:					
Base guaranty fee income, net of TCCA	**$ 9,413**	$ 8,615	$ 8,139	$ 798	$ 476
Base guaranty fee income related to TCCA[1]	**2,432**	2,284	2,096	148	188
Net amortization income	**5,833**	5,626	6,158	207	(532)
Total net interest income from guaranty book of business	**17,678**	16,525	16,393	1,153	132
Net interest income from portfolios[2]	**3,284**	4,426	4,340	(1,142)	86
Total net interest income	**$ 20,962**	$ 20,951	$ 20,733	$ 11	$ 218

(1) 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.

(2) 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, $1.4 billion and $1.0 billion in 2019, 2018 and 2017, respectively.

Net interest income from base guaranty fees:

- Increased in 2019 compared with 2018 and in 2018 compared with 2017 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.

Net interest income from net amortization income:

- Increased in 2019 compared with 2018 as a lower interest-rate environment in 2019 led to increased prepayments on mortgage loans, which accelerated the amortization of cost basis adjustments on mortgage loans of consolidated trusts and the related debt. Conversely, higher interest rates in 2018 compared with 2017 led to a decline in prepayments and net amortization income in 2018 from 2017.

Net interest income from portfolios:

- Decreased in 2019 compared with 2018 primarily due to sales of reperforming loans as well as liquidations, which reduced the average balance of our retained mortgage portfolio. This was partially offset by increased interest income on our other investments portfolio due to higher short-term interest rates on our federal funds sold and securities purchased under agreements to resell or similar arrangements, and a higher average balance of non-mortgage-related securities.

Analysis of Deferred Amortization Income

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.

Our net premium position on debt of consolidated MBS trusts decreased in 2019 compared with 2018. The low interest-rate environment coupled with a flatter yield curve throughout most of 2019 made it economically attractive to adjust the pass-through rates downward on new MBS issuances, which resulted in recognizing fewer premiums on newly issued MBS debt than in prior periods. In addition, increased refinancing activity in 2019 extinguished MBS debt that had been issued in the past with higher premiums.

Deferred Income Represented by Net Premium Position on Debt of Consolidated Trusts

(Dollars in billions)

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(1)

	For the Year Ended December 31,								
	2019			2018			2017		
	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	**$ 116,350**	**$ 4,959**	**4.26%**	$ 149,878	$ 6,641	4.43%	$ 186,216	$ 7,726	4.15%
Mortgage loans of consolidated trusts	**3,181,505**	**111,805**	**3.51**	3,083,060	107,964	3.50	2,966,541	100,593	3.39
Total mortgage loans(2)	**3,297,855**	**116,764**	**3.54**	3,232,938	114,605	3.54	3,152,757	108,319	3.44
Mortgage-related securities	**10,115**	**421**	**4.16**	10,744	440	4.10	12,984	450	3.47
Non-mortgage-related securities(3)	**61,332**	**1,381**	**2.22**	55,809	1,126	1.99	55,778	591	1.06
Federal funds sold and securities purchased under agreements to resell or similar arrangements	**35,891**	**843**	**2.32**	37,338	742	1.96	37,369	373	1.00
Advances to lenders	**5,410**	**163**	**2.97**	4,102	136	3.27	4,506	123	2.73
Total interest-earning assets	**$ 3,410,603**	**$ 119,572**	**3.50%**	$ 3,340,931	$ 117,049	3.50%	$ 3,263,394	$ 109,856	3.37%
Interest-bearing liabilities:									
Short-term funding debt	**$ 23,426**	**$ (501)**	**2.11%**	$ 25,835	$ (464)	1.77%	$ 29,651	$ (246)	0.83%
Long-term funding debt	**164,752**	**(4,115)**	**2.50**	200,478	(4,557)	2.27	253,138	(5,287)	2.09
Connecticut Avenue Securities® (“CAS”)	**23,630**	**(1,433)**	**6.06**	24,247	(1,391)	5.74	19,631	(1,006)	5.12
Total debt of Fannie Mae	**211,808**	**(6,049)**	**2.86**	250,560	(6,412)	2.56	302,420	(6,539)	2.16
Debt securities of consolidated trusts held by third parties	**3,190,070**	**(92,561)**	**2.90**	3,084,846	(89,686)	2.91	2,969,238	(82,584)	2.78
Total interest-bearing liabilities	**$ 3,401,878**	**$ (98,610)**	**2.90%**	$ 3,335,406	$ (96,098)	2.88%	$ 3,271,658	$ (89,123)	2.72%
Net interest income/net interest yield		**$ 20,962**	**0.61%**		$ 20,951	0.63%		$ 20,733	0.64%

(1) Includes the effects of discounts, premiums and other cost basis adjustments.

(2) Average balance includes mortgage loans on nonaccrual status. Typically, interest income on nonaccrual mortgage loans is recognized when cash is received. Interest income from the amortization of loan fees, primarily consisting of upfront cash fees, was $5.4 billion, $4.2 billion and $4.3 billion for the years ended 2019, 2018, and 2017, respectively.

(3) Consists of cash, cash equivalents and U.S. Treasury securities.

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

	2019 vs. 2018			2018 vs. 2017		
	Total Variance	Variance Due to:[1] Volume	Variance Due to:[1] Rate	Total Variance	Variance Due to:[1] Volume	Variance Due to:[1] Rate
	(Dollars in millions)					
Interest income:						
Mortgage loans of Fannie Mae	$ (1,682)	$ (1,437)	$ (245)	$ (1,085)	$ (1,584)	$ 499
Mortgage loans of consolidated trusts	3,841	3,458	383	7,371	4,022	3,349
Total mortgage loans	2,159	2,021	138	6,286	2,438	3,848
Mortgage-related securities	(19)	(26)	7	(10)	(86)	76
Non-mortgage-related securities[2]	255	118	137	535	—	535
Federal funds sold and securities purchased under agreements to resell or similar arrangements	101	(30)	131	369	—	369
Advances to lenders	27	40	(13)	13	(12)	25
Total interest income	$ 2,523	$ 2,123	$ 400	$ 7,193	$ 2,340	$ 4,853
Interest expense:						
Short-term funding debt	$ (37)	$ 46	$ (83)	$ (218)	$ 35	$ (253)
Long-term funding debt	442	864	(422)	730	1,168	(438)
CAS debt	(42)	36	(78)	(385)	(255)	(130)
Total debt of Fannie Mae	363	946	(583)	127	948	(821)
Debt securities of consolidated trusts held by third parties	(2,875)	(3,105)	230	(7,102)	(3,295)	(3,807)
Total interest expense	$ (2,512)	$ (2,159)	$ (353)	$ (6,975)	$ (2,347)	$ (4,628)
Net interest income	$ 11	$ (36)	$ 47	$ 218	$ (7)	$ 225

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

(2) Consists of cash, cash equivalents and U.S. Treasury securities.

Fee and Other Income

Fee and other income includes transaction fees, multifamily fees and other miscellaneous income. Fee and other income increased in 2019 compared with 2018, primarily due to an increase in yield maintenance fees due to increased prepayments on multifamily loans as interest rates decreased during the year. Fee and other income decreased in 2018 compared with 2017, 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 held for sale (“HFS”) loans. Investment gains, net increased during 2019 compared with 2018 primarily driven by an increase in gains on sales of single-family 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.

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 statements of operations and comprehensive income.

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

Fair Value Gains (Losses), Net

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in millions)		
Risk management derivatives fair value gains (losses) attributable to:			
Net contractual interest expense on interest-rate swaps	**$ (833)**	$ (1,061)	$ (889)
Net change in fair value during the period	**(199)**	1,133	316
Total risk management derivatives fair value gains (losses), net	**(1,032)**	72	(573)
Mortgage commitment derivatives fair value gains (losses), net	**(1,043)**	324	(603)
Credit enhancement derivatives fair value gains (losses), net	**(35)**	26	(9)
Total derivatives fair value gains (losses), net	**(2,110)**	422	(1,185)
Trading securities gains, net	**322**	126	190
CAS debt fair value gains (losses), net	**145**	208	(297)
Other, net[1]	**(571)**	365	81
Fair value gains (losses), net	**$ (2,214)**	$ 1,121	$ (1,211)

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

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 ("OTC") 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 losses in 2019, primarily as a result of net interest expense on interest-rate swaps combined with a decrease in the fair value of our interest-rate swaps due to the decline in interest rates during the year.

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 net interest expense on interest-rate swaps in 2018.

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."

Expected Impact of Hedge Accounting

We are developing capabilities to implement fair value hedge accounting to reduce the impact of interest-rate volatility on our financial results. Once implemented, derivative fair value gains and losses resulting from changes in certain benchmark interest rates, such as LIBOR or SOFR, may be reduced by offsetting gains and losses in the fair value of designated hedged mortgage loans or debt. Therefore, we expect the volatility of our financial results associated with changes in interest rates will be reduced substantially while fair value gains and losses driven by other factors, such as credit spreads, will remain.

Mortgage Commitment Derivatives Fair Value Gains (Losses), Net

We generally account for certain commitments to purchase or sell mortgage-related securities and to purchase single-family mortgage loans 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 losses on our mortgage commitments in 2019 primarily due to losses on commitments to sell mortgage-related securities driven by increases in prices during commitment periods as interest rates declined throughout most of 2019.

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 during commitment periods as interest rates increased throughout most of 2018.

CAS Debt Fair Value Gains (Losses), Net

Credit risk transfer transactions, including CAS debt issuances, transfer a portion of credit losses on a reference pool of mortgage loans to investors. 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 expect our exposure to fair value gains and losses on CAS debt to continue to decline as the outstanding balance of this debt declines.

We recognized fair value gains on CAS debt reported at fair value in 2019 and 2018 primarily due to paydowns and widening 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.”

Fair Value Option Debt of Consolidated Trusts Fair Value Gains (Losses), Net

We elected the fair value option for our long-term debt of consolidated trusts that contain embedded derivatives that would otherwise require bifurcation. The fair value of our long-term consolidated trust debt held at fair value is reported as “Debt of Consolidated Trusts” in our consolidated balance sheets. The changes in the fair value of our long-term consolidated trust debt held at fair value are included in “Other, net” in the table above.

We recognized fair value losses on our long-term debt of consolidated trusts held at fair value in 2019 due to declines in interest rates.

We recognized fair value gains on our long-term debt of consolidated trusts held at fair value in 2018 due to increases in interest rates.

Credit-Related Income

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, events such as natural

disasters, the types and volume of our loss mitigation activities, the volume of foreclosures completed, and the redesignation of loans from held for investment ("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 will likely introduce additional volatility in our results as credit-related income or expense will include expected lifetime losses on our loans and other financial instruments subject to the standard and thus become more sensitive to fluctuations in the factors detailed above.

Benefit for Credit Losses

The table below displays components 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 each period presented were less than $50 million.

Components of Benefit for Credit Losses

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in billions)		
Single-family benefit for credit losses:			
Changes in loan activity[1]	**$ 0.4**	$ 0.8	$ (0.9)
Redesignation of loans from HFI to HFS	**1.4**	1.9	1.1
Actual and forecasted home prices	**0.9**	1.2	1.7
Actual and projected interest rates	**0.3**	(0.8)	(0.4)
Other[2]	**1.0**	0.2	0.6
Total single-family benefit for credit losses	**$ 4.0**	$ 3.3	$ 2.1

(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 charge-offs pursuant to the provisions 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").

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

The primary factors that contributed to our benefit for credit losses in 2019 were:

- The redesignation of certain reperforming 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 for any required write-down. We also reversed amounts in the allowance relating to these loans prior to the charge-off. For the period, the amount of allowance that was reversed exceeded the amounts charged off, which resulted in a net benefit for credit losses.
- During 2019, we enhanced the model used to estimate cash flows for individually impaired single-family loans within our allowance for loan losses. This enhancement was performed as a part of management's routine model performance review process. In addition to incorporating recent loan performance data, this model enhancement better captures recent prepayment activity, default rates, and loss severity in the event of default. The enhancement resulted in a decrease to our allowance for loan losses and an incremental benefit for credit losses of approximately $850 million and is included in "Other" in the table above.
- An increase in actual and forecasted home prices. 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.
- Changes in loan activity. Higher loan liquidation activity generally occurs during a lower interest-rate environment as loans prepay, and during the peak home buying season of the second and third quarters of each year. When mortgage loans prepay, we reverse any remaining allowance related to these loans, which contributed to the benefit for credit losses.

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

- We recognized a benefit from the redesignation of certain reperforming and nonperforming single-family loans from HFI to HFS during the year.
- We recognized a benefit for credit losses due to higher actual and forecasted home prices in the year.

- 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.

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 2019 compared with 2018 as our book of business subject to the TCCA continued to grow during the year. We expect the guaranty fees collected and expenses incurred under the TCCA to increase in 2020 and 2021 as we acquire more loans subject to these fees. After 2021, we expect our expense for TCCA fees to decline as the loans subject to these fees pay off and we are no longer obligated to remit fees on new loan acquisitions. How this will affect the guaranty fees on loans we acquire after 2021 is uncertain. See “Business—Charter Act and Regulation—GSE Act and Other Legislation—Guaranty Fees and Pricing” for further discussion of the TCCA.

Other Expenses, Net

Other expenses, net primarily consist of credit enhancement and mortgage insurance expenses, debt extinguishment gains and losses, housing trust fund expenses, loan subservicing costs and multifamily fees. Other expenses, net increased in 2019 compared with 2018 primarily due to an increase in credit enhancement costs resulting from higher outstanding volumes of credit risk transfer transactions. We expect our credit enhancement costs to continue to rise as the percentage of our guaranty book of business on which we have transferred a portion of credit risk continues to increase. We discuss transfer of mortgage credit risk in “Single-Family Business—Single-Family Mortgage Credit Risk Management—Single-Family Credit Enhancement and Transfer of Mortgage Credit Risk” and “Multifamily Business—Multifamily Mortgage Credit Risk Management—Transfer of Multifamily Mortgage Credit Risk.”

Federal Income Taxes

We recognized a provision for federal income taxes of $3.4 billion in 2019, $4.1 billion in 2018 and $16.0 billion in 2017. Our provision for federal income taxes declined in 2019 compared with 2018 primarily because our income before federal income taxes was lower in 2019 than in 2018. In addition, we recognized a benefit for federal income taxes in 2019 of $205 million as a result of a favorable resolution with the Internal Revenue Service (“IRS”) of an uncertain tax position. The decrease in the provision for federal income taxes in 2018 compared with 2017 was primarily the result of the effects of the Tax Cuts and Jobs Act (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, which significantly increased our effective tax rate for the year.

Our effective tax rates were 19.4% in 2019, 20.6% in 2018 and 86.6% in 2017. Our effective tax rates for each of these periods was also impacted by the benefits of our investments in housing projects eligible for low-income housing tax credits. See “Note 9, Income Taxes” for additional information on our income taxes.

Consolidated Balance Sheet Analysis

This section discusses our consolidated balance sheets and should be read together with our consolidated financial statements and the accompanying notes.

Summary of Consolidated Balance Sheets

	As of December 31,		
	2019	2018	Variance
	(Dollars in millions)		
Assets			
Cash and cash equivalents and federal funds sold and securities purchased under agreements to resell or similar arrangements	**$ 34,762**	$ 58,495	$ (23,733)
Restricted cash	**40,223**	23,866	16,357
Investments in securities	**50,527**	45,296	5,231
Mortgage loans:			
Of Fannie Mae	**101,668**	120,717	(19,049)
Of consolidated trusts	**3,241,510**	3,142,881	98,629
Allowance for loan losses	**(9,016)**	(14,203)	5,187
Mortgage loans, net of allowance for loan losses	**3,334,162**	3,249,395	84,767
Deferred tax assets, net	**11,910**	13,188	(1,278)
Other assets	**31,735**	28,078	3,657
Total assets	**$ 3,503,319**	$ 3,418,318	$ 85,001
Liabilities and equity			
Debt:			
Of Fannie Mae	**$ 182,247**	$ 232,074	$ (49,827)
Of consolidated trusts	**3,285,139**	3,159,846	125,293
Other liabilities	**21,325**	20,158	1,167
Total liabilities	**3,488,711**	3,412,078	76,633
Fannie Mae stockholders' equity (deficit):			
Senior preferred stock	**120,836**	120,836	—
Other net deficit	**(106,228)**	(114,596)	8,368
Total equity	**14,608**	6,240	8,368
Total liabilities and equity	**$ 3,503,319**	$ 3,418,318	$ 85,001

Cash, Cash Equivalents and Restricted Cash

For information on changes in our cash, cash equivalents and restricted cash, see "Liquidity and Capital Management—Liquidity Management—Cash Flows."

Investments in Securities

Investments in U.S. Treasury Securities

Our investments in U.S. Treasury securities are classified in our consolidated balance sheets as investments in securities when the maturity date at the date of acquisition exceeds three months. U.S. Treasury securities included in our other investments portfolio increased to $39.5 billion as of December 31, 2019 from $35.5 billion as of December 31, 2018. For additional information on our investments in U.S. Treasury securities, see the "Other Investments Portfolio" chart in "Liquidity and Capital Management—Liquidity Management—Other Investments Portfolio" and "Note 5, Investments in Securities."

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 or subprime mortgage-backed securities 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, which are included as Fannie Mae securities in the table below.

Summary of Mortgage-Related Securities at Fair Value

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Mortgage-related securities:		
Fannie Mae	**$ 4,944**	$ 3,264
Other agency	**4,688**	3,759
Alt-A and subprime private-label securities	**686**	1,897
Mortgage revenue bonds	**315**	435
Other mortgage-related securities	**314**	350
Total	**$ 10,947**	$ 9,705

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, 2019 and 2018.

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 2019 compared with 2018 primarily driven by:

- an increase in mortgage loans due to acquisitions outpacing liquidations and sales; and
- a decrease in our allowance for loan losses primarily driven by the redesignation of certain reperforming single-family loans from HFI to HFS and as a result of an enhancement to the model used to estimate cash flows for individually impaired single-family loans within our allowance for loan losses, which incorporated recent loan performance data within the model.

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.”

Other Assets

The increase in other assets from December 31, 2018 to December 31, 2019 was primarily driven by an increase in advances to lenders. As interest rates declined during 2019, mortgage activity increased, resulting in higher funding needs by lenders. For information on our accounting policy for advances to lenders, see “Note 1, Summary of Significant Accounting Policies.”

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 2019 was primarily driven by the decline in the size of our retained mortgage portfolio. We did not issue new debt to replace all of our debt of Fannie Mae that was paid off during 2019. The increase in debt of consolidated trusts during 2019 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

Our net equity increased as of December 31, 2019 compared with December 31, 2018 by the amount of our comprehensive income recognized during 2019, partially offset by our payments of senior preferred stock dividends to Treasury during the first two quarters of 2019.

Under the liquidation preference provisions governing the senior preferred stock described in “Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements—Senior Preferred Stock,” the aggregate

liquidation preference of the senior preferred stock increased from $127.2 billion as of September 30, 2019 to $131.2 billion as of December 31, 2019, and will further increase to $135.4 billion as of March 31, 2020.

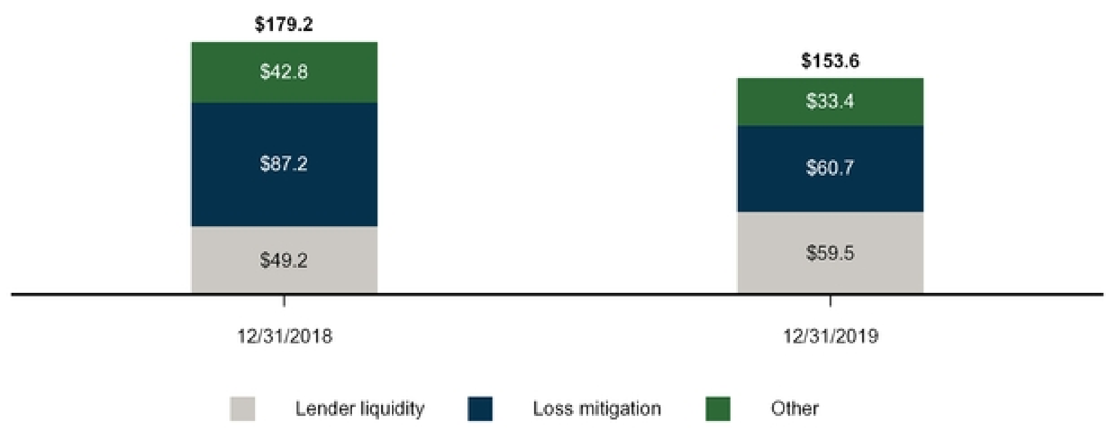
Retained Mortgage Portfolio

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 our MBS trusts.
- *Other* represents assets that were previously purchased for investment purposes. More than half of the balance of "Other" as of December 31, 2019 consisted of Fannie Mae reverse mortgage securities and reverse mortgage loans. We expect the amount of assets in "Other" will continue to decline over time as they liquidate, mature or are sold.



The decrease in our retained mortgage portfolio in 2019 compared with 2018 was due to a decrease in our loss mitigation portfolio driven by portfolio loan sales as well as a decrease in our legacy investment portfolio due to continued liquidations of loans and sales of private-label securities from this book. This decrease was partially offset by an increase in our lender liquidity portfolio due to an increase in our acquisitions of loans through our whole loan conduit in 2019 driven by higher mortgage refinance activity.

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

Retained Mortgage Portfolio

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Lender liquidity:		
Agency securities[1]	**$ 38,375**	$ 40,528
Mortgage loans	**21,152**	8,640
Total lender liquidity	**59,527**	49,168
Loss mitigation mortgage loans[2]	**60,731**	87,220
Other:		
Reverse mortgage loans	**17,129**	21,856
Mortgage loans	**6,546**	8,959
Reverse mortgage securities[3]	**7,575**	7,883
Private-label and other securities	**1,250**	3,042
Fannie Mae-wrapped private-label securities	**581**	650
Mortgage revenue bonds	**272**	375
Total other	**33,353**	42,765
Total retained mortgage portfolio	**$ 153,611**	$ 179,153
Retained mortgage portfolio by segment:		
Single-family mortgage loans and mortgage-related securities	**$ 145,179**	$ 168,338
Multifamily mortgage loans and mortgage-related securities	**$ 8,432**	$ 10,815

(1) Consists of Fannie Mae, Freddie Mac and Ginnie Mae mortgage-related securities, including Freddie Mac securities guaranteed by Fannie Mae. Excludes Fannie Mae and Ginnie Mae reverse mortgage securities and Fannie Mae-wrapped private-label securities.

(2) Includes single-family loans classified as troubled debt restructurings ("TDRs") that were on accrual status of $38.2 billion and $58.5 billion as of December 31, 2019 and 2018, respectively, and single-family loans on nonaccrual status of $19.6 billion and $24.4 billion as of December 31, 2019 and 2018, respectively. Includes multifamily loans classified as TDRs that were on accrual status of $51 million and $57 million as of December 31, 2019 and 2018, respectively, and multifamily loans on nonaccrual status of $132 million and $150 million as of December 31, 2019 and 2018, respectively.

(3) Consists of Fannie Mae and Ginnie Mae reverse mortgage securities.

The amount of mortgage assets that we may own is capped at $250 billion by our senior preferred stock purchase agreement with Treasury, and FHFA has directed that we further cap our mortgage assets at $225 billion, as described in "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements." The Treasury plan includes a recommendation that Treasury and FHFA amend our senior preferred stock purchase agreement to further reduce the cap on our investments in mortgage-related assets, and also to restrict our retained mortgage portfolio to solely supporting the business of securitizing MBS.

In November 2019, FHFA directed us to include 10% of the notional value of interest-only securities in calculating the size of the retained portfolio for the purpose of determining compliance with the senior preferred stock purchase agreement retained portfolio limits and associated FHFA guidance. As of December 31, 2019, 10% of the notional value of our interest-only securities was $2.0 billion, which is not included in the table above. The directive is effective January 31, 2020. We expect our retained mortgage portfolio to remain below the current $225 billion cap, under FHFA's revised calculation. We also expect the size of our retained mortgage portfolio to fluctuate as a result of our activities to support lender liquidity and to shrink to the extent we sell nonperforming and reperforming loans.

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. As described in "Business—Mortgage Securitizations—Uniform Mortgage-Backed Securities, or UMBS" we began issuing UMBS and structured securities backed by UMBS in June 2019. Accordingly, our resecuritization trusts now include Freddie Mac-issued UMBS. Because the underlying mortgage loans that back Freddie Mac-issued UMBS are not in Fannie Mae MBS trusts, we do not have the right to purchase those mortgage loans upon their becoming delinquent. During 2019, we purchased delinquent loans with an unpaid principal balance of $10.5 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.

Guaranty Book of Business

Our "guaranty book of business" consists of:

- Fannie Mae MBS outstanding, excluding the portions of any structured securities we issue that are backed by Freddie Mac securities;
- mortgage loans of Fannie Mae held in our retained mortgage portfolio; and
- other credit enhancements that we provide on mortgage assets.

"Total Fannie Mae guarantees" consists of:

- our guaranty book of business; and
- the portions of any structured securities we issue that are backed by Freddie Mac securities.

In June 2019, we began resecuritizing Freddie Mac securities into Fannie Mae-issued structured securities. In these resecuritizations, our guaranty of principal and interest extends to the underlying Freddie Mac securities. However, Freddie Mac continues to guaranty the payment of principal and interest on the underlying Freddie Mac securities that we have resecuritized. We do not charge an incremental guaranty fee to include Freddie Mac securities in the structured securities that we issue.

The table below displays the composition of our guaranty book of business based on unpaid principal balance. Our single-family guaranty book of business accounted for 90% of our guaranty book of business as of December 31, 2019 and 91% of our guaranty book of business as of December 31, 2018.

Composition of Fannie Mae Guaranty Book of Business[1]

	As of December 31,					
	2019			2018		
	Single-Family	Multifamily	Total	Single-Family	Multifamily	Total
	(Dollars in millions)					
Conventional guaranty book of business[2]	**$ 2,997,475**	**$ 341,522**	**$ 3,338,997**	$ 2,925,246	$ 308,543	$ 3,233,789
Government guaranty book of business[3]	**27,422**	**1,079**	**28,501**	34,158	1,205	35,363
Guaranty Book of Business	**3,024,897**	**342,601**	**3,367,498**	2,959,404	309,748	3,269,152
Freddie Mac securities guaranteed by Fannie Mae[4]	**50,100**	**—**	**50,100**	—	—	—
Total Fannie Mae guarantees	**$ 3,074,997**	**$ 342,601**	**$ 3,417,598**	$ 2,959,404	$ 309,748	$ 3,269,152

(1) Includes other single-family Fannie Mae guaranty arrangements of $1.3 billion and $1.6 billion as of December 31, 2019 and 2018, respectively, and other multifamily Fannie Mae guaranty arrangements of $11.3 billion and $12.3 billion as of December 31, 2019 and 2018, respectively. The unpaid principal balance of resecuritized Fannie Mae MBS is included only once in the reported amount.

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

(3) Refers to mortgage loans and mortgage-related securities guaranteed or insured, in whole or in part, by the U.S. government.

(4) Consists of approximately (i) $37.8 billion in unpaid principal balance of Freddie Mac-issued UMBS backing Fannie Mae-issued Supers; and (ii) $12.3 billion in unpaid principal balance of Freddie Mac securities backing Fannie Mae-issued REMICs, a portion of which may be backed in whole or in part by Fannie Mae MBS. Therefore, our total exposure to Freddie Mac securities included in Fannie Mae REMIC collateral is likely lower.

The GSE Act requires us to set aside each year an amount equal to 4.2 basis points of the unpaid principal balance of our new business purchases and to pay this amount to specified HUD and Treasury funds in support of affordable housing. In April 2019, we paid $215 million to the funds based on our new business purchases in 2018. For 2019, we recognized an expense of $280 million related to this obligation based on our $666.9 billion in new business purchases during the period. We expect to pay this amount to the funds in 2020. See "Business—Charter Act and Regulation—GSE Act and Other Legislation—Affordable Housing Allocations" for more information regarding this obligation.

Business Segments

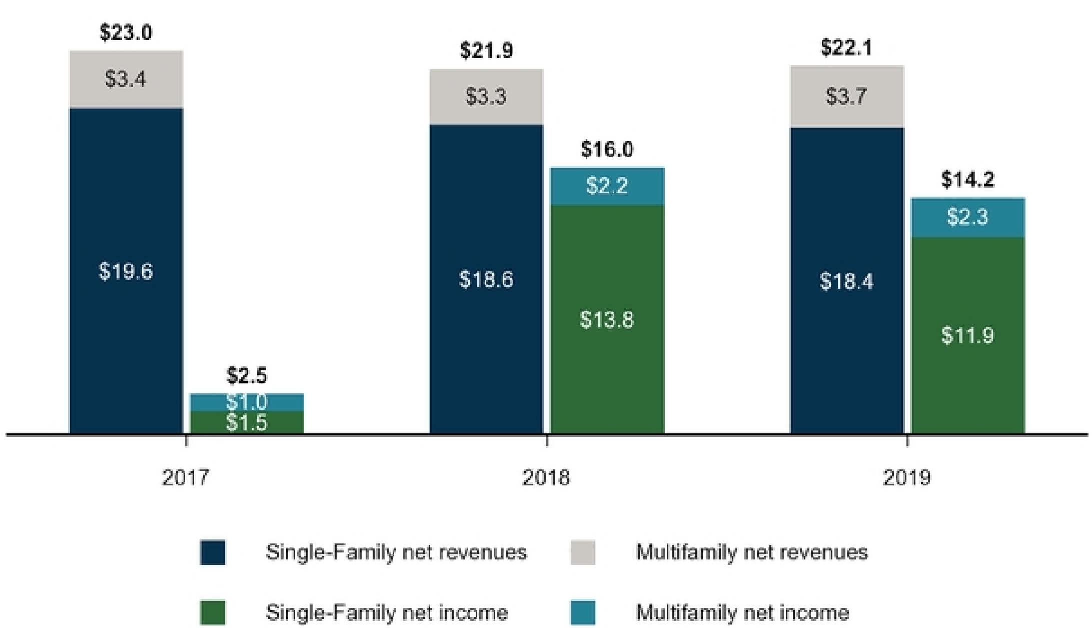
We conduct business in the U.S. residential mortgage markets and the global securities market. According to the Federal Reserve, total U.S. residential mortgage debt outstanding was estimated to be approximately $12.6 trillion as of September 30, 2019 (the latest date for which information is available). We owned or guaranteed mortgage assets representing approximately 26% of total U.S. residential mortgage debt outstanding as of September 30, 2019.

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 net income for each of our business segments. Net revenues consist of net interest income and fee and other income.

Business Segment Net Revenues and Net Income

(Dollars in billions)



Segment Allocation Methodology

The majority of our revenues and expenses are directly associated with either our Single-Family or our Multifamily business segment and are included in determining that segment's operating results. Other revenues and expenses that are not directly attributable to a particular business segment are allocated based on the size of each segment's guaranty book of business. The substantial majority of the gains and losses associated with our risk management derivatives are allocated to our single-family business segment.

In the following sections, we describe each segment's primary business activities, customers, competitive and market conditions, business metrics, and financial results. We also describe how each segment manages mortgage credit risk and its credit metrics.

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—Credit Risk."

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 performance improvement plans and servicing transfers, lost incentive income, compensatory fees, monetary and non-monetary remedies, and reduced opportunity for STAR Program recognition.

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 2019, 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 2019, our top five lender customers, in the aggregate, accounted for approximately 44% of our single-family business volume, compared with approximately 42% in 2018. Wells Fargo Bank, N.A., together with its affiliates, and Quicken Loans Inc., together with its affiliates, were the only customers that accounted for 10% or more of our single-family business volume in 2019, with approximately 14% and 10%, respectively, of our 2019 single-family business volume.

We have a diversified funding base of domestic and international investors. Purchasers of single-family Fannie Mae MBS include asset managers, commercial banks, pension funds, insurance companies, Treasury, central banks, corporations, state and local governments, and other municipal authorities. Our CAS investors include asset managers, real estate investment trusts, hedge funds and insurance companies, while our CIRT transaction counterparties are insurers and reinsurers.

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.

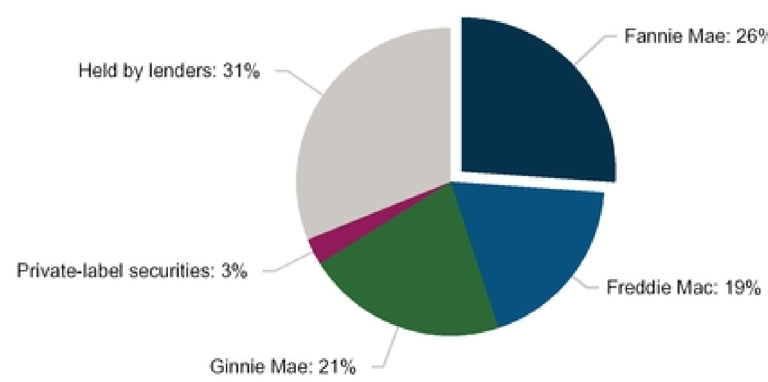
Competition to acquire mortgage assets is significantly affected by both our and our competitors’ pricing and eligibility standards, as well as investor demand for UMBS and for our and our competitors’ other mortgage-related securities. Our competitive environment also may be affected by many other factors, including changes in connection with recommendations in the Treasury plan; other new legislation or regulations applicable to us, our customers or our investors; and digital innovation and disruption in our markets. The Director of FHFA has indicated that, during conservatorship, Fannie Mae and Freddie Mac should reduce competition with each other and FHA. As a result, in order to successfully acquire loans in the secondary market, we focus on understanding what drives our customers’ execution decisions and identifying how to best deliver value. 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. Competition for investors and counterparties in our credit risk transfer transactions comes primarily from other issuers of mortgage credit risk transactions, such as Freddie Mac and private mortgage insurers. We also compete for investor funds against other credit-related securitized products, such as private-label residential mortgage-backed securities (“RMBS”), commercial RMBS, and collateralized loan obligations. 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

Single-Family Mortgage Acquisition Market Share

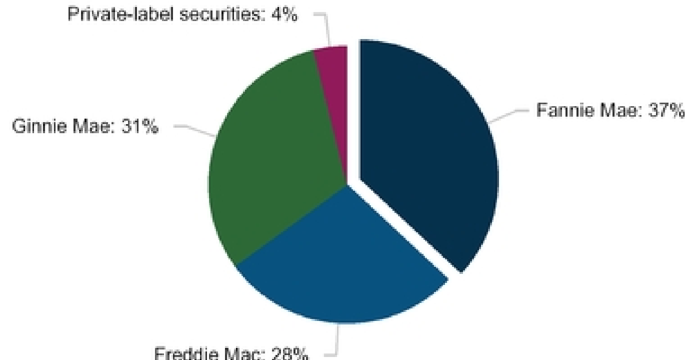
The chart below displays our estimated market share of single-family mortgage acquisitions in 2019 as compared with that of our primary competitors. Our market share estimate is based on publicly available data regarding the amount of single-family first-lien mortgage loans originated and our competitors' acquisitions. Our share of the single-family acquisition market, including loans held on lenders' books, may fluctuate from period to period. We exclude our purchase of delinquent loans from our MBS trusts in the calculation of our market share.



We estimate our market share of single-family mortgage acquisitions was 25% in 2018 and 27% in 2017.

Single-Family Mortgage-Related Securities Issuances Market Share

Single-family Fannie Mae MBS issuances were $591.1 billion in 2019, compared with $470.5 billion in 2018 and $514.0 billion in 2017. Based on the latest data available, the chart below displays our estimated market share of single-family mortgage-related securities issuances in 2019 as compared with that of our primary competitors for the issuance of single-family mortgage-related securities.



We estimate our market share of single-family mortgage-related securities issuances was 39% in both 2018 and 2017.

Single-Family Mortgage Market

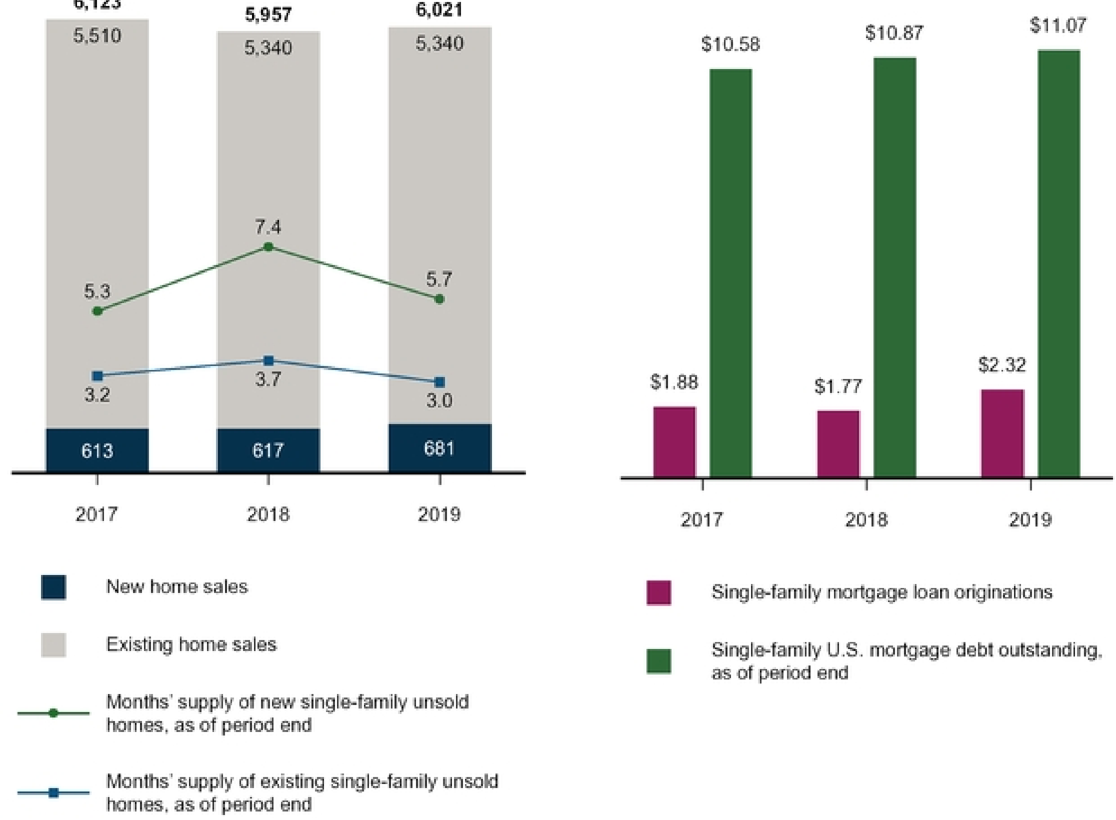
Below we present macroeconomic factors that affect the single-family mortgage market in which our Single-Family business operates. Home sales and the supply of unsold homes are indicators of the underlying demand for mortgage loans, which impacts our acquisition volumes.

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) (3)

(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 has changed to reflect revised historical data from one or both of these organizations.

(2) 2019 information is as of September 30, 2019 and is based on the Federal Reserve's December 2019 mortgage debt outstanding release, the latest date for which the Federal Reserve has estimated mortgage debt outstanding for single-family residences. Prior period amounts have been changed to reflect revised historical data from the Federal Reserve.

(3) We estimate that Fannie Mae's share of total U.S. single-family mortgage debt outstanding was 27% as of the end of both 2019 and 2018, and was 28% as of the end of 2017.

Additional Factors

- The 30-year fixed mortgage rate averaged 3.9% in 2019 compared with 4.5% in 2018 according to Freddie Mac's Primary Mortgage Market Survey®.
- We forecast that total originations in the U.S. single-family mortgage market in 2020 will decrease from 2019 levels by approximately 1.6%, from an estimated $2.32 trillion in 2019 to $2.28 trillion in 2020, and that the amount of originations in the U.S. single-family mortgage market that are refinancings will decrease from an estimated $1,012 billion in 2019 to $895 billion in 2020.

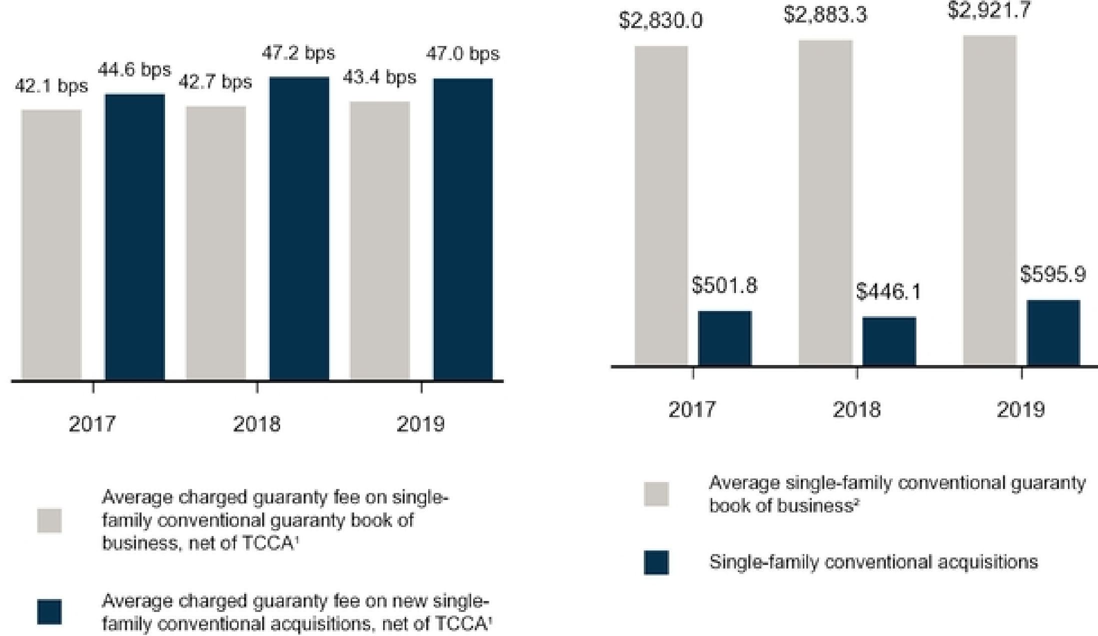
Presentation of our Single-Family Guaranty Book of Business

For purposes of the information reported in this “Single-Family Business” section, we measure the single-family guaranty book of business by using the unpaid principal balance of mortgage loans underlying Fannie Mae MBS outstanding. By contrast, the single-family guaranty book of business presented in the “Composition of Fannie Mae Guaranty Book of Business” table in the “Guaranty Book of Business” section is based on the unpaid principal balance of Fannie Mae MBS outstanding, rather than the unpaid principal balance of the underlying mortgage loans. 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 single-family conventional guaranty book of business was $2,951.9 billion as of December 31, 2019, $2,903.3 billion as of December 31, 2018 and $2,858.9 billion as of December 31, 2017.

Single-Family Business Metrics

Net interest income from guaranty fees for our Single-Family business is driven by the guaranty fees we charge on our single-family conventional guaranty book of business and the size of our single-family conventional guaranty book of business. The guaranty fees we charge are based on the characteristics of the loans we acquire. We adjust our guaranty fees in light of market conditions and to achieve return targets, which are based on FHFA’s conservatorship capital framework. As a result, the average charged guaranty fee on new acquisitions may fluctuate based on the credit quality and product mix of loans acquired, as well as market conditions and other factors.

Single-Family Guaranty Fees, Acquisition and Book of Business Metrics
(Dollars in billions)



(1) Represents the sum of the average guaranty fee rate for our single-family conventional guaranty arrangements during the period plus the recognition of any upfront cash payments relating to these guaranty arrangements over an estimated average life at the time of acquisition. 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.

(2) Our single-family conventional guaranty book of business consists primarily of single-family conventional mortgage loans underlying Fannie Mae MBS outstanding. It also includes single-family conventional mortgage loans of Fannie Mae held in our retained mortgage portfolio, and other credit enhancements that we provide on single-family conventional mortgage assets. Our single-family conventional guaranty book of business does not include: (a) non-Fannie Mae single-family mortgage-related securities held in our retained mortgage portfolio for which we do not provide a guaranty; (b) mortgage loans guaranteed or insured, in whole or in part, by the U.S. government; or (c) Freddie Mac-acquired mortgage loans underlying Freddie Mac-issued UMBS that we have resecuritized.

Our average charged guaranty fee on newly acquired conventional single-family loans, net of TCCA fees, was relatively flat at 47.0 basis points in 2019 compared with 47.2 basis points in 2018.

Single-Family Business Financial Results

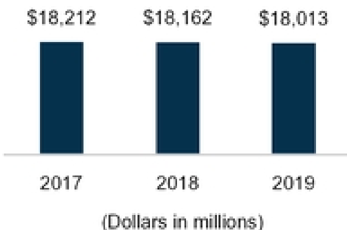
	For the Year Ended December 31,			Variance	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
	(Dollars in millions)				
Net interest income[(1)]	**$ 18,013**	$ 18,162	$ 18,212	$ (149)	$ (50)
Fee and other income	**453**	450	1,378	3	(928)
Net revenues	**18,466**	18,612	19,590	(146)	(978)
Investment gains, net	**1,589**	850	1,352	739	(502)
Fair value gains (losses), net	**(2,216)**	1,210	(1,188)	(3,426)	2,398
Administrative expenses	**(2,565)**	(2,631)	(2,391)	66	(240)
Credit-related income[(2)]	**3,515**	2,709	1,550	806	1,159
TCCA fees[(1)]	**(2,432)**	(2,284)	(2,096)	(148)	(188)
Other expenses, net[(3)]	**(1,661)**	(1,012)	(1,004)	(649)	(8)
Income before federal income taxes	**14,696**	17,454	15,813	(2,758)	1,641
Provision for federal income taxes	**(2,859)**	(3,708)	(14,301)	849	10,593
Net income	**$ 11,837**	$ 13,746	$ 1,512	$ (1,909)	$ 12,234

(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 or provision for credit losses and foreclosed property income or expense.

(3) Consists of credit enhancement and mortgage insurance expenses, debt extinguishment gains and losses, housing trust fund expenses and loan subservicing costs.

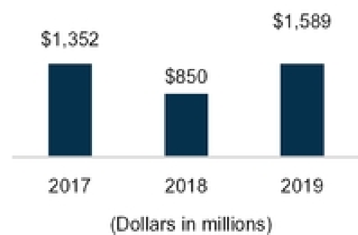
Net interest income



Single-family net interest income decreased slightly in 2019 compared with 2018, primarily due to a decline in net interest income from portfolios partially offset by an increase in single-family base guaranty fee 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.

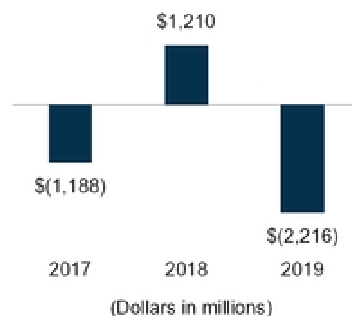
Investment gains, net



Investment gains, net increased during 2019 compared with 2018 primarily driven by an increase in gains on sales of 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.

Fair value gains (losses), net

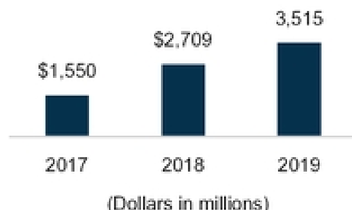


As we discuss more fully in "Consolidated Results of Operations—Fair Value Gains (Losses), Net," fair value losses in 2019 were primarily driven by decreases in the fair value of our pay-fixed risk management derivatives and decreases in the fair value of our commitments to sell mortgage-related securities as a result of decreases in interest rates during the year.

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.

As we discuss in "Consolidated Results of Operations—Fair Value Gains (Losses), Net," we expect that implementing a hedge accounting program will reduce the volatility of our financial results associated with changes in interest rates, while fair value gains and losses driven by other factors such as credit spreads will remain.

Credit-related income



Credit-related income in 2019 was primarily driven by the redesignation of certain single-family loans from HFI to HFS; the result of an enhancement to the model used to estimate cash flows for individually impaired single-family loans within our allowance for loan losses, which incorporated recent loan performance data within the model; and an increase in actual and forecasted home prices.

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.

See "Consolidated Results of Operations—Credit-Related Income" for more information on our credit-related income.

Other expenses, net

Other expenses, net increased in 2019 compared with 2018, primarily due to an increase in credit enhancement costs resulting from higher outstanding volumes of loans covered by a credit risk transfer transaction.

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.

We typically obtain our single-family credit information 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 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 our own assessment of the borrower's credit data, including using trended credit data when available. 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 July 2019, we implemented the following changes to DU:

- *HomeReady® income limits*. To better align with our housing goals, we changed the income limit requirement for HomeReady loans, our flagship affordable product, to set a maximum borrower income limit of 80% of area median income for the property's location. Previously, a borrower could be eligible for a HomeReady loan if the borrower's total annual income did not exceed 100% of area median income or if the property was located in a low-income census tract. We believe this change reduced the proportion of our loan acquisitions consisting of HomeReady loans in the second half of 2019. HomeReady loans consisted of 6.6% of our single-family conventional loan acquisitions in 2019, compared with 7.5% in 2018.
- *DU eligibility assessment*. As part of normal business operations, we regularly review DU to determine whether its risk analysis and eligibility assessment are appropriate based on the current market environment and loan performance information. As a result of our most recent review, we updated the DU eligibility assessment to better align the mix of business delivered to us with the composition of business in the overall market. We expect this change will result in fewer acquisitions of loans with multiple higher-risk characteristics.

We will continue to closely monitor loan acquisitions and market conditions and, as appropriate, seek to make changes in our eligibility criteria so that the loans we acquire are consistent with our risk appetite.

Other Underwriting Standards

DU was used to evaluate over 90% of the single-family loans we acquired in 2019. However, we also 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. The majority of loans we acquired in 2019 that were not underwritten with DU were underwritten through a third-party automated underwriting system, such as Freddie Mac's Loan Product Advisor®.

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 and Representation and Warranty Framework

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, except as described below, 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. We refer to our demands that mortgage sellers and servicers meet these obligations collectively as repurchase requests.

Under our representation and warranty framework, lenders can obtain relief from repurchase liability for violations of certain underwriting representations and warranties. Loans with 36 months of consecutive monthly payments and 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 are able to provide relief from certain loan repurchase requests under our representation and warranty framework because of improvements we made to our quality control process in conjunction with implementing the framework, including moving the primary focus and timing of our loan 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.

We implemented our representation and warranty framework discussed above on January 1, 2013. As of December 31, 2019, approximately 53% of the outstanding loans in our single-family conventional guaranty book of business that were acquired since that date and are subject to this framework have obtained relief based solely on payment history or the satisfactory conclusion of a full-file quality control review, and an additional 45% remain eligible for relief in the future.

In addition, lenders may obtain relief from liability for violations of a more narrow set of representations and warranties through the use of specified underwriting tools. This primarily includes relief for:

- borrower income, asset and employment data that has been validated through DU; and
- appraised property value for appraisals that have received a qualifying risk score in Collateral Underwriter®, our appraisal review tool.

Single-Family Portfolio Diversification and Monitoring

Overview

The composition of our single-family conventional guaranty 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 conventional guaranty book of business includes the following key risk characteristics:

- *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 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. Our underwriting evaluation does not use a credit score directly, but applies our own assessment of the borrower’s credit quality, including using trended credit data, when available.
- *Debt-to-income ratio.* Debt-to-income (“DTI”) ratio refers to the ratio of a borrower’s outstanding debt obligations (including both mortgage debt and certain other long-term and significant short-term debts) to that borrower’s reported or calculated monthly income, to the extent the income is used to qualify for the mortgage. As a borrower’s DTI ratio increases, the associated risk of default on the loan generally increases, especially if other higher-risk factors are present. From time to time, we revise our guidelines for determining a borrower’s DTI ratio. The amount of income reported by a borrower and used to qualify for a mortgage may not represent the borrower’s total income; therefore, the DTI ratios we report may be higher than borrowers’ actual DTI ratios.
- *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 fifth 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. We provide additional information on the credit characteristics of our single-family loans in quarterly financial supplements, which we furnish to the SEC with current reports on Form 8-K. Information in our quarterly financial supplements is not incorporated by reference into this report.

Key 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,		
	2019	**2018**	**2017**	**2019**	**2018**	**2017**
Original LTV ratio:[4]						
<= 60%	**17 %**	16 %	18 %	**19 %**	19 %	20 %
60.01% to 70%	**13**	12	13	**13**	13	14
70.01% to 80%	**37**	37	39	**37**	38	38
80.01% to 90%	**13**	13	12	**12**	12	11
90.01% to 95%	**13**	15	13	**12**	11	10
95.01% to 100%	**7**	7	5	**5**	4	4
Greater than 100%	*****	*	*	**2**	3	3
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Weighted average	**76 %**	77 %	75 %	**76 %**	75 %	75 %
Average loan amount	**$ 259,897**	$ 232,651	$ 226,325	**$ 173,804**	$ 170,076	$ 166,643
Estimated mark-to-market LTV ratio:[5]						
<= 60%				**54 %**	54 %	52 %
60.01% to 70%				**17**	18	18
70.01% to 80%				**16**	16	17
80.01% to 90%				**8**	8	8
90.01% to 100%				**5**	4	4
Greater than 100%				*****	*	1
Total				**100 %**	100 %	100 %
Weighted average				**57 %**	57 %	58 %
Product type:						
Fixed-rate:[6]						
Long-term	**89 %**	90 %	84 %	**85 %**	84 %	80 %
Intermediate-term	**10**	8	13	**13**	14	15
Total fixed-rate	**99**	98	97	**98**	98	95
Adjustable-rate	**1**	2	3	**2**	2	5
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Number of property units:						
1 unit	**98 %**	98 %	97 %	**97 %**	97 %	97 %
2-4 units	**2**	2	3	**3**	3	3
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Property type:						
Single-family homes	**91 %**	90 %	90 %	**91 %**	91 %	91 %
Condo/Co-op	**9**	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,		
	2019	**2018**	**2017**	**2019**	**2018**	**2017**
Occupancy type:						
Primary residence	**92 %**	89 %	89 %	**89 %**	89 %	89 %
Second/vacation home	**4**	5	4	**4**	4	4
Investor	**4**	6	7	**7**	7	7
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
FICO credit score at origination:						
< 620	*** %**	* %	* %	**1 %**	2 %	2 %
620 to < 660	**3**	6	5	**5**	5	5
660 to < 680	**4**	5	5	**5**	5	5
680 to < 700	**7**	9	8	**7**	7	7
700 to < 740	**23**	23	23	**21**	20	20
>= 740	**63**	57	59	**61**	61	61
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Weighted average	**749**	743	745	**746**	746	745
DTI ratio at origination:[7]						
<= 43%	**72 %**	66 %	77 %	**76 %**	77 %	79 %
43.01% to 45%	**9**	9	12	**9**	9	9
Greater than 45%	**19**	25	11	**15**	14	12
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Weighted average	**36 %**	37 %	35 %	**35 %**	35 %	35 %
Loan purpose:						
Purchase	**52 %**	65 %	56 %	**45 %**	43 %	39 %
Cash-out refinance	**20**	22	21	**19**	20	20
Other refinance	**28**	13	23	**36**	37	41
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Geographic concentration:[8]						
Midwest	**14 %**	14 %	14 %	**15 %**	15 %	15 %
Northeast	**13**	14	14	**17**	17	18
Southeast	**22**	23	23	**22**	22	22
Southwest	**21**	21	20	**18**	18	17
West	**30**	28	29	**28**	28	28
Total	**100 %**	100 %	100 %	**100 %**	100 %	100 %
Origination year:						
2013 and prior				**33 %**	40 %	48 %
2014				**5**	6	7
2015				**8**	10	12
2016				**14**	16	18
2017				**12**	15	15
2018				**11**	13	—
2019				**17**	—	—
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) Excludes loans for which this information is not readily available.

(8) 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.

Characteristics of our New Single-Family Loan Acquisitions

The share of our single-family loan acquisitions consisting of refinance loans rather than home purchase loans increased in 2019 compared with 2018, primarily due to a lower interest-rate environment in 2019, which encouraged refinance activity. Typically refinance loans have lower LTV ratios than home purchase loans. This trend contributed to a decrease in the percentage of our single-family loan acquisitions with LTV ratios over 90%—from 22% in 2018 to 20% in 2019. In addition, our acquisitions of loans from first-time home buyers decreased from 27% of our single-family loan acquisitions in 2018 to 23% in 2019.

Our share of acquisitions of loans with DTI ratios above 45% decreased in 2019 compared with 2018. This decrease was driven in part by changes in our eligibility guidelines implemented in December 2018 and July 2019 to further limit risk layering, particularly with respect to loans with DTI ratios above 45%, as well as a higher volume of refinance loan acquisitions.

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;
- the volume and characteristics of high LTV refinance loans we acquire in the future; and
- our future capital requirements.

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 2020 conservatorship scorecard specifies that in 2020 we should support sustainable homeownership and affordable rental housing, fulfilling our housing goals and meeting our duty to serve underserved markets through sustainable mortgage programs and outreach. 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,	
	2019	**2018**
Percentage of single-family conventional guaranty book of business	**5 %**	6 %
Serious delinquency rate	**0.91 %**	0.96 %
Estimated mark-to-market LTV ratio	**61 %**	65 %
Weighted-average FICO credit score at origination	**697**	700

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 $453,100 for 2018, $484,350 for 2019 and increased to $510,400 for 2020. 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,	
	2019	**2018**
Unpaid principal balance (in billions)	**$ 212.0**	$ 202.0
Percentage of single-family conventional guaranty book of business	**7 %**	7 %

Reverse Mortgages

In 2010, we stopped acquiring 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 $21.9 billion as of December 31, 2019 and $27.7 billion as of December 31, 2018. 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, 2019 and 2018.

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. 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 $7.8 billion as of December 31, 2019. During 2019, approximately 63% of these modified loans experienced an interest rate reset to a weighted-average interest rate of 3.48%.

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 conventional 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						
	2020	2021	2022	2023	2024	Thereafter	Total
	(Dollars in millions)						
ARMs—Amortizing	$ 17,398	$ 4,144	$ 5,297	$ 4,160	$ 5,579	$ 9,375	**$ 45,953**
ARMs—Interest-Only and Negative-Amortizing	8,386	125	264	241	6	—	**9,022**
Rate-Reset Modifications	4,268	1,022	764	4	1	—	**6,059**
Fixed-Rate Interest-Only	32	32	13	9	—	1	**87**

(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 information about the loans in our single-family conventional guaranty book of business covered by one or more forms of credit enhancement, including mortgage insurance or a credit risk transfer transaction. For a discussion of our exposure to and management of the institutional counterparty credit risk associated with the providers of these credit enhancements, see "Risk Management—Mortgage Credit Risk Management—Institutional Counterparty Credit Risk Management" and "Note 13, Concentrations of Credit Risk."

Single-Family Loans with Credit Enhancement

	As of December 31,			
	2019		2018	
	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	**$ 653**	**22 %**	$ 618	21 %
Connecticut Avenue Securities	**919**	**31**	798	27
CIRT	**275**	**10**	243	8
Lender risk-sharing	**147**	**5**	102	4
Less: Loans covered by multiple credit enhancements	**(438)**	**(15)**	(394)	(13)
Total single-family loans with credit enhancement	**$ 1,556**	**53 %**	$ 1,367	47 %

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% when we acquire it. We generally achieve this 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.

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 credit risk transfer transactions are designed to transfer a portion of the losses we expect would be incurred in an economic downturn or a stressed credit environment. We continually evaluate our credit risk transfer transactions which, in addition to managing our credit risk, also affect our returns on capital under FHFA's conservatorship capital requirements.

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

- fixed-rate single-family conventional loans with terms greater than 20 years that meet certain additional, minimum criteria;
- 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. 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.

We are also evaluating our seasoned loan portfolio, which includes loans that were initially acquired prior to the start of our CAS and CIRT programs, for inclusion in these transactions. In December 2019 we completed our first CAS transaction that transferred credit risk on loans acquired prior to the implementation of our CAS and CIRT programs, including Refi Plus loans.

In 2019, pursuant to our credit risk transfer transactions, we transferred a portion of the mortgage credit risk on single-family mortgages with an unpaid principal balance of $445 billion at the time of the transactions. As of December 31, 2019, approximately 46% 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.

One way we measure risk is through the conservatorship capital framework, under which our capital requirements associated with our assets are reduced where we have reduced the risk on those assets. Because loans are generally included in credit risk transfer transactions on a lagged basis, we measure the impact of our 2019 credit risk transfer activity by how much it reduced our capital requirements on loans we acquired in 2018. Our single-family credit risk transfer transactions and primary mortgage insurance coverage through December 31, 2019 reduced our conservatorship capital requirement for our covered single-family business activity during the twelve months ended December 31, 2018 by over 80%. See "Business—Charter Act and Regulation—GSE Act and Other Legislation—Capital" for more information on our capital requirements.

Categories of our credit risk transfer transactions

	Transaction Description	Other Key Characteristics
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. • We stopped issuing this form of CAS in October 2018.	• 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. • 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. • Presents minimal counterparty risk as we receive the proceeds that would reimburse us for certain credit events on the related loans upon the issuance of the CAS.
CAS REMIC	CAS REMIC® transactions are similar to CAS transactions, with some key differences: • CAS REMIC offerings are 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 credit losses with the related recovery from CAS REMIC transactions. We will continue to record the expected benefit and the loss in the same period with our adoption of the CECL standard in January 2020. • Beginning with our July 2019 issuances: extended the stated final maturity date from 12.5 to 20 years from issuance, shortened the call option from 10 years to 7 years; and retained a smaller first loss position. These updates were primarily designed to further reduce the capital requirements associated with loans in the reference pool under FHFA's conservatorship capital framework. • Presents minimal counterparty risk as the CAS structure receives the proceeds that would reimburse us for certain credit events on the related loans upon the issuance of the CAS REMIC.

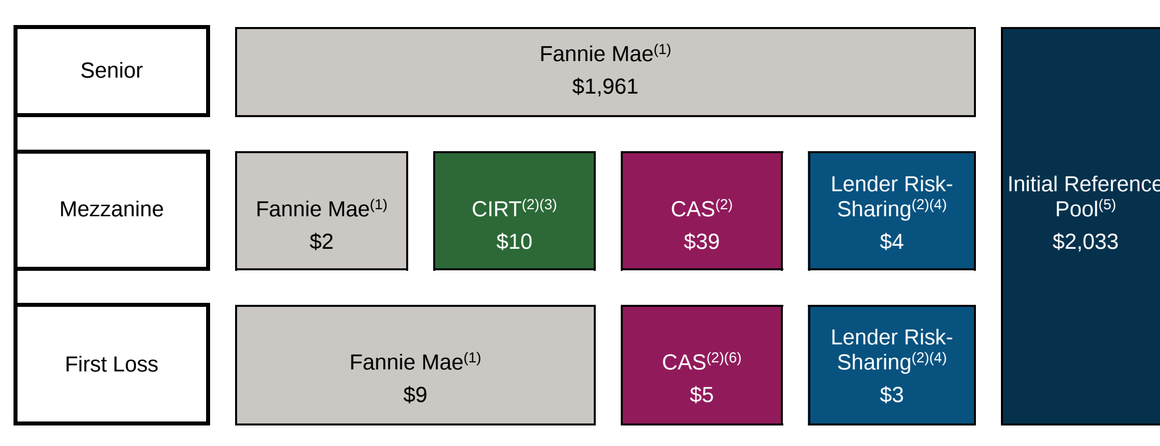
	Transaction Description	Other Key Characteristics
CAS Credit-linked notes ("CLN")	CAS CLN transactions are similar to CAS REMIC transactions, with some key differences: • In December 2019 we began offering CAS CLNs in addition to CAS REMICs. CAS CLNs allow us to obtain credit protection on reference pools containing seasoned loans such as Refi Plus loans. • Since the loans used in our CAS CLNs were not tagged for use in a REMIC transaction at the time of acquisition, CAS CLNs do not qualify as interests in a REMIC. We began taking a REMIC election on the majority of single-family loans beginning May 2018.	• CAS CLNs do not provide as broad of a range of investor participation as CAS REMICs.
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 0.4% 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- or 12-1/2 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 shared 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

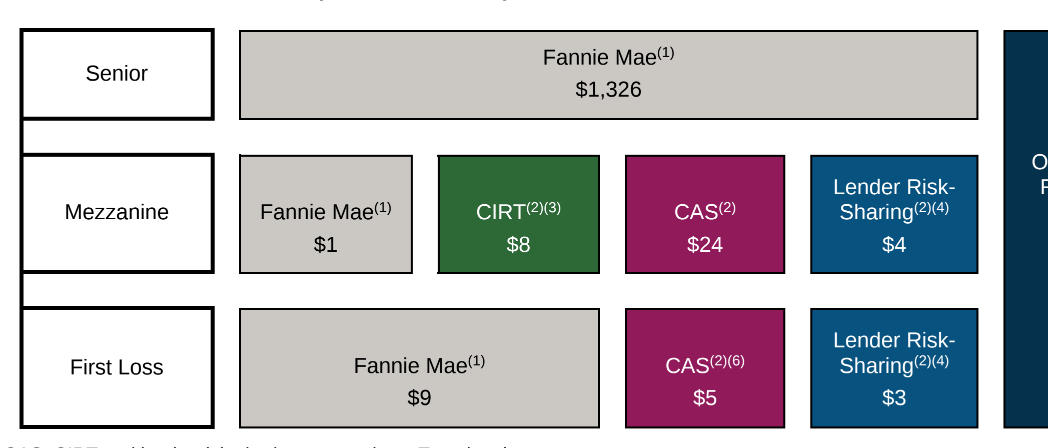
Issuances from Inception to December 31, 2019

(Dollars in billions)



Outstanding as of December 31, 2019

(Dollars in billions)



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

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

(3) Includes mortgage pool insurance transactions covering loans with an unpaid principal balance of approximately $7 billion at issuance and approximately $3 billion outstanding as of December 31, 2019.

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

(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 $1,341 billion as of December 31, 2019.

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 a portion 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 our credit risk transfer transactions so that the principal payment and loss performance of the transactions correspond to the performance of the loans in the underlying reference pools. Losses are applied in reverse sequential order starting with the first loss tranche. Principal repayments may be allocated to reduce the mezzanine amounts outstanding;

however, these payments may be subject to certain lock-out periods and performance triggers in order to build additional credit protection for the senior tranches retained by us. For CAS transactions, all principal payments and losses assigned to the mezzanine tranches are allocated pro rata between the sold notes and the portion we retain, when performance is above a certain threshold. 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, 2019 in the senior and mezzanine tranches are the result of paydowns. Outstanding balances from issuance to December 31, 2019 in the first loss tranches decreased only slightly as the losses allocated to those tranches were insignificant.

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. We expect these expenses will continue to increase as the percentage of our single-family conventional guaranty book of business that is covered by a credit risk transfer transaction increases.

Credit Risk Transfer Transactions

	For the Year Ended December 31,	
	2019	**2018**
Cash paid or transferred for:	**(Dollars in millions)**	
CAS transactions[1]	**$ 981**	$ 888
CIRT transactions	**360**	286
Lender risk-sharing transactions	**285**	141

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

We continually evaluate loans in our single-family guaranty book of business without credit enhancement to determine whether it makes economic sense to include them in a future CAS or CIRT transaction. The following table displays the primary characteristics of the loans in our single-family conventional guaranty book of business currently without credit enhancement.

Single-Family Loans Currently without Credit Enhancement

	As of December 31, 2019	
	Unpaid Principal Balance	**Percentage of Single-Family Conventional Guaranty Book of Business**
	(Dollars in billions)	
Low LTV ratio or short-term[1]	$ 736	25 %
Pre-credit risk transfer program inception[2]	608	20
Recently acquired[3]	287	10
Other[4]	246	8
Less: Loans in multiple categories	(481)	(16)
Total single-family loans currently without credit enhancement	$ 1,396	47 %

(1) Represents loans with an LTV ratio less than or equal to 60% or loans with an original maturity of 20 years or less.

(2) Represents loans that were acquired before the inception of our credit risk transfer programs. Also includes Refi Plus loans.

(3) Represents loans that were recently acquired and have yet to be included in a reference pool.

(4) Includes ARM loans, loans with a combined LTV ratio greater than 97%, non-Refi Plus loans acquired after the inception of our credit risk transfer programs that became 30 or more days delinquent prior to inclusion in a credit risk transfer transaction, and loans that were delinquent as of December 31, 2019.

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 mitigate 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 information, including our credit loss performance and credit loss concentration metrics, loss reserves and TDRs resulting from loan modifications.

Delinquency

The table below displays the delinquency status of loans and changes in the balance of seriously delinquent loans in our single-family conventional guaranty book of business, based on the number of loans. Single-family seriously delinquent loans are loans that are 90 days or more past due or in the foreclosure process.

Delinquency Status and Activity of Single-Family Conventional Loans

	As of December 31,		
	2019	2018	2017
Delinquency status:			
30 to 59 days delinquent	**1.27%**	1.37%	1.63%
60 to 89 days delinquent	**0.35**	0.38	0.50
Seriously delinquent (“SDQ”)	**0.66**	0.76	1.24
Percentage of SDQ loans that have been delinquent for more than 180 days	**49%**	49%	43%
Percentage of SDQ loans that have been delinquent for more than two years	**11**	12	13

	For the Year Ended December 31,		
	2019	2018	2017
Single-family SDQ loans (number of loans):			
Beginning balance	**130,440**	212,183	206,549
Additions	**199,995**	227,199	287,805
Removals:			
Modifications and other loan workouts	**(44,853)**	(99,140)	(76,119)
Liquidations and sales	**(55,472)**	(79,105)	(84,512)
Cured or less than 90 days delinquent	**(117,676)**	(130,697)	(121,540)
Total removals	**(218,001)**	(308,942)	(282,171)
Ending balance	**112,434**	130,440	212,183

Our single-family serious delinquency rate decreased in 2019 primarily driven by improved loan payment performance and the sale of nonperforming loans. Our single-family serious delinquency rate was higher in 2017 due to the impact of the 2017 hurricanes, but resumed its prior downward trend in 2018 because many delinquent borrowers in the affected areas resolved their loan delinquencies by obtaining loan modifications or through resuming payments and becoming current on their loans.

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 and effectiveness of loan modifications and other workouts;
- 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 mark-to-market LTV ratios greater than 100%, 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 4% of our single-family book of business as of December 31, 2019, but constituted 33% of our seriously delinquent single-family loans as of December 31, 2019 and drove 61% of our 2019 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 table below displays the serious delinquency rates for, and the percentage of our total seriously delinquent single-family conventional loans represented by, the specified loan categories. Percentage of book amounts present the unpaid principal balance of loans for each category divided by the unpaid principal balance of our total single-family conventional guaranty book of business. We also include information for our loans in California because the 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,					
	2019			2018		
	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%**	**0.32%**	19%	6%	0.34%
Florida	**6**	**8**	**0.84**	6	10	1.16
Illinois	**4**	**6**	**0.91**	4	5	0.98
New Jersey	**3**	**5**	**1.13**	4	5	1.38
New York	**5**	**8**	**1.18**	5	8	1.40
All other states	**63**	**67**	**0.64**	62	66	0.73
Product type:						
Alt-A[2]	**2**	**9**	**2.95**	2	11	3.35
Vintages:						
2004 and prior	**2**	**20**	**2.48**	3	23	2.69
2005-2008	**4**	**33**	**4.11**	5	39	4.61
2009-2019	**94**	**47**	**0.35**	92	38	0.34
Estimated mark-to-market LTV ratio:						
<= 60%	**54**	**52**	**0.53**	54	48	0.58
60.01% to 70%	**17**	**17**	**0.80**	18	17	0.87
70.01% to 80%	**16**	**14**	**0.75**	16	14	0.90
80.01% to 90%	**8**	**9**	**1.00**	8	10	1.24
90.01% to 100%	**5**	**4**	**0.86**	4	5	1.33
Greater than 100%	*****	**4**	**10.14**	*	6	9.85
Credit enhanced:[3]						
Primary MI & other[4]	**22**	**26**	**0.96**	21	26	1.11
Credit risk transfer[5]	**45**	**16**	**0.27**	39	10	0.24
Non-credit enhanced	**47**	**66**	**0.79**	53	69	0.85

* 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) For a description of our Alt-A loan classification criteria, see “Glossary of Terms Used in this Report.”

(3) 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, 2019 was 53%.

[4] 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.

[5] 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 2009.

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 consistent approach to homeowner communications, loan modifications and other workouts, and when necessary, foreclosures.

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 may 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; or
- 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.

Approximately 32% 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 long-term 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:

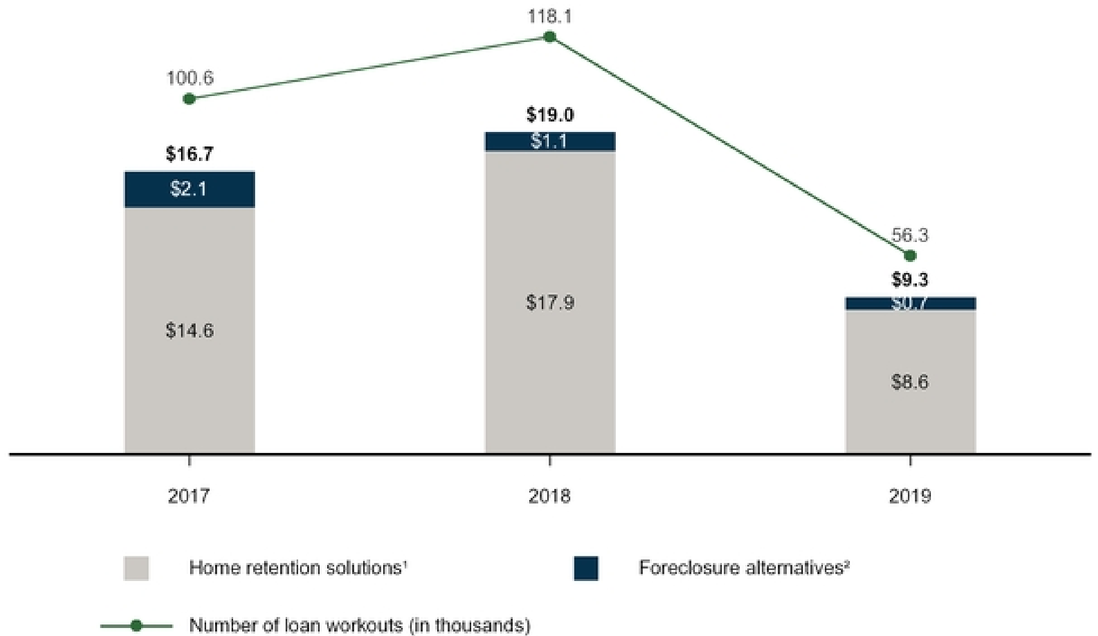
- accept a deed-in-lieu of foreclosure, whereby the borrower voluntarily signs over the title to their property to the servicer, or
- sell the home prior to foreclosure in a short sale, whereby the borrower sells the home for less than the full amount owed to Fannie Mae under the mortgage loan.

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 18,400 loans in a trial modification period as of December 31, 2019.

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

The decrease in home retention solutions in 2019 compared with 2018 was primarily driven by improved loan performance and a decrease in the volume of modifications and forbearances granted, which was elevated in 2018 due to the number of borrowers affected by the 2017 hurricanes.

The table below displays the percentage of our single-family closed loan modifications completed during 2018 and 2017 that were current or paid off one year after modification and, for modifications completed during 2017, two years after modification.

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

	2018				2017			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
One Year Post-Modification	72%	79%	78%	64%	61%	63%	65%	64%
Two Years Post-Modification					72	71	69	70

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 2019, we sold approximately 7,800 nonperforming loans with an aggregate unpaid principal balance of $1.4 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,		
	2019	**2018**	**2017**
Single-family REO properties (number of properties):			
Beginning of period inventory of single-family REO properties[1]	**20,156**	26,311	38,093
Acquisitions by geographic area:[2]			
Midwest	**4,881**	6,107	8,478
Northeast	**4,867**	6,460	9,453
Southeast	**6,360**	7,814	10,860
Southwest	**2,892**	3,713	5,133
West	**1,667**	2,001	2,691
Total REO acquisitions [1]	**20,667**	26,095	36,615
Dispositions of REO	**(23,322)**	(32,250)	(48,397)
End of period inventory of single-family REO properties[1]	**17,501**	20,156	26,311
Carrying value of single-family REO properties (dollars in millions)	**$ 2,290**	$ 2,503	$ 3,112
Single-family foreclosure rate[3]	**0.12 %**	0.15 %	0.21 %
REO net sales prices to unpaid principal balance[4]	**78 %**	77 %	75 %
Short sales net sales price to unpaid principal balance[5]	**78 %**	77 %	75 %

(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 8 to the "Key Risk Characteristics of Single-Family Conventional Business Volume and Guaranty Book of Business" table for states included in each geographic region.

(3) Reflects 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 conventional 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.

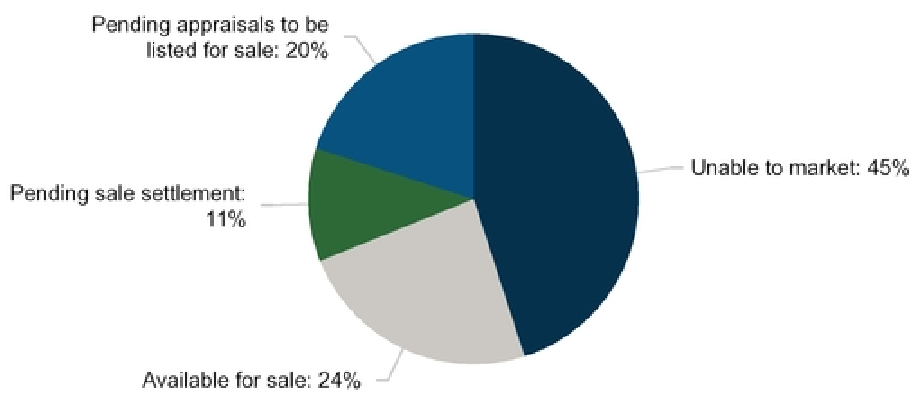
(5) Calculated as the amount of sale proceeds received on properties sold in short sale transactions during the respective periods divided by the aggregate unpaid principal balance of the related loans. Net sales price includes borrower relocation incentive payments and subordinate lien(s) negotiated payoffs.

The decrease in single-family REO properties in 2019 compared with 2018 and 2017 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 2018 and 2019.

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

Single-Family Credit Loss Performance and Credit Loss 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, net of recoveries. The table below displays the components of our single-family credit loss performance metrics, as well as our single-family initial charge-off severity rate.

Our credit loss 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 loss performance metrics may be useful to investors because they are presented as a percentage of our conventional guaranty book of business and have historically been used by analysts, investors and other companies within the financial services industry.

Single-Family Credit Loss Performance Metrics

	For the Year Ended December 31,					
	2019		2018		2017	
	Amount	Ratio[1]	Amount	Ratio[1]	Amount	Ratio[1]
	(Dollars in millions)					
Charge-offs, net of recoveries	**$ (1,196)**	**4.1 bps**	$ (1,853)	6.4 bps	$ (2,423)	8.3 bps
Foreclosed property expense	**(523)**	**1.8**	(604)	2.1	(540)	1.9
Credit losses and credit loss ratio	**$ (1,719)**	**5.9 bps**	$ (2,457)	8.5 bps	$ (2,963)	10.2 bps
Single-family initial charge-off severity rate[2]		**7.7 %**		11.0 %		15.3 %

(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) Credit losses on single-family loans initially charged off during the period divided by the average defaulted unpaid principal balance of those loans. The initial charge-off event is defined as the earliest of (1) when the loan is charged off pursuant to the provisions of the Advisory Bulletin, or (2) when there is a short sale, deed-in-lieu of foreclosure, or foreclosure of the underlying collateral. This severity rate does not reflect the charge-off of loans upon redesignation from HFI to HFS or any gains or losses associated with subsequent events, such as REO transactions that occur after we acquire the property.

Our single-family credit losses and credit loss ratio decreased in 2019 compared with 2018, primarily driven by lower charge-off expenses on lower volumes of reperforming and nonperforming loan redesignations and continued home price appreciation.

Our single-family initial charge-off severity rate declined in 2019 compared with 2018 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]		Percentage of Single-Family Credit Losses[2]	
	As of December 31,		As of December 31,	
	2019	2018	2019	2018
Geographical distribution:				
California	**19%**	19%	**9%**	11%
Florida	**6**	6	**12**	12
Illinois	**4**	4	**10**	10
New Jersey	**3**	4	**10**	10
New York	**5**	5	**9**	8
All other states	**63**	62	**50**	49
Select higher-risk products:				
Alt-A loans	**2**	2	**17**	22
Vintages:[3]				
2004 and prior	**2**	3	**12**	14
2005 - 2008	**4**	5	**61**	66
2009 - 2019	**94**	92	**27**	20

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

The majority of our credit losses in 2019 continued to be driven by loans originated in 2005 through 2008. However, these loans accounted for the majority of the decrease in our credit losses in 2018 compared with 2019. As a result, the percentage of overall credit losses driven by loans originated in more recent years increased, to 27% in 2019 from 20% in 2018, even as the amount of credit losses from these loans decreased.

Single-Family Loss Reserves

Our single-family loss reserves, which includes our allowance for loan losses and reserve for guaranty losses, 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,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
Changes in loss reserves:					
Beginning balance	**$ (14,007)**	$ (19,155)	$ (23,639)	$ (28,325)	$ (36,383)
Benefit for credit losses	**4,038**	3,313	2,090	2,092	688
Charge-offs[1]	**1,313**	2,176	2,868	3,323	9,822
Recoveries	**(117)**	(323)	(445)	(638)	(1,256)
Other	**(6)**	(18)	(29)	(91)	(1,196)
Ending balance	**$ (8,779)**	$ (14,007)	$ (19,155)	$ (23,639)	$ (28,325)
Loss reserves as a percentage of single-family:					
Guaranty book of business	**0.30%**	0.49%	0.65%	0.83%	1.00%
Recorded investment in nonaccrual loans	**30.58**	44.24	40.80	53.67	58.02
Certain higher risk loan categories as a percentage of single-family loss reserves:					
2005-2008 loan vintages	**72%**	76%	78%	81%	81%
Alt-A loans	**21**	20	22	23	23

[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

We modify loans as part of our home retention strategy. The majority of these loans, including trial modifications and loans to certain borrowers who received bankruptcy relief, are classified as TDRs. 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,		
	2019	2018	2017
	(Dollars in millions)		
Beginning balance	**$ 123,951**	$ 143,843	$ 165,960
New TDRs	**8,319**	14,867	9,847
Foreclosures[1]	**(1,794)**	(2,446)	(3,519)
Payoffs and other reductions	**(28,538)**	(32,313)	(28,445)
Ending balance	**$ 101,938**	$ 123,951	$ 143,843

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

The decrease in new TDRs in 2019 compared with 2018 was primarily driven by improved loan performance and a decrease in the volume of modifications and other forms of loss mitigation which were elevated in 2018 due to the number of borrowers affected by hurricanes in 2017.

In addition, we had single-family HFS loans classified as TDRs with an unpaid principal balance of $2.0 billion as of December 31, 2019, $2.1 billion as of December 31, 2018 and $2.6 billion as of December 31, 2017.

The tables below display the single-family loans classified as TDRs that were on accrual status and single-family loans on nonaccrual status. The tables include the recorded investment in our single-family HFI and HFS mortgage loans, as well as interest income forgone and recognized for on-balance sheet TDRs on accrual status and nonaccrual loans. For information on the impact of TDRs and other individually impaired loans on our allowance for loan losses, see "Note 3, Mortgage Loans." For information related to our accounting policy for nonaccrual loans, see "Note 1, Summary of Significant Accounting Policies."

Single-Family TDRs on Accrual Status and Nonaccrual Loans

	As of December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(Dollars in millions)				
TDRs on accrual status	**$ 81,634**	$ 98,320	$ 110,043	$ 127,353	$ 140,588
Nonaccrual loans	**28,708**	31,658	46,945	44,047	48,821
Total TDRs on accrual status and nonaccrual loans	**$ 110,342**	$ 129,978	$ 156,988	$ 171,400	$ 189,409
Accruing on-balance sheet loans past due 90 days or more[1]	**$ 191**	$ 228	$ 353	$ 402	$ 499

	For the Year Ended December 31,				
	2019	**2018**	**2017**	**2016**	**2015**
	(Dollars in millions)				
Interest related to on-balance sheet TDRs on accrual status and nonaccrual loans:					
Interest income forgone[2]	**$ 1,524**	$ 2,000	$ 3,009	$ 4,102	$ 5,193
Interest income recognized[3]	**4,513**	5,292	5,705	5,996	6,493

(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. We also continue to invest 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. Borrowers are typically single-asset entities, with the property as their only asset. The ultimate owners of a multifamily borrower are referred to as the borrower's "sponsors." We evaluate both the borrowing entity and its sponsor when considering a new

transaction or managing our business. In this report, we refer to both the borrowing entities and their sponsors as "borrowers." 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 2019, 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 $12 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. This is in contrast to single-family loans, which typically do not have prepayment protection.

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. Based on a given loan's unique characteristics and Fannie Mae's pre-published delegation criteria, lenders assess whether a loan must be reviewed by Fannie Mae. If review is required, Fannie Mae's internal credit team will assess the loan's risk profile to determine if it meets our risk tolerances. 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 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 through our back-end credit risk transfer transactions.
- 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 2019 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). In February 2019, we expanded our parameters for small multifamily loans to cover loans of up to $6 million in any area. As of December 31, 2019, small loans represented 48% of our multifamily guaranty book of business by loan count and 8% based on unpaid principal balance.
- To serve low- and very low-income households, we have a team that focuses exclusively on relationships with lenders financing privately-owned multifamily properties that receive public subsidies in exchange for maintaining long-term affordable rents. We enable borrowers to leverage housing programs and subsidies provided by local, state and federal agencies. These public subsidy programs are largely targeted to 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, 2019, affordable loans represented approximately 11% of our multifamily guaranty book of business, based on unpaid principal balance, including $10.2 billion in bond credit enhancements.

Multifamily Customers

Our multifamily lenders are principally mortgage banking companies, large diversified financial institutions, and banks. During 2019, we executed multifamily transactions with 30 lenders. During 2019, our top five multifamily lender customers, in the aggregate, accounted for approximately 48% of our multifamily business volume, compared with approximately 49% in 2018. Two of our customers each accounted for 10% or more of our multifamily business volume in 2019. Walker & Dunlop accounted for 12% and CBRE Multifamily Capital accounted for 10% of our 2019 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. Our MCAS investors include fund managers, hedge funds and insurance companies, while we engage in multifamily CIRT transactions with insurers and reinsurers.

Multifamily Competition

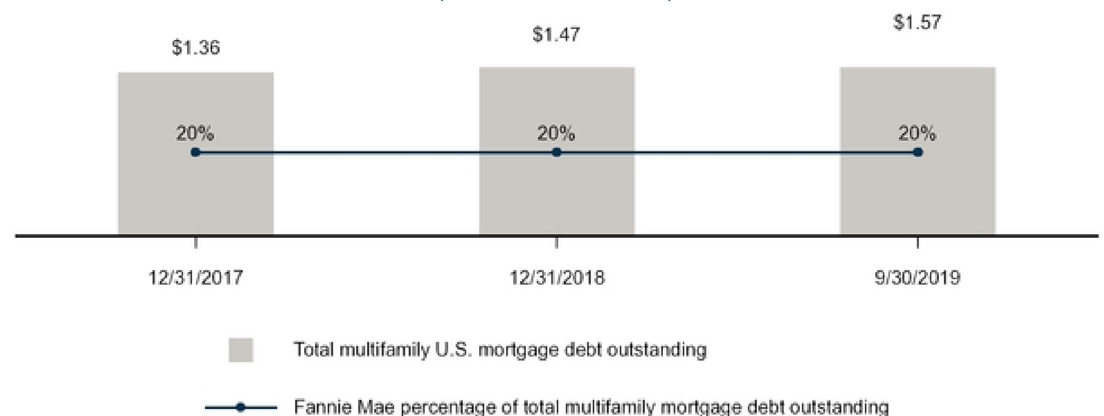
Our primary competitors for the acquisition of multifamily mortgage assets and issuance of multifamily mortgage-related securities are Freddie Mac, life insurers, U.S. banks and thrifts, other institutional investors, Ginnie Mae and private-label issuers of commercial mortgage-backed securities.

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, including changes in connection with recommendations in the Treasury plan; new legislation or regulations applicable to us, our customers or investors; and digital innovation and disruption in our markets. The Director of FHFA has indicated that, during conservatorship, Fannie Mae and Freddie Mac should reduce competition with each other and FHA. As a result, our ability to compete depends on our pricing and on our ability to address and adapt to changing lender and borrower preferences. 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 2019. We owned or guaranteed approximately 20% of the outstanding debt on multifamily properties as of September 30, 2019 (the latest date for which information is available).

Multifamily Mortgage Debt Outstanding[1]



(1) The mortgage debt outstanding as of September 30, 2019 is based on the Federal Reserve's December 2019 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 updated to reflect revised historical data from the Federal Reserve.

Multifamily Mortgage Market

National multifamily market fundamentals, primarily vacancy rates and rents, remained positive throughout 2019, most likely due to ongoing job growth, favorable demographic trends, and renter household formations.

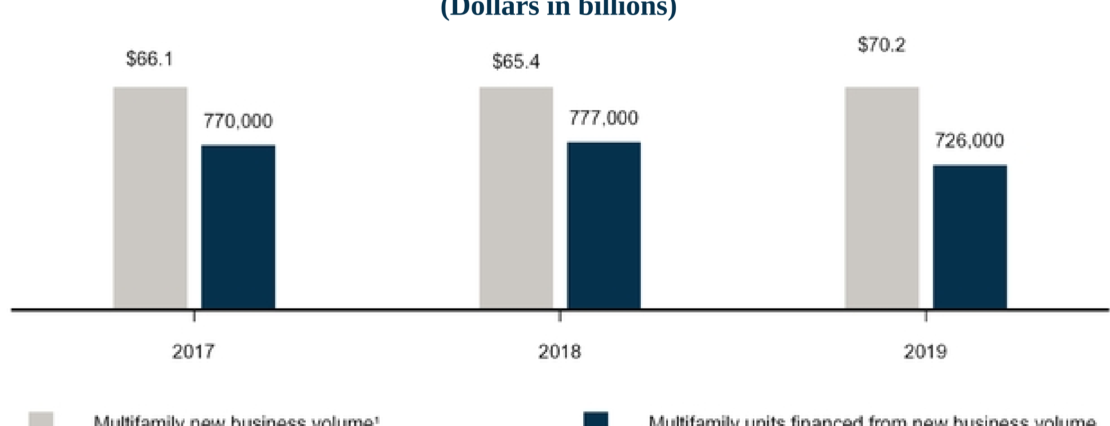
- *Vacancy rates.* According to preliminary third-party data, the estimated national multifamily vacancy rate for institutional investment-type apartment properties was 5.5% as of December 31, 2019, compared with 5.3% as of September 30, 2019 and 5.5% as of December 31, 2018. The estimated national multifamily vacancy rate remains below its average rate of about 6.0% over the last 10 years.
- *Rents.* Effective rents continued to increase during most of 2019. National asking rents increased by an estimated 2.5% in 2019 and by an estimated 0.3% during the fourth quarter of 2019, compared with an estimated increase of 0.8% in the third quarter of 2019.

An estimated 377,000 multifamily units were added to the nation's inventory in 2019 and demand remained positive 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 178,000 units in 2019, according to data from Reis, Inc., compared with approximately 236,000 units in 2018.

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 2019. It is estimated that approximately 476,000 new multifamily units will be completed in 2020. The bulk of this new supply is concentrated in a limited number of metropolitan areas. Although multifamily fundamentals remain positive, we believe an increase in supply will result in a slowdown in national net absorption rates and effective rents in 2020 compared with recent years.

Multifamily Business Metrics

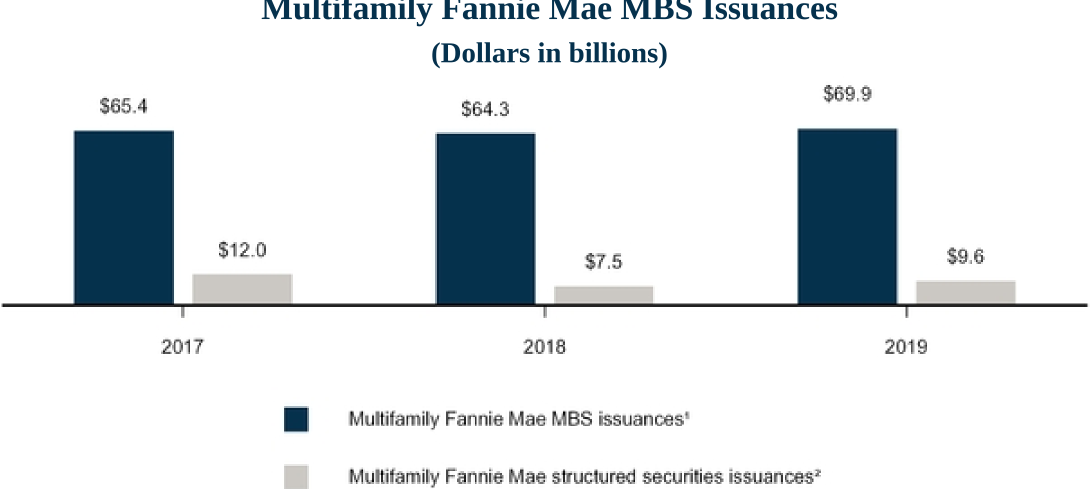
The multifamily loans we acquired in 2019 had a strong overall credit risk profile, consistent with our acquisition policy and standards, which we describe in "Multifamily Mortgage Credit Risk Management—Multifamily Acquisition Policy and Underwriting Standards." For the three-month period starting October 1, 2019 through December 31, 2019, our multifamily business volume was $18.1 billion, which contributed to overall 2019 business volume of $70.2 billion. Multifamily new business volume increased in 2019 compared with 2018 driven by positive multifamily mortgage market fundamentals.



(1) Reflects unpaid principal balance of multifamily Fannie Mae MBS issued, multifamily loans purchased, and credit enhancements provided on multifamily mortgage assets 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.

FHFA's 2019 conservatorship scorecard included an objective to maintain the dollar volume of new multifamily business at or below $35 billion for the year, excluding certain targeted affordable and underserved market business segments such as loans financing energy or water efficiency improvements. Approximately 44% of our multifamily new business volume of $52.1 billion for the first nine months of 2019 counted toward FHFA's 2019 multifamily volume cap. On September 13, 2019, FHFA announced a revised multifamily business volume cap structure. The new multifamily volume cap, which replaced the prior cap effective October 1, 2019, is $100 billion for the five-quarter period ending December 31, 2020. The new cap applies with no exclusions. In addition, FHFA directed that 37.5% of our multifamily business during that time period must be mission-driven, affordable housing, pursuant to FHFA's guidelines for mission-driven loans.

Our multifamily business securitizes the vast majority of mortgage loans we acquire through lender swap transactions. We also support liquidity in the market through issuing structured MBS backed by Fannie Mae MBS.



(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 be backed by Fannie Mae MBS issued during the same period and held by Fannie Mae. Structured securities backed by Fannie Mae MBS held by a third party are not included in the multifamily Fannie Mae MBS structured security issuance amounts.

Presentation of our Multifamily Guaranty Book of Business

For purposes of the information reported in this “Multifamily Business” section, we measure our multifamily guaranty book of business by using the unpaid principal balance of mortgage loans underlying Fannie Mae MBS. By contrast, the multifamily guaranty book of business presented in the “Composition of Fannie Mae Guaranty Book of Business” table in the “Guaranty Book of Business” section is based on the unpaid principal balance of Fannie Mae MBS outstanding, rather than the unpaid principal balance of the underlying mortgage loans. 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 our multifamily guaranty book of business.

Multifamily Guaranty Book of Business
(Dollars in billions)

Our average charged multifamily guaranty fee trended downward in 2018 and 2019 driven by competitive market pressure on guaranty fees charged on newly acquired multifamily loans.

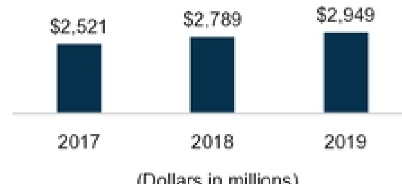
Multifamily Business Financial Results

	For the Year Ended December 31,			Variance	
	2019	2018	2017	2019 vs. 2018	2018 vs. 2017
	(Dollars in millions)				
Net interest income	**$ 2,949**	$ 2,789	$ 2,521	$ 160	$ 268
Fee and other income	**723**	529	849	194	(320)
Net revenues	**3,672**	3,318	3,370	354	(52)
Fair value gains (losses), net	**2**	(89)	(23)	91	(66)
Administrative expenses	**(458)**	(428)	(346)	(30)	(82)
Credit-related expense[1]	**(19)**	(17)	(30)	(2)	13
Other expenses, net[2]	**(316)**	(139)	(337)	(177)	198
Income before federal income taxes	**2,881**	2,645	2,634	236	11
Provision for federal income taxes	**(558)**	(432)	(1,683)	(126)	1,251
Net income	**$ 2,323**	$ 2,213	$ 951	$ 110	$ 1,262

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

(2) Consists of investment gains or losses, gains or losses from partnership investments and other income or expenses.

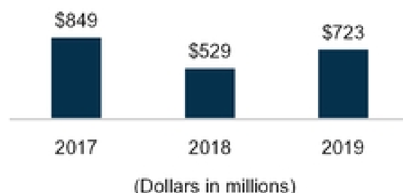
Net interest income



Multifamily net interest income increased in 2019 compared with 2018 primarily due to an increase in guaranty fee income as a result of growth in the size of our multifamily guaranty book of business, partially offset by a decrease in average charged guaranty fees on the multifamily guaranty book.

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.

Fee and other income



Fee and other income increased in 2019 primarily driven by yield maintenance fees resulting from increased prepayment activity.

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, which is recognized in fee and other income. If Fannie Mae is not the holder of the security, the portion of yield maintenance paid out to the investor is recognized as an expense in other expenses, net.

Fair value gains (losses), net

Depending on portfolio activity, our multifamily mortgage commitment derivatives may be in a net buy or net sell position during any given period. Fair value gains in 2019 were flat as a result of offsetting gains and losses on commitments to buy or to sell multifamily mortgage-related securities.

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.

Credit-related expense

We recognized higher credit-related expense in 2019 compared with 2018 primarily driven by an increase in the allowance for loan losses in 2019. Credit-related expense in 2018 was driven by expenses on previously charged-off loans.

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.

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. Our underwriting standards generally include, among other things, property cash flow analysis and third-party appraisals. Additionally, 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. 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, which assumes both principal and interest payments, rather than the actual debt service payments. Depending on the loan's interest rate and structure, using the underwritten debt service payments may result in a more conservative estimate of the debt service payments (for example, loans with an interest-only period). This approach is used for all loans, including those with full and partial interest-only terms. Our experience has been that original LTV ratio and DSCR values have been reliable indicators of future credit performance.

Key Risk Characteristics of Multifamily Guaranty Book of Business

	As of December 31,		
	2019	**2018**	**2017**
Weighted-average original LTV ratio	**66%**	66%	67%
Original LTV ratio greater than 80%	**1%**	1%	2%
Original DSCR less than or equal to 1.10	**11%**	12%	14%
Full interest-only loans	**27%**	24%	21%
Partial interest-only loans[1]	**51%**	49%	46%

[1] Consists of mortgage loans that were underwritten with an interest-only term, regardless of whether the loan is currently in its interest-only period.

We provide additional information on the credit characteristics of our multifamily loans in quarterly financial supplements, which we furnish to the SEC with current reports on Form 8-K. Information in our quarterly financial supplements is not incorporated by reference into this report.

Transfer of Multifamily Mortgage Credit Risk

Lender risk-sharing is a cornerstone of our Multifamily business. We primarily transfer risk through our Delegated Underwriting Servicing ("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 throughout the life of the loan. Our DUS model typically results in our lenders sharing 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 serviced by DUS lenders and their affiliates represented 99% of our multifamily guaranty book of business as of December 31, 2019, 2018 and 2017. In certain situations, to effectively manage our counterparty risk, we do not allow the lender to fully share in one-third of the credit risk, but have them share in a smaller portion.

While not a large portion of our multifamily guaranty book of business, our non-DUS lenders typically also have lender risk-sharing, where the 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, 2019 and as of December 31, 2018.

Percentage of Multifamily Guaranty Book of Business with Front-End Lender Risk Sharing

To complement our front-end lender-risk sharing program through our DUS model, we engage in back-end credit risk transfer transactions through our multifamily CIRT and Multifamily Connecticut Avenue Securities ("MCAS") transactions. In our multifamily CIRT transactions 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. We completed three multifamily CIRT transactions in 2019, which covered multifamily loans with an unpaid principal balance of $32.3 billion at the time of the transactions.

In the fourth quarter of 2019, we issued our first MCAS, which used a credit-linked note structure to transfer a portion of the mortgage credit risk associated with Fannie Mae losses on a reference pool of multifamily mortgage loans. MCAS are issued with a stated final maturity date less than or equal to 12 years. Similar to CIRT transactions, we retained the exposure from senior loss and the first loss tranches in this transaction. In addition, we retained a pro rata share of risk equal to approximately 5% of all notes sold in the mezzanine tranches. Similar to our single-family CAS REMIC and CAS CLNs, MCAS aligns the timing of our recognition of provisions for credit losses with the related recovery. With our adoption of the CECL standard in January 2020, we continue to record the expected benefit and the loss in the same period.

The table below displays the total unpaid principal balance and percentage of loans in our multifamily guaranty book of business that are covered by a back-end credit risk transfer transaction. The table does not reflect front-end lender risk-sharing arrangements.

Multifamily Loans in Back-End Credit Risk Transfer Transactions

	As of December 31,			
	2019		2018	
	Unpaid Principal Balance	Percentage of Multifamily Guaranty Book of Business	Unpaid Principal Balance	Percentage of Multifamily Guaranty Book of Business
	(Dollars in millions)			
Credit Insurance Risk Transfer	**$ 66,851**	**20%**	$ 37,456	12%
Multifamily Connecticut Avenue Securities	**17,077**	**5**	—	—
Total unpaid principal balance of multifamily loans in back-end credit risk transfer transactions	**$ 83,928**	**25%**	$ 37,456	12%

The enhancements to our multifamily credit-risk sharing transactions were primarily designed to further reduce the capital requirements associated with loans in the reference pool under FHFA's conservatorship capital framework with the associated benefit of additional credit risk protection in the event of a stress environment. We transfer multifamily credit risk through lender risk sharing at the time of acquisition, but our multifamily back-end credit risk transfer activity occurs later, typically up to a year or more after acquisition. Accordingly, we measure the impact of our 2019 credit risk transfer activity by how much it

reduced our capital requirements on loans we acquired in 2018. Our multifamily front-end lender risk sharing and back-end credit risk transfer transactions through December 31, 2019 reduced our conservatorship capital requirement for our multifamily business acquisitions during the twelve months ended December 31, 2018 by over 70%. See “Business—Charter Act and Regulation—GSE Act and Other Legislation—Capital” for more information on our capital requirements.

We plan to continue to transfer credit risk through multifamily CIRT and MCAS 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, loan size, and credit enhancement coverage are important factors that influence credit performance and may help reduce our credit risk.

As part of our ongoing credit risk management process, 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 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, 2019 and 2018. Our estimates of current DSCRs are based on the latest available income information for these properties and exclude co-op loans. 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.

In addition to the factors described above, 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 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.

The percentage of our multifamily loans categorized as substandard based on these characteristics remained at historically low levels and decreased as of December 31, 2019 compared with December 31, 2018. Substandard loans are loans that have a well-defined weakness that could impact the timely full repayment. While the vast majority of the substandard loans in our multifamily guaranty book of business are currently making timely payments, we continue to monitor the performance of the full substandard loan population.

Multifamily Problem Loan Management and Foreclosure Prevention

We periodically refine our underwriting standards in response to market conditions and implement proactive portfolio management and monitoring which are each designed to keep credit losses and delinquencies to a low level relative to our multifamily guaranty book of business.

Delinquency Statistics on our Problem Loans

The multifamily serious delinquency rate remained at low levels of 0.04% as of December 31, 2019 and 0.06% as of December 31, 2018. Our multifamily seriously delinquent rate consists of multifamily loans that were 60 days or more past due based on unpaid principal balance expressed as a percentage of our multifamily guaranty book of business.

Multifamily Credit Loss Performance Metrics

The amount of credit loss or income we realize in a given period is driven by foreclosures, pre-foreclosure sales, REO activity and charge-offs, net of recoveries. Our credit loss 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 our credit loss performance metrics may be useful to investors because they have historically been used by analysts, investors and other companies within the financial services industry.

The table below displays the components of our multifamily credit loss performance metrics, as well as our multifamily initial charge-off severity rate. Our multifamily guaranty book of business has experienced very low levels of charge-offs in the past several years, which in some periods has resulted in credit income rather than losses, and drives variability in our charge-off severity rate.

Multifamily Credit Loss Performance Metrics

	For the Year Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Credit income (losses)[1]	**$ 4**	$ (17)	$ 19
Credit (income) loss ratio[1][2]	**(0.1) bps**	0.6 bps	(0.7) bps
Multifamily initial charge-off severity rate[3]	**21.6 %**	17.1 %	4.5 %
Multifamily loan charge-off count	**5**	11	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, which includes our allowance for loan losses and our reserve for guaranty losses for multifamily loans.

Multifamily Loss Reserves

	For the Year Ended December 31,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
Changes in loss reserves:					
Beginning balance	**$ (245)**	$ (245)	$ (196)	$ (265)	$ (404)
Benefit (provision) for credit losses	**(27)**	(4)	(49)	63	107
Charge-offs	**8**	4	3	11	42
Recoveries	**(4)**	—	(3)	(6)	(4)
Other	**—**	—	—	1	(6)
Ending balance	**$ (268)**	$ (245)	$ (245)	$ (196)	$ (265)
Loss reserves as a percentage of multifamily guaranty book of business	**0.08%**	0.08%	0.09%	0.08%	0.12%

Troubled Debt Restructurings and Nonaccrual Loans

The table below displays the 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, as well as interest income forgone and recognized for on-balance sheet TDRs on accrual status and nonaccrual 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,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
TDRs on accrual status	**$ 66**	$ 55	$ 87	$ 141	$ 376
Nonaccrual loans	**439**	492	424	403	591
Total TDRs on accrual status and nonaccrual loans	**$ 505**	$ 547	$ 511	$ 544	$ 967

	For the Year Ended December 31,				
	2019	2018	2017	2016	2015
	(Dollars in millions)				
Interest related to on-balance sheet TDRs on accrual status and nonaccrual loans:					
Interest income forgone[1]	**$ 16**	$ 22	$ 17	$ 21	$ 34
Interest income recognized[2]	**3**	3	7	9	18

[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. Primarily includes amounts accrued while the loans were performing.

REO Management

The number of multifamily foreclosed properties held for sale remained low at 12 properties with a carrying value of $72 million as of December 31, 2019, compared with 16 properties with a carrying value of $81 million as of December 31, 2018.

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 other investments portfolio, 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;
- 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; and
- tax refunds from the IRS.

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 or changes to the senior preferred stock purchase agreement;
- loss of demand for our debt, or certain types of our debt from a significant number 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.

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 expected 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, 2019, 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" 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 could be difficult or impossible to execute under stressed conditions for a company of our size in our circumstances. See "Risk Factors—Liquidity and Funding Risk" 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. In addition to MBS issuances, we fund our business through the issuance of a variety of short-term and long-term debt securities in the domestic and international capital markets. Accordingly, 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, our capital management, 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.

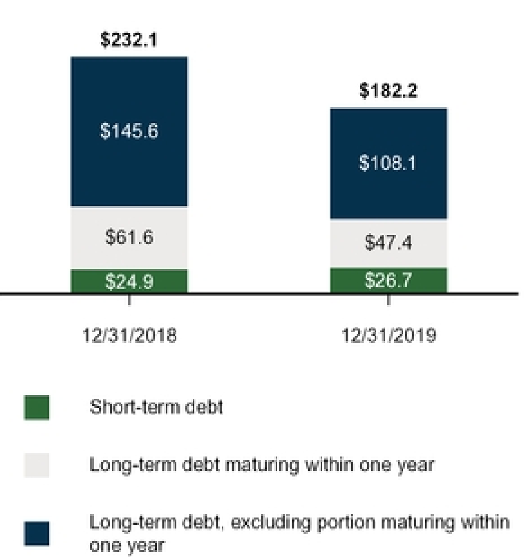
Pursuant to the terms of the senior preferred stock purchase agreement, we are prohibited from issuing debt without the prior consent of Treasury if it would result in our aggregate indebtedness exceeding our outstanding debt limit. Prior to 2019, our debt limit under the senior preferred stock purchase agreement was subject to annual reductions. However, beginning in 2019, the limit is fixed at $300 billion. As of December 31, 2019, our aggregate indebtedness totaled $182.2 billion. The calculation of our indebtedness for purposes of complying with our debt limit reflects the unpaid principal balance and excludes debt basis adjustments and debt of consolidated trusts. Because of our debt limit, we may be restricted in the amount of debt we issue to fund our operations.

Outstanding Debt

Total outstanding debt of Fannie Mae includes short-term and long-term debt and excludes 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 2019 primarily due to the decline in the size of our retained mortgage portfolio. We did not issue new debt to replace all of our debt that paid off during 2019.

Debt of Fannie Mae (1)
(Dollars in billions)



Selected Debt Information

	As of December 31,	
	2018	**2019**
	(Dollars in billions)	
Selected Weighted-Average Interest Rates[(1)]		
Interest rate on short-term debt	2.29%	**1.56%**
Interest rate on long-term debt, including portion maturing within one year	2.83%	**2.86%**
Interest rate on callable long-term debt	2.95%	**3.39%**
Selected Maturity Data		
Weighted-average maturity of debt maturing within one year (in days)	163	**137**
Weighted-average maturity of debt maturing in more than one year (in months)	63	**66**
Other Data		
Outstanding callable debt	$ 64.3	**$ 38.5**
Connecticut Avenue Securities debt[(2)]	$ 25.6	**$ 21.4**

(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 include unamortized cost basis adjustments and fair value adjustments of $28 million and $432 million as of December 31, 2019 and 2018, respectively.

(2) Represents CAS debt issued prior to 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, proceeds from our mortgage asset sales, and cash from business operations.

For information on the maturity profile of our outstanding long-term debt for each of the years 2020 through 2024 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 increase in short-term debt issued and paid off during 2019 compared with 2018 was primarily driven by higher utilization of short-term notes with overnight maturities throughout 2019. The increase in long-term debt that was paid off in 2019 was due to an increase in maturities of non-callable debt over the prior year. The decrease in our debt issued and paid off during 2018 compared with 2017 was primarily driven by the decline in the size of our retained mortgage portfolio. We did not issue new debt to replace all of our debt that paid off during 2019 and 2018.

Activity in Debt of Fannie Mae

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(Dollars in millions)	
Issued during the period:			
Short-term:			
Amount	**$ 562,189**	$ 540,686	$ 707,834
Weighted-average interest rate	**2.13%**	1.63%	0.85%
Long-term:[1]			
Amount	**$ 21,545**	$ 22,014	$ 30,746
Weighted-average interest rate	**2.20%**	3.07%	2.47%
Total issued:			
Amount	**$ 583,734**	$ 562,700	$ 738,580
Weighted-average interest rate	**2.13%**	1.68%	0.92%
Paid off during the period:[2]			
Short-term:			
Amount	**$ 559,938**	$ 549,184	$ 709,446
Weighted-average interest rate	**1.99%**	1.51%	0.79%
Long-term:[1]			
Amount	**$ 73,547**	$ 58,497	$ 80,513
Weighted-average interest rate	**2.38%**	1.48%	2.44%
Total paid off:			
Amount	**$ 633,485**	$ 607,681	$ 789,959
Weighted-average interest rate	**2.04%**	1.51%	0.96%

(1) Includes credit risk-sharing securities issued as CAS debt prior to November 2018. 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 or our debt securities;
- changes in 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]

	2019	2018	2017
	(Dollars in millions)		
Federal funds purchased and securities sold under agreements to repurchase:			
Amount outstanding, as of December 31	**$ 478**	$ —	$ —
Weighted-average interest rate	**1.67%**	—%	—%
Average outstanding, during the year[2]	**$ 234**	$ 83	$ 106
Weighted-average interest rate	**1.95%**	1.08%	0.34%
Maximum outstanding, during the year[3]	**$ 1,726**	$ 1,500	$ 1,138
Total short-term debt of Fannie Mae:			
Amount outstanding, as of December 31	**$ 26,662**	$ 24,896	$ 33,377
Weighted-average interest rate	**1.56%**	2.29%	1.18%
Average outstanding, during the year[2]	**$ 18,547**	$ 23,237	$ 29,545
Weighted-average interest rate	**2.08%**	1.73%	0.85%
Maximum outstanding, during the year[3]	**$ 33,461**	$ 37,446	$ 39,317

(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, CAS REMIC, and CAS CLN 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, including Fannie Mae commingled structured securities, 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, 2019, see "Guaranty Book of Business" and "Off-Balance Sheet Arrangements."

Contractual Obligations

	Payment Due by Period as of December 31, 2019				
	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]	$ 155,585	$ 47,427	$ 44,612	$ 19,645	$ 43,901
Contractual interest on long-term obligations	28,286	4,293	6,563	5,488	11,942
Operating lease obligations[2]	744	59	111	99	475
Purchase obligations:					
Mortgage commitments[3]	74,283	74,283	—	—	—
Other purchase obligations[4]	155	109	46	—	—
Other liabilities reflected in our consolidated balance sheets[5]	1,559	960	556	20	23
Total contractual obligations	$ 260,612	$ 127,131	$ 51,888	$ 25,252	$ 56,341

(1) Represents the carrying amount of our long-term debt assuming payments are made in full at maturity. Includes the effects of discounts, premiums and other cost basis adjustments.

(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 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 manage our exposure to 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.

(1) Cash equivalents are comprised of overnight repurchase agreements and U.S. Treasuries that have a maturity at the date of acquisition of three months or less.

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. In addition, actions by governmental entities impacting Treasury's support for our business or our debt securities could adversely affect the credit ratings of our senior unsecured debt. See "Risk Factors—Liquidity and Funding Risk" 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.

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

Fannie Mae Credit Ratings[(1)]

	December 31, 2019		
	S&P	**Moody's**	**Fitch**
Long-term senior debt	AA+	Aaa	AAA
Short-term senior debt	A-1+	P-1	F1+
Preferred stock	D	Ca	C/RR6
Outlook	Stable (for Long-Term Senior Debt)	Stable (for Long-Term Senior Debt and Preferred Stock)	Stable (for AAA rated Long-Term Issuer Default Ratings)

[1] As of December 31, 2019, all outstanding subordinated debt has matured. As a result, there are no longer ratings on that instrument. One Rating Agency, Moody's Investors Service, maintains a rating on the Subordinate Shelf of (P)Aa2.

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, 2019. Cash, cash equivalents and restricted cash increased from $49.4 billion as of December 31, 2018 to $61.4 billion as of December 31, 2019. The increase was primarily driven by cash inflows from (1) proceeds from repayments and sales of loans, (2) the sale of Fannie Mae MBS to third parties, and (3) the net decrease in federal funds sold and securities purchased under agreements to resell or similar agreements.

Partially offsetting these cash inflows were cash outflows primarily from (1) payments on outstanding debt of consolidated trusts, (2) purchases of loans held for investment, and (3) the redemption of funding debt, which outpaced issuances due to lower funding needs.

Year Ended December 31, 2018. Cash, cash equivalents and restricted cash decreased 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.

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. As we discuss in "Business—Charter Act and Regulation—GSE Act and Other Legislation—Capital," we expect FHFA, in its capacity as our regulator, to propose new capital requirements for the GSEs this year, which would be suspended while we remain in conservatorship.

Capital Activity

Under the terms governing the senior preferred stock, effective with the third quarter 2019 dividend period, we will not owe dividends to Treasury until we have accumulated over $25 billion in net worth; and the aggregate liquidation preference of the senior preferred stock increases at the end of each quarter by the increase, if any, in our net worth during the immediately prior fiscal quarter, until the liquidation preference has increased by $22 billion pursuant to this provision. Accordingly, no dividends were payable to Treasury for the fourth quarter of 2019 and none are payable for the first quarter of 2020. Also, the aggregate liquidation preference of the senior preferred stock increased to $131.2 billion as of December 31, 2019 and will further increase to $135.4 billion as of March 31, 2020. As of December 31, 2019, our net worth was $14.6 billion.

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—GSE and Conservatorship Risk" 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.

Since we began issuing UMBS in June 2019, some of the securities we issue are structured securities backed, in whole or in part, by Freddie Mac securities. When we issue a structured security, we provide a guaranty that we will supplement amounts received from the underlying mortgage-related security as required to permit timely payment of principal and interest on the certificates related to the resecuritization trust. Accordingly, when we issue structured securities backed in whole or in part by Freddie Mac securities, we extend our guaranty to the underlying Freddie Mac security included in the structured security. Our issuance of structured securities backed in whole or in part by Freddie Mac securities creates additional off-balance sheet exposure as we do not have control over the Freddie Mac mortgage loan securitizations. Because we do not have the power to direct matters (primarily the servicing of mortgage loans) that impact the credit risk to which we are exposed, which constitute control of these securitization trusts, we do not consolidate these trusts in our consolidated balance sheet, giving rise to off-balance sheet exposure.

The total amount of our off-balance sheet exposure related to unconsolidated Fannie Mae MBS net of any beneficial interest that we retain, and other financial guarantees was $68.6 billion as of December 31, 2019. Approximately $37.8 billion of this amount consisted of the unpaid principal balance of Freddie Mac-issued UMBS backing Fannie Mae-issued Supers. Additionally, off-balance sheet exposure includes approximately $12.3 billion of the unpaid principal balance of Freddie Mac securities backing Fannie Mae-issued REMICs; however, a portion of these Freddie Mac securities may be backed in whole or in part by Fannie Mae MBS. Therefore, our total exposure to Freddie Mac securities included in Fannie Mae REMIC collateral is likely lower. We expect our off-balance sheet exposure to Freddie Mac securities to increase as we issue more structured securities backed by Freddie Mac securities in the future. The total amount of our off-balance sheet exposure related to unconsolidated Fannie Mae MBS and other financial guarantees was $21.1 billion as of December 31, 2018. We did not have any Freddie Mac-issued UMBS backing Fannie Mae structured securities as of December 31, 2018. See “Note 6, Financial Guarantees” for more information regarding our maximum exposure to loss on unconsolidated Fannie Mae MBS and Freddie Mac securities.

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 $7.2 billion as of December 31, 2019 and $8.3 billion as of December 31, 2018. 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 do not have a controlling financial interest in those entities, our consolidated balance sheets reflect only our investment rather than the full amount of the partnership’s assets and liabilities. See “Note 2, Consolidations and Transfers of Financial Assets—Unconsolidated VIEs” for information regarding our limited partnerships and similar legal entities.

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 guaranty book of business and our institutional counterparties.
- ***Market Risk****.* Market risk is the risk of loss resulting from changes in the economic environment. Market risk arises from fluctuations in interest rates, exchange rates, and other market rates and prices. Market risk includes interest-rate risk, which is the risk that movements in interest rates will adversely affect the value of our assets or liabilities or our future earnings. Market risk 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 arising from an inability to meet obligations when they come due, including the 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 and systems, or disruptions 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 poor business decisions, poor implementation of business decisions or the failure to respond appropriately to changes in the industry or external environment.
- ***Compliance Risk**.* Compliance risk is the risk to our company, including the risk of exposure to adverse legal proceedings, arising from violations of laws or regulations; from nonconformance with requirements or guidance from a regulator, MBS trust terms or disclosure obligations, or our ethical standards or Code of Conduct.
- ***Reputational Risk**.* Reputational risk is the risk that substantial negative publicity may cause a decline in public perception of us, a decline in our customer base, costly litigation, revenue reductions, or losses.

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.

Component	Description
Governance & Culture	We develop and execute our strategy and business objectives in alignment with our vision and values, which promote our inclusive culture and define how we want to conduct business. Our risk governance structure establishes authority, responsibility and accountability for risk management, which we conduct through a variety of controls designed to act in concert, including delegations of authority, risk committees, risk policies, risk appetite and risk limits.
Strategy & Objective Setting	Risk management is integrated with our strategy and business objectives. This integration provides insight into the risk profile associated with our strategy.
Risk Identification and Assessment	We identify, assess and respond to risks generated in the pursuit of our strategy and objectives. Performing these activities across the company allows us to address risks arising from different sources and tailor appropriate responses.
Review & Revision	We evaluate our enterprise risk management framework and policies periodically to ensure they continue to support our needs and reflect our current practices and regulatory expectations.
Risk Information, Communication & Reporting	We identify, capture and communicate relevant information so that stakeholders can carry out their responsibilities and make sound and informed risk management decisions.

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.

Governance

Board of Fannie Mae

- Oversees our enterprise risk management program and its alignment with our strategy and business objectives
- Approves Board-level risk policies, risk appetite and risk limits
- Delegates authorities to the Chief Executive Officer and management-level risk committees
- Certain activities require conservator decision or notification

Risk Policy & Capital Committee

- Assists the Board in overseeing enterprise risk management and recommends for Board approval Board-level risk policies, risk appetite and risk limits

Audit Committee

- Reviews the system of internal controls we rely on to provide reasonable assurance of compliance with our enterprise risk management processes

Management-Level Risk Committees

- Consist of committees overseeing risk across the company, including risks associated with our business, assets and liabilities, operations, third-parties, models and technology
- Include members of management from the first, second and third lines of defense functions
- Approve management-level policies, establish risk parameters and recommend risk policies
- Provide a cross-functional forum for discussing and documenting risks and responses
- Review decisions on matters that may expose our enterprise to significant, new or unusual risk

Lines of Defense

Business Units & Operations

First Line: *Generate, own, and manage risks*

- Responsible for identifying, assessing, responding to, monitoring, and reporting on risks arising from group operations, activities and systems
- Conform to the risk appetite, policies, standards, and limits or thresholds approved by FHFA, the Board and the relevant management-level risk committees

ERM, Compliance & Ethics, Support Functions

Second Line: *Independent monitoring and oversight of risk*

- Consists of groups responsible for independent risk management oversight and monitoring, such as Enterprise Risk Management and Compliance & Ethics
- Also includes independent support functions such as Finance (including SOX), Legal, and Human Resources

Internal Audit

Third Line: *Independent assurance*

- An independent, objective assurance and advisory function
- Provides an independent evaluation of the effectiveness of internal controls employed by management

Mortgage Credit Risk Management

Overview

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 a discussion of 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.”

Weather, Climate and Natural Disaster Risk Management

Major weather events or other natural disasters expose us to credit risk in a variety of ways, including by damaging properties that secure mortgage loans in our book of business and by negatively impacting the ability of borrowers to make payments on their mortgage loans. The amount of losses we incur as a result of a major weather event or natural disaster depends significantly on the extent to which the resulting property damage is covered by hazard or flood insurance and whether borrowers are able and willing to continue making payments on their mortgages. The amount of losses we incur can also be affected by the extent that a disaster impacts the region, especially if it depresses the local economy, and by the availability of federal, state, or local assistance to borrowers affected by a disaster.

For multifamily DUS loans, our DUS model results in lenders sharing the losses resulting from a disaster. However, other forms of credit enhancement and risk transfer we establish typically have not been designed to reduce our weather and disaster-related losses. For example, our credit risk transfer transactions are not designed to shield us from all losses because

we retain a portion of the risk of loss, including all or a portion of the first loss risk in most transactions. If aggregate losses from future disasters exceed the amount of our retained first loss position, our credit risk transfer transactions will cover disaster-related losses, similar to other credit losses. As a result, to the extent we transfer a greater portion of the risk of loss in future transactions, or in the event that our potential losses from future disasters are greater than they have been for past disasters, our credit risk transfer transactions may reduce the amount of losses we incur. In addition, mortgage insurance does not protect us from default risk for properties that suffer damages not covered by the hazard or flood insurance we require.

In general, we require borrowers to obtain property insurance to cover the risk of damage to their property resulting from hazards such as fire, wind and, for properties in areas identified by FEMA as Special Flood Hazard Areas, flooding. At the time of origination, a borrower is required to provide proof of such insurance, and our servicers have the right and the obligation to obtain such insurance, at the borrower’s cost, if the borrower allows the policy to lapse. We do not generally require property insurance to cover damages from flooding in areas outside a Special Flood Hazard Area, or to cover earthquake damage to single-family properties outside of Puerto Rico and to multifamily properties unless required by a seismic-risk assessment.

In the event of a natural or other disaster, our servicers work with affected borrowers to develop a plan that addresses the borrower’s specific situation. Depending on the circumstances, the plan may include one or more of the following: a payment forbearance plan; a repayment or reinstatement plan; loan modification; coordination with insurance companies and administration of insurance proceeds; and, if necessary, loss mitigation or other property non-retention options. We have also established Fannie Mae’s Disaster Response Network™ to offer our eligible single-family borrowers free support from HUD-approved housing advisors, including help in developing a recovery assessment and action plan, filing claims, working with mortgage servicers, and identifying and navigating sources of federal, state and local assistance. These activities are designed to assist borrowers affected by disasters and thereby help reduce our losses, and we continue to evaluate their impact and seek new options and resources to deploy in response to disasters.

Recent years have seen frequent and severe natural disasters in the U.S., including hurricanes, wildfires and floods. There are concerns that the frequency and severity of major weather-related events is indicative of changing weather patterns and that these patterns could persist or intensify. Population growth and an increase in people living in high-risk areas, such as coastal areas vulnerable to severe storms and flooding, has also increased the impact of these events.

We recognize that the increased frequency, severity and unpredictability of major natural disasters poses risks for all stakeholders in the housing system, including borrowers, renters, lenders, investors, insurers, and us. We are exploring the role we, along with FHFA and others, can play in helping to address some of these risks. For example, we are currently examining flood risk and insurance beyond our current requirements and considering how we can help develop solutions to address this risk, especially solutions that would not merely transfer risk away from us, but that would reduce the risks for all involved. Developing solutions to these challenges is complicated by the range and diversity of affected stakeholders, the possible need for legislative or regulatory action, industry insurance capacity, and the need to balance risk mitigation, affordability and sustainability.

See “Risk Factors—Credit Risk” for additional information on the risks we face from the occurrence of major natural or other disasters, including additional ways that such events could negatively impact our business, results and liquidity.

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—Credit Risk” 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 that reports to our Chief Risk Officer 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.

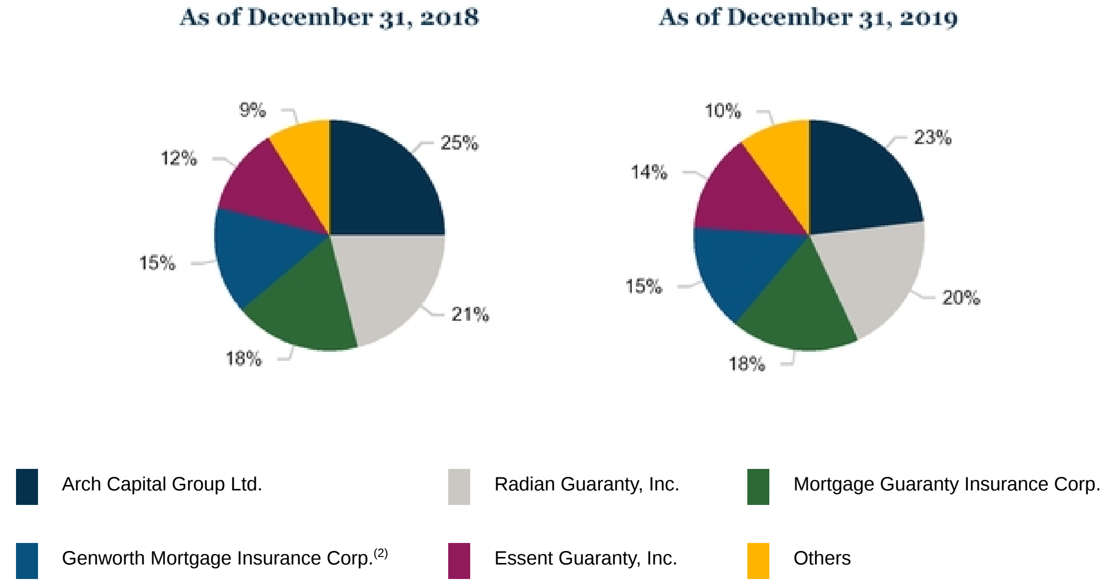
In describing our mortgage insurance coverage, “insurance in force” refers to the unpaid principal balance of single-family loans in our conventional guaranty book of business covered under the applicable mortgage insurance policies. Our total mortgage insurance in force was $638.8 billion, or 22% of our single-family conventional guaranty book of business, as of December 31, 2019, compared with $598.7 billion, or 21% of our single-family conventional guaranty book of business, as of December 31, 2018.

“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, 2019, our total mortgage insurance risk in force was $163.2 billion, or 6% of our single-family conventional guaranty book of business, compared with $152.8 billion, or 5% of our single-family conventional guaranty book of business, as of December 31, 2018.

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 conventional guaranty book of business.

Mortgage Insurer Concentration(1)



(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. 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, 2% as of December 31, 2019, compared with 3% as of December 31, 2018, 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—Credit Risk" 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.

Mortgage insurers must meet and maintain compliance with private mortgage insurer eligibility requirements ("PMIERs") to be 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 published revised PMIERs in September 2018, which became effective immediately for new mortgage insurer applicants and in March 2019 for existing approved private mortgage insurers. The revised PMIERs changed the PMIERs risk-based asset requirements, enhanced the treatment of approved risk transfer transactions and adjusted risk-transfer credit arising from counterparty risk associated with reinsurance transactions.

Reinsurers

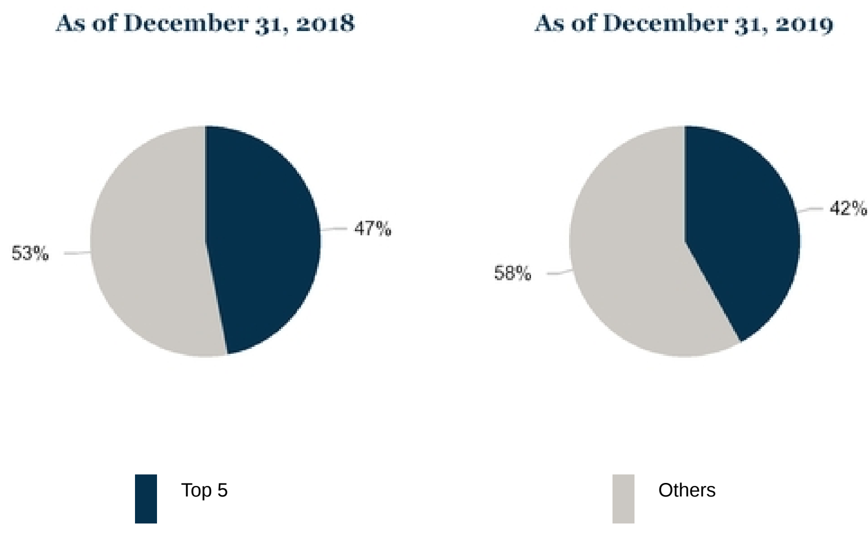
We use CIRT deals to transfer credit risk on a pool of loans to an insurance provider that retains the risk, or to an insurance provider that simultaneously cedes all of its risk to one or more reinsurers. In CIRT transactions, we select the insurance providers and approve the allocation of coverage 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. Contractual provisions 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



- As of December 31, 2019, our CIRT counterparties had a maximum liability to us of $9.9 billion.
- As of December 31, 2019, $2.9 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 $4.1 billion as of December 31, 2019, compared with $3.7 billion as of December 31, 2018.

Our CIRT counterparty credit concentration decreased in 2019 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—Single-Family 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, primarily through the DUS program, 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 $81.4 billion as of December 31, 2019, compared with $71.8 billion as of December 31, 2018. As of both December 31, 2019 and December 31, 2018, 44% 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, 2019, approximately 37% 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 33% as of December 31, 2018. 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—Credit Risk” 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 servicing performance expectations.

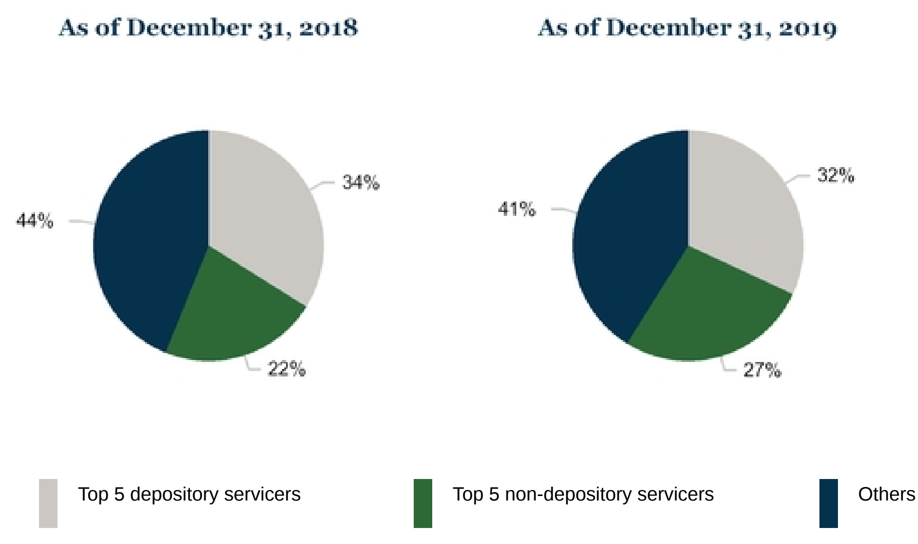
We may take one or more of the following actions to mitigate our credit exposure to mortgage servicers that present a higher risk:

- 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.

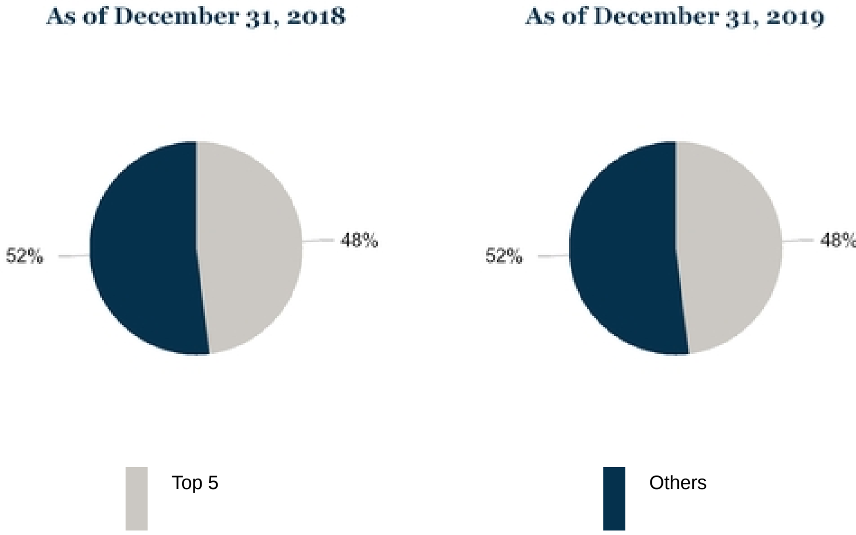
Single-Family Mortgage Servicer Concentration



- As of December 31, 2019, Wells Fargo Bank, N.A., together with its affiliates, serviced approximately 17% of our single-family guaranty book of business, compared with 18% as of December 31, 2018.

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, 2019 and 2018, Wells Fargo Bank, N.A., together with its affiliates, 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 and Representation and Warranty Framework,” 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, 2019, our other investments portfolio totaled $74.3 billion and included $39.5 billion of 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. We mitigate our risk by monitoring the credit risk position of our other investments portfolio. As of December 31, 2019, we held $8.7 billion in overnight unsecured deposits with seven financial institutions, compared with $8.0 billion held with six financial institutions as of December 31, 2018. 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 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, 2019 and 2018, 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 7% as of December 31, 2019 compared with 8% as of December 31, 2018.

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 $40 million as of December 31, 2019 and $57 million as of December 31, 2018.

See “Note 8, Derivative Instruments” and “Note 14, Netting Arrangements” for additional information on our derivative contracts as of December 31, 2019 and 2018.

Other Counterparties

Counterparty Credit Risk Exposure Arising from the Resecuritization of Freddie Mac-Issued Securities

We began resecuritizing Freddie Mac-issued securities in June 2019 when we began issuing UMBS, which has increased our credit risk exposure and operational risk exposure to Freddie Mac, and our risk exposure to Freddie Mac is expected to increase as we issue more structured securities backed by Freddie Mac securities going forward. Our inclusion of Freddie Mac securities as collateral for the structured securities that we issue increases our counterparty credit risk exposure to Freddie Mac. In the event Freddie Mac were to fail (for credit or operational reasons) to make a payment on a payment date on Freddie Mac securities that we had resecuritized in a Fannie Mae-issued structured security, we would be responsible for making the entire payment on the Freddie Mac securities included in that structured security in order to make payments on any of our outstanding single-family Fannie Mae MBS to be paid on that payment date. Accordingly, as the amount of structured securities we issue that are backed by Freddie Mac securities grows, if Freddie Mac were to fail to meet its obligations to us under the terms of these securities, it could have a material adverse effect on our earnings and financial condition. We believe the risk of default by Freddie Mac is negligible because of the funding commitment available to Freddie Mac through its senior preferred stock purchase agreement with Treasury.

As of December 31, 2019, approximately $50.1 billion in Freddie Mac securities were backing Fannie Mae-issued structured securities. We had no such transactions or activity in 2018. See “Business—Mortgage Securitizations—Uniform Mortgage-Backed Securities, or UMBS” and “Risk Factors—GSE and Conservatorship Risk” for more information on risks associated with our issuance of UMBS.

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. To mitigate these risks, our Servicing Guide requires our mortgage servicer counterparties to use custodial depository institutions that are insured, that are rated as “well capitalized” by their regulator and that meet certain minimum financial ratings from third-party agencies.

Mortgage Originators, Investors and Dealers

We are routinely exposed to pre-settlement risk through the purchase or sale of mortgage loans and mortgage-related securities with mortgage originators, mortgage investors and mortgage dealers. The risk is the possibility that the counterparty will be unable or unwilling to either deliver mortgage assets or compensate us for the cost to cancel or replace the transaction. We manage this risk by determining position limits with these counterparties, based upon our assessment of their creditworthiness, and by monitoring and managing these exposures.

Debt Security Dealers

The credit risk associated with dealers that commit to place our debt securities is that they will fail to honor their contracts to take delivery of the debt, which could result in delayed issuance of the debt through another dealer. We manage these risks by establishing approval standards, monitoring our exposure positions and monitoring changes in the credit quality of dealers.

Document Custodians

We use third-party document custodians to provide loan document certification and custody services for some of the loans that we purchase and securitize. In many cases, our lender customers or their affiliates also serve as document custodians for us. Our ownership rights to the mortgage loans that we own or that back our Fannie Mae MBS could be challenged if a lender intentionally or negligently pledges or sells the loans that we purchased or fails to obtain a release of prior liens on the loans that we purchased, which could result in financial losses to us. When a lender or one of its affiliates acts as a document custodian for us, the risk that our ownership interest in the loans may be adversely affected is increased, particularly in the event the lender were to become insolvent. We mitigate these risks through legal and contractual arrangements with these custodians that identify our ownership interest, as well as by establishing qualifying standards for document custodians and requiring removal of the documents to our possession or to an independent third-party document custodian if we have concerns about the solvency or competency of the document custodian.

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 movements in interest rates will adversely affect 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—Market and Industry Risk" 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—Market and Industry Risk" 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 SOFR and U.S. Treasuries.

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:

- as a substitute for notes and bonds that we issue in the debt markets;
- to achieve risk management objectives not obtainable with debt market securities;
- to quickly and efficiently rebalance our portfolio; and
- 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; and
- a 25 basis point change in the slope of the yield curve.

In measuring the estimated impact of changes in the level of interest rates, we assume a parallel shift in all maturities of the U.S. LIBOR interest-rate swap curve.

In measuring the estimated impact of changes in the slope of the yield curve, we assume a constant 7-year rate and a shift of 16.7 basis points for the 1-year rate and shorter tenors and an opposite shift of 8.3 basis points for the 30-year rate. Rate shocks for remaining maturity points are interpolated. 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, 2019 and 2018.

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]	
	2019	2018
	(Dollars in millions)	
Rate level shock:		
-100 basis points	**$ 57**	$ (286)
-50 basis points	**11**	(119)
+50 basis points	**51**	48
+100 basis points	**160**	29
Rate slope shock:		
-25 basis points (flattening)	**(20)**	(7)
+25 basis points (steepening)	**22**	6

	For the Three Months Ended December 31,[1][3]					
	2019			2018		
	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	**(0.02)**	**$ (19)**	**$ 5**	(0.01)	$ (8)	$ (65)
Minimum	**(0.05)**	**(27)**	**(20)**	(0.07)	(18)	(119)
Maximum	**0.04**	**(12)**	**34**	0.05	(1)	(40)
Standard deviation	**0.02**	**4**	**13**	0.02	4	17

(1) Computed based on changes in U.S. LIBOR interest-rate swap curves.

(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, 2019. 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]	
	2019	2018
	(Dollars in millions)	
Before derivatives	**$ (197)**	$ (535)
After derivatives	**51**	48
Effect of derivatives	**248**	583

(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—Operational Risk" 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 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. For a discussion of our Board of Directors' role in overseeing the company's cybersecurity risk management, see "Directors, Executive Officers and Corporate Governance—Corporate Governance—Risk Management Oversight—Board's Role in Cybersecurity Risk Oversight."

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. In addition, 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 prevent cyber attacks. See "Risk Factors—Operational Risk" 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—Operational Risk" 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 one of our accounting policies, allowance for loan losses, as critical because it involves 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.

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 in 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 Adopting the CECL Standard

The CECL standard became effective for our fiscal year beginning January 1, 2020. We have changed our accounting policies and implemented system, model and process changes to adopt the standard, which will be reflected in our financial statements for the quarter ending March 31, 2020. Upon adoption we used a discounted cash flow method to measure expected credit losses on our single-family mortgage loans and an undiscounted loss method to measure expected credit losses on our multifamily mortgage loans. The models used to estimate credit losses incorporated our historical credit loss experience, adjusted for current economic forecasts and the current credit profile of our loan book of business. The models used reasonable and supportable forecasts for key economic drivers, such as home prices (single-family), rental income (multifamily) and capitalization rates (multifamily). Our process for determining the impact upon adoption of the new standard is complex and involves significant management judgment, including a reliance on historical loss information and current economic forecasts that may not be representative of credit losses we ultimately realize.

Impact of Future Adoption of New Accounting Guidance

As discussed above, we adopted the CECL standard on January 1, 2020. Our adoption of the CECL standard will reduce our retained earnings by $1.1 billion on an after-tax basis, which will be reflected in our financial statements for the quarter ending March 31, 2020. We further 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.

"CECL standard" refers to Accounting Standards Update 2016-13, Financial Instruments—Credit Losses, Measurement of Credit Losses on Financial Instruments and related amendments.

"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 mortgage loans in our guaranty book of business, to third-party investors.

"Connecticut Avenue Securities Credit-Linked Notes" or *"CAS CLNs"* refers to Connecticut Avenue Securities that are structured as securities issued by trusts that do not qualify as REMICs.

"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 Legislation."

"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 (excluding the portions of any structured securities Fannie Mae issues that are backed by Freddie Mac securities); (2) mortgage loans of Fannie Mae held in our retained mortgage portfolio; and (3) other credit enhancements that we provide on mortgage assets. It also 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 our reserve for guaranty losses. Through December 31, 2019, loss reserves reflect 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. Since our adoption of the CECL standard on January 1, 2020, which will impact our financial statements for periods beginning on or after that date, our loss reserves reflect our estimate of lifetime expected credit losses rather than solely incurred losses.

"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 for 2019 and prior periods 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. For periods after 2019, at FHFA's direction our mortgage asset calculation will also include 10% of the notional value of interest-only securities we hold. We disclose the amount of our mortgage assets for purposes of the senior preferred stock purchase agreement on a monthly basis in the "Endnotes" to 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 Connecticut Avenue Securities" or *"MCAS"* refers to Connecticut Avenue Securities that are structured as notes issued by trusts to transfer credit risk on our multifamily guaranty book of business to third-party investors.

"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 any type of mortgage-backed security that we issue, including UMBS, Supers, REMICs and other types of single-family or multifamily mortgage-backed securities that are held by third-party investors or in our retained mortgage portfolio. For securities held by third-party investors, it excludes the portions of any structured securities Fannie Mae issues that are backed by Freddie Mac-issued securities.

"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 securitizations that are resecuritizations of UMBS or previously-issued structured securities. As described in "Business—Mortgage Securitizations—Uniform Mortgage-Backed Securities, or UMBS," structured securities can be commingled—that is, they can include both Fannie Mae securities and Freddie Mac securities as the underlying collateral for the security

"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.

"*Uniform Mortgage-Backed Securities*" or "*UMBS*" refers to the securities each of Fannie Mae and Freddie Mac issues and guarantees that are directly backed by mortgage loans it has acquired as described in "Business—Mortgage Securitizations—Uniform Mortgage-Backed Securities, or UMBS."

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 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 Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures in effect as of December 31, 2019, the end of the period covered by this report. As a result of management's evaluation, our 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, 2019 or as of the date of filing this report.

Our disclosure controls and procedures were not effective as of December 31, 2019 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, 2019 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 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, 2019. 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, 2019 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, 2019 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, 2019. 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, 2019 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, 2019 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 Resolutions, 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, 2019 (“2019 Form 10-K”), and engaged in discussions regarding issues associated with the information contained in those filings. Prior to filing our 2019 Form 10-K, FHFA provided Fannie Mae management with written acknowledgment that it had reviewed the 2019 Form 10-K, and it was not aware of any material misstatements or omissions in the 2019 Form 10-K and had no objection to our filing the 2019 Form 10-K.
- Our senior management meets regularly with senior leadership at FHFA, including, but not limited to, the 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, 2019 have been prepared in conformity with GAAP.

Changes in Internal Control Over Financial Reporting

Overview

Management has evaluated, with the participation of our 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. Below we describe changes in our internal control over financial reporting since September 30, 2019 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 changes to various financial system applications in stages across the company. As we continue to implement these changes, each implementation may become a significant component of our internal control over financial reporting.

Implementation of CECL Standard

We began using new and enhanced models, new systems and enhanced business processes related to our adoption of the CECL standard as of January 1, 2020. In connection with the adoption and related business process changes, we redesigned multiple existing controls that were previously considered effective with new or modified controls and, in some cases, removed controls that are no longer applicable. We will continue to monitor and test these new and modified controls for adequate design and operating effectiveness. Because these changes were not fully implemented until January 2020, except for our estimate of the impact of adopting the CECL standard, we used our existing incurred loss impairment methodology, processes and controls for both single-family and multifamily mortgage loans in preparing our 2019 consolidated financial statements included in this report.

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, 2019, 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, 2019, 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, 2019, of the Company and our report dated February 13, 2020, 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, 2019, of the Company and this report does not affect our report on such financial statements.

/s/ Deloitte & Touche LLP

McLean, Virginia

February 13, 2020

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.

Amy E. Alving

Age 57

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 and a Trustee of Princeton University.

Sheila C. Bair

Age 65

Independent director since August 2019

Board committees:
- Compensation
- Nominating and Corporate Governance
- Risk Policy and Capital

Ms. Bair was President of Washington College from August 2015 to June 2017. Prior to that, she was Senior Advisor to the Pew Charitable Trusts from 2011 to 2015. Ms. Bair was also Senior Advisor to DLA Piper, an international law firm, from 2014 to 2015. Ms. Bair was the Chair of the Federal Deposit Insurance Corporation from 2006 to 2011. From 2002 to 2006, she was the Dean’s Professor of Financial Regulatory Policy for the Isenberg School of Management at the University of Massachusetts—Amherst. She also served as Assistant Secretary for Financial Institutions at the U.S. Department of the Treasury from 2001 to 2002, Senior Vice President for Government Relations of the New York Stock Exchange from 1995 to 2000, Commissioner of the Commodity Futures Trading Commission from 1991 to 1995, counsel to the New York Stock Exchange from 1988 to 1990, and counsel to Senator Bob Dole from 1981 to 1988. Ms. Bair is currently a member of the Board of Directors of the Thomson Reuters Corporation, where she serves as Chair of the Risk Committee and a member of the Audit Committee. She is also a current member of the Board of Directors of Host Hotels & Resorts, Inc., where she serves

as a member of the Audit Committee and the Nominating and Corporate Governance Committee. Ms. Bair is also currently a member of the Board of Directors of Bunge Limited, where she serves as a member of the Audit Committee and the Finance and Risk Policy Committee. In addition, Ms. Bair is currently a member of the Board of Directors of the Industrial and Commercial Bank of China Ltd. ("ICBC"), where she serves as a member of the Compensation Committee, the Nomination Committee, the Risk Management Committee, the Strategy Committee and the US Risk Committee. Ms. Bair also serves as Chair Emerita of the Systemic Risk Council, a public interest group that monitors progress on the implementation of financial reforms, and on the boards of Paxos Trust Company, LLC and its parent Kabompo Holdings, Ltd., and the Volcker Alliance. Ms. Bair has announced that, in order to pursue new board opportunities at Fannie Mae and Bunge, she will not be standing for re-appointment to the boards of Thomson Reuters and ICBC when her terms expire in 2020.

Brian P. Brooks

Age 50

Director since March 2019

Board committees:
- Community Responsibility and Sustainability
- Risk Policy and Capital
- Strategic Initiatives and Technology

Mr. Brooks has served as the Chief Legal Officer of Coinbase Global, Inc. since September 2018. Mr. Brooks previously served as Fannie Mae's Executive Vice President, General Counsel and Corporate Secretary from 2014 to September 2018. Prior to that time, Mr. Brooks was Vice Chairman of OneWest Bank N.A., from 2011 to 2014, where he served as chief legal officer. Previously, Mr. Brooks was a partner at the law firm of O'Melveny & Myers LLP, where he served from 2008 through 2011 as managing partner of the Washington, D.C. office and from 2010 through 2011 as group leader of the firm's financial services practice. Mr. Brooks currently serves as a member of the board of directors of Avant, a marketplace lender and financial technology company. He is also an advisor to several venture-backed technology startups.

Hugh R. Frater

Age 64

Director since January 2016

Chief Executive Officer since March 2019

Board committees:
- Community Responsibility and Sustainability

Mr. Frater was appointed Chief Executive Officer of Fannie Mae in March 2019, and prior to that time, he served as Fannie Mae's Interim Chief Executive Officer beginning in October 2018. Prior to becoming Fannie Mae's Interim Chief Executive Officer, Mr. Frater had been an independent director of Fannie Mae beginning in January 2016. Mr. Frater also serves as Non-Executive Chairman of the Board of VEREIT, Inc. 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 2014 to December 2015 and he served as Chief Executive Officer of Berkadia from 2010 to 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 70

Independent director since January 2016

Board committees:
- Community Responsibility and Sustainability
- 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 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 62

Independent director since May 2016

Board committees:
- Audit (Vice Chair)
- Community Responsibility and Sustainability (Chair)
- Compensation

Mr. Heid served as Executive Vice President (Home Lending) of Wells Fargo & Company from 1997 to his retirement in 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 also serves as a member of the Strategy Committee. Mr. Heid is also on the Advisory Board for Home Partners of America and Promontory Mortgage Path.

Robert H. Herz

Age 66

Independent director since June 2011

Board committees:
- Audit (Chair)
- Compensation (Vice Chair)
- Nominating and Corporate Governance

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 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 Lukka, 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 58

Independent director since July 2018

Board committees:
- Audit
- 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 2012 to July 2015. He served as a member of the Group Executive Committee from 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.

Karin J. Kimbrough

Age 51

Independent director since March 2019

Board committees:
- Audit
- Compensation
- Nominating and Corporate Governance

Ms. Kimbrough has served as Chief Economist for LinkedIn Corporation since January 2020. Ms. Kimbrough previously served as Assistant Treasurer for Google from October 2017 to December 2019. Prior to that time, Ms. Kimbrough served as a Managing Director and Head of Macroeconomic Policy at Bank of America Merrill Lynch from 2014 to October 2017. Ms. Kimbrough worked at the Federal Reserve Bank of New York from 2005 to 2014, serving as Vice President and a director for the Financial Stability Monitoring Function in the Markets Group from 2010 to 2014 and as a manager for Analytical Development from 2005 to 2010. Ms. Kimbrough previously worked as an economist and strategist at Morgan Stanley from 2000 to 2005.

Diane C. Nordin

Age 61

Independent director since November 2013; Board Vice Chair since April 2019

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

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 and the Human Resources Committee. She also serves as a member of the Board of Directors of Antares Midco, Inc., where she serves as Chair of the Compensation Committee. Ms. Nordin also serves as a member of the Board of Governors of the CFA Institute, where she serves as Board Chair and Executive Committee Chair.

Jonathan Plutzik

Age 65

Independent director since November 2009; Board Chair since December 2018

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 Zara’s Center Trust, the O, Miami Poetry Festival and the Jewish American and Holocaust Literature Association.

Manuel “Manolo” Sánchez Rodríguez

Age 54

Independent director since September 2018

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

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 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 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 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. 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. He is also currently a member of the Board of Directors of Stewart Information Services Corporation, where he serves as a member of the Audit Committee. In addition, Mr. Sánchez currently serves on the Board of Directors of BanCoppel S.A. Instutición de Banca Múltiple in Mexico City, where he is a member of the Risk Committee. Mr. Sánchez is Founder of Adelante Ventures LLC and an advisor to several fintech companies, including Spring Labs, Aura and Topl. He is an Adjunct Professor at Rice University’s Jones Graduate School of Business, where he teaches

disruption in financial services with a focus on crypto currencies and blockchain. 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 Texas Children's Hospital, the Houston Symphony, KIPP Houston Public Schools, and the Center for Houston's Future.

Ryan A. Zanin

Age 57

Independent director since September 2016

Board committees:
- Community Responsibility and Sustainability (Vice Chair)
- 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" 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:

- 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 that we may take;
- retention and termination of the external auditor;
- terminations of law firms serving as consultants to the Board;
- proposed 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.

Other matters:

- 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, lawsuits, claims, demands, prosecutions, regulatory proceedings or tax matters where the amount in dispute 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 provide timely notice to FHFA of: activities that represent a significant change in current business practices, operations, policies or strategies not otherwise addressed in the instructions; exceptions and waivers to aligned requirements, policies, frameworks, standards or products if not otherwise submitted to FHFA for decision as required above; and accounting error corrections to previously-issued financial statements that are not *de minimis*. FHFA will then determine whether any such items require its decision as conservator. 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 Chief Executive Officer is the only corporate officer serving as a director. Our Corporate Governance Guidelines, in accordance with FHFA corporate governance regulations, require a majority of Fannie Mae's directors to be independent. The Board currently has thirteen members, eleven of whom are independent. See "Certain Relationships and Related Transactions, and Director Independence—Director Independence" for a description of our director independence requirements and a discussion of the Board's review of the independence of all current Board members.

Our conservator appointed directors in 2008. 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 from FHFA, FHFA corporate governance regulations limit service on our Board to ten years or age 72,

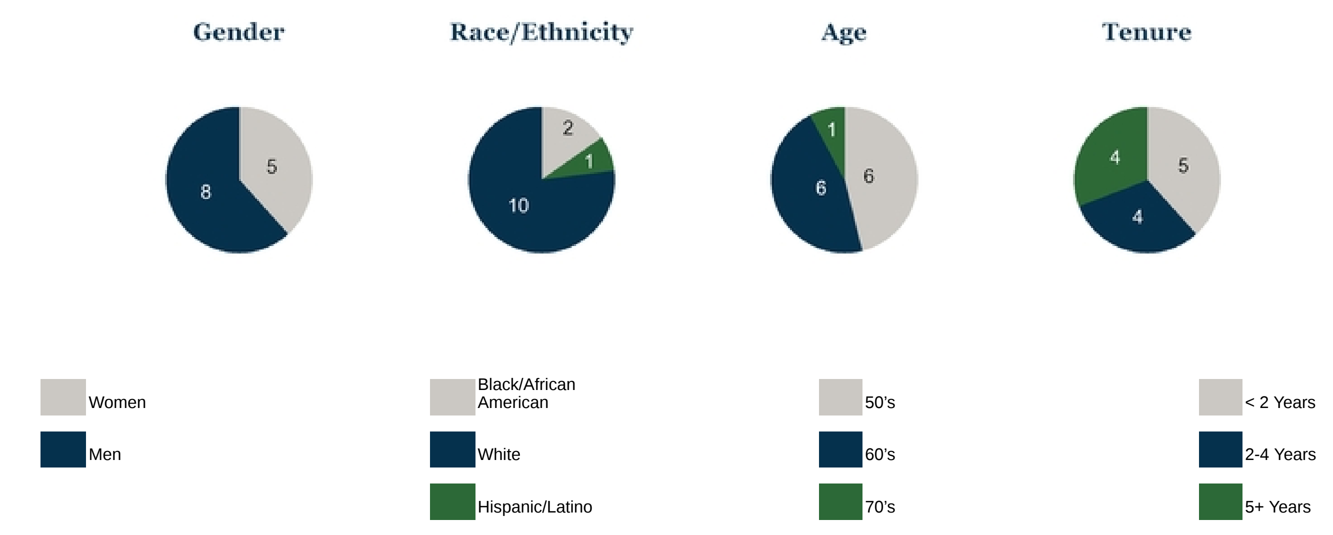
whichever comes first. In October 2019, FHFA approved a waiver of the ten-year Board term limit applicable to Mr. Plutzik, allowing him to serve on the Board and as Board Chair through December 31, 2022.

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. 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 as 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 also seeks Board members who possess the highest personal values, judgment and integrity, and who understand the regulatory and policy environment in which Fannie Mae does business. The Nominating and Corporate Governance Committee also considers whether a prospective Board candidate 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 for prospective Board candidates, and that the Committee seeks 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.

Our directors have a variety of backgrounds and overall experience. Nearly half of Fannie Mae's Board are women or minorities. Our Board also has a balance of longer-serving directors with institutional knowledge and newer directors with fresh perspectives. The charts below provide information on the composition of our Board by demographic background and Board tenure. We believe Fannie Mae's Board has more gender and racial/ethnic diversity than the average of Fortune 500 companies.

Board Diversity



The Nominating and Corporate Governance Committee evaluates the qualifications and performance of current directors on an annual basis, taking into consideration factors related to a Board member's contribution to the effective functioning of the Board. In its assessment of current directors and evaluation of potential candidates for director, the Nominating and Corporate Governance Committee considers these factors, as well as each individual'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 in "Directors."

Director Experience, Qualifications, Attributes and Skills

	Alving	Bair	Brooks	Frater	Glover	Heid	Herz	Jenkins	Kimbrough	Nordin	Plutzik	Sánchez	Zanin
Business	•	•	•	•	•	•	•	•	•	•	•	•	•
Finance	•	•	•	•	•	•	•	•	•	•	•	•	•
Capital Markets		•		•		•	•	•	•	•	•	•	•
Accounting	•	•	•	•	•	•	•	•	•	•	•	•	•
Risk Management	•	•	•	•	•	•	•	•	•	•	•	•	•
Public Policy	•	•	•		•	•		•	•				
Mortgage Lending		•	•	•		•	•	•		•	•	•	
Real Estate		•	•	•	•	•					•		•
Low-Income Housing			•	•	•								
Home Building					•								
Regulation of Financial Institutions		•	•	•	•	•	•	•		•	•	•	•
Technology	•	•	•					•	•			•	•

Board Leadership Structure

FHFA corporate governance 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.

Our Board has six standing committees: the Audit Committee, the Community Responsibility and Sustainability 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.

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 corporate governance regulations to follow specified NYSE corporate governance requirements relating to, among other things, the independence of our directors and the charter, independence, composition, expertise, duties, responsibilities and other requirements of our Board committees.

Risk Management Oversight

Our Board of Directors oversees risk management primarily through the Risk Policy and Capital Committee of the Board. FHFA corporate governance 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 corporate governance regulations require our Risk Policy and Capital Committee to assist the Board in carrying out its oversight of our risk management program. These regulations also require that our Risk Policy and Capital Committee must:

- 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 and maintain records of its meetings; and
- report directly to the Board and not as part of, or combined with, another committee.

FHFA corporate governance regulations set forth specific responsibilities for our Risk Policy and Capital Committee, including that it must:

- periodically review and recommend for Board approval an appropriate enterprise-wide risk management program that is commensurate with our capital structure, risk appetite, complexity, activities, size and other appropriate risk-related factors;
- receive and review regular reports from our Chief Risk Officer; and
- periodically review the capabilities for, and adequacy of resources allocated to, enterprise-wide risk management.

Our Risk Policy and Capital Committee Charter also sets forth the Risk Policy and Capital Committee's duties and responsibilities in overseeing risk management for all of our major categories of risk and any other emerging risks. For more information on the role of our Board and management in risk oversight, see "MD&A—Risk Management—Risk Management Governance."

Board's Role in Cybersecurity Risk Oversight

Cybersecurity risk is overseen by the Board as well as the Risk Policy and Capital Committee of the Board. The Risk Policy and Capital Committee has primary responsibility for oversight of cybersecurity risk matters. The Board has also delegated oversight authority for specified cybersecurity risk matters to certain management-level committees. The Board and the Risk Policy and Capital Committee engage in discussions throughout the year with senior management on cybersecurity risk matters and receive periodic reports from the company's chief information security officer and other senior officers, including updates on our cybersecurity program, the external threat environment, and the steps the company is taking to address and mitigate the risks associated with the evolving cybersecurity threat environment. Senior management, including the senior officers mentioned above, also discuss cybersecurity developments with the Chair of the Risk Policy and Capital Committee and other Board members between Board and committee meetings, as appropriate. In addition, the Board and the Risk Policy and Capital Committee receive updates regarding assessments by external parties about the company's cybersecurity program. The company has procedures to escalate information regarding certain cybersecurity incidents to the appropriate members of the Board in a timely fashion. The Board reviews and approves the company's Cyber Risk Policy and Operational Risk Policy at least annually. The Board and its committees also have authority, as they deem appropriate to fulfill Board or committee responsibilities, to engage outside consultants or advisors, including technology consultants and cybersecurity experts.

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 executive officers, our controller or our 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, Mr. Jenkins, Ms. Kimbrough and Ms. Nordin, all of whom are financially literate and all of whom are independent under the requirements of independence set forth in FHFA 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, Mr. Jenkins 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 in executive session on a regularly scheduled basis. In addition, our independent directors meet in executive session at least once each year. 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 2020. 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 Chief Executive Officer, has served 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 13, 2020, we have seven other executive officers:

David C. Benson

Age 60

President

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

Age 54

Executive Vice President—Single-Family Mortgage Business

Joined Fannie Mae in 1992

Mr. Bon Salle has been Executive Vice President—Single-Family Mortgage Business since 2014. Prior to that time, he served as Executive Vice President—Single-Family Underwriting, Pricing, and Capital Markets, from 2013 to 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

Age 43

Executive Vice President and Chief Financial Officer

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 2014 to April 2017 and as Head of Investor Relations from 2010 to 2014.

John S. Forlines

Age 56

Senior Vice President and Chief Risk Officer

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

Age 63

Executive Vice President and Head of Multifamily

Joined Fannie Mae in 1987

Mr. Hayward has served as Head of Multifamily since 2012, first as Senior Vice President and, since 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

Age 47

Executive Vice President and Chief Operating Officer

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.

Stergios “Terry” Theologides

Age 53

Executive Vice President, General Counsel and Corporate Secretary

Joined Fannie Mae in 2019

Mr. Theologides has served as Executive Vice President, General Counsel and Corporate Secretary since March 2019. Mr. Theologides previously was in private legal practice at Theologides Law, P.C. from October 2017 to February 2019. He served as Senior Vice President, General Counsel and Secretary of CoreLogic, Inc. from 2010 to September 2017, and served as Senior Vice President and General Counsel, Information Solutions Group, of The First American Corporation, CoreLogic’s predecessor, from 2009 to 2010. Mr. Theologides was Executive Vice President and General Counsel for Morgan Stanley’s U.S. residential mortgage businesses from 2007 to 2009. He was Executive Vice President, General Counsel and Secretary for New Century Financial Corporation from 1998 to 2007. Mr. Theologides was in private legal practice at O’Melveny & Myers LLP from 1992 to 1996.

Item 11. Executive Compensation

Compensation Discussion and Analysis

Named Executives for 2019

This Compensation Discussion and Analysis focuses on our compensation decisions and arrangements for 2019 relating to the following executives, whom we refer to as our “named executives”:

- **Hugh R. Frater** Chief Executive Officer
- **Celeste M. Brown** Executive Vice President and Chief Financial Officer
- **David C. Benson** President
- **Andrew J. Bon Salle** Executive Vice President—Single-Family Mortgage Business
- **Jeffery R. Hayward** Executive Vice President and Head of Multifamily

These officers are our principal executive officer, our principal financial officer, and our next three most highly compensated executive officers during 2019. We refer to our 2019 compensation arrangements with our named executives, other than our Chief Executive Officer, as the “2019 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 that significantly impacts the compensation we pay our named executives. We describe these requirements and legislation in “Legal and Regulatory Restrictions on Executive Compensation.”

Total annual direct compensation for our Chief Executive Officer is limited by statute to $600,000 in base salary while we are in conservatorship or receivership. The 2019 executive compensation program applicable to 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 currently 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.

We had a successful year in 2019. Under the leadership of our executives, including our named executives, we had net income of $14.2 billion in 2019. As discussed in “Determination of 2019 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 2019 set by FHFA as our conservator, which we refer to as the 2019 scorecard. In addition, our Board of Directors determined that we substantially achieved the goals it established for 2019. We also began to lay the groundwork for a potential exit from conservatorship.

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 with our need to attract and retain qualified and experienced

executives to prudently manage our $3.4 trillion guaranty book of business and enable the company to be an effective steward of taxpayer resources.

2019 Executive Compensation Program; Chief Executive Officer Compensation

Overview of 2019 Executive Compensation Program

FHFA has advised us that the design of our executive compensation program, which applies to our named executives other than our Chief Executive Officer, 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 generally to provide for lower pay levels relative to large financial services firms that are not in conservatorship.
- *Attract and Retain Executive Talent.* Our 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 $3.4 trillion guaranty book of business and enable the company to be an effective steward of taxpayer resources. We face competition for qualified executives from other companies. 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 corporate and individual performance.

Legal and Regulatory Restrictions on Executive Compensation

The amount of compensation we may pay our named executives is subject to a number of legal and regulatory restrictions, particularly while we are in conservatorship. The conservatorship also significantly affects the process by which our executives' compensation is determined. We describe below legal and regulatory requirements that significantly affect our executive compensation program and policies.

Requirements Applicable During Conservatorship

While we are in conservatorship, we are subject to additional legal and regulatory requirements relating to our executive compensation, including the following:

- *Equity in Government Compensation Act.* The Equity in Government Compensation Act of 2015 limits the annual direct compensation for our Chief Executive Officer to $600,000 in base salary while we are in conservatorship or receivership. This law also provides that compensation and benefits for our Chief Executive Officer may not be increased while we are in conservatorship or receivership.
- *STOCK Act.* Pursuant to the STOCK Act and related FHFA regulations, our senior executives, including the named executives, are prohibited from receiving bonuses during conservatorship.
- *FHFA Instructions—Executive Compensation.* As our conservator, FHFA has retained the authority to approve the terms and amounts 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.
- *FHFA Instructions—Other Compensation*. Pursuant to FHFA 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 Directives*. As our conservator, FHFA has directed us to:
  - limit base salaries for all employees to no more than $600,000;
  - obtain FHFA's decision before entering into any compensation arrangement for a new hire where the proposed total target direct compensation is $600,000 or above; and
  - obtain FHFA's decision before increasing the total target direct compensation of any employee where the proposed total target direct compensation is $600,000 or above.
- *Shareholder Powers.* 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.

- *Golden Parachute Regulation.* FHFA regulation pursuant to the GSE Act 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.

Other Applicable Requirements

We are also subject to legal and regulatory requirements relating to our executive compensation that apply whether or not we are in conservatorship, including the following:

- *Senior Preferred Stock Purchase Agreement.* Under the terms of our senior preferred stock purchase agreement with Treasury, until the senior preferred stock is repaid or redeemed in full:
  - 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.
- *Charter Act.* Under the Charter Act and related FHFA regulations, FHFA as our regulator must approve any termination benefits we offer to our named executives and certain other officers identified by FHFA.
- *GSE Act.* Pursuant to the GSE Act and related FHFA regulations, FHFA as our regulator has specified oversight authority over our executive compensation. The GSE Act directs FHFA to prohibit us from providing compensation to our named executives and certain other officers identified by FHFA that is not reasonable or comparable with compensation for employment in other similar businesses involving similar duties and responsibilities. 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. The GSE Act also provides that, if we are classified as significantly undercapitalized, FHFA's prior written approval is required to pay any bonus to an executive officer or to provide certain increases in compensation to an executive officer.

Chief Executive Officer Compensation

Direct compensation for our Chief Executive Officer 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. For purposes of this disclosure, "direct compensation" includes all salary and other cash compensation, but excludes certain health and welfare, retirement, relocation and other similar benefits. See "Compensation Tables and Other Information—Summary Compensation Table" for information about our Chief Executive Officer's total 2019 compensation.

Our current level of Chief Executive Officer compensation puts pressure on our ability to attract and retain executive talent. Total direct compensation for our Chief Executive Officer in 2019 was more than 90% below the market median for 2018 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. See "Risk Factors" for a discussion of the risks associated with executive retention and succession planning.

Elements of 2019 Executive Compensation Program

Direct Compensation

The table below summarizes the principal elements, objectives and key features of our 2019 executive compensation program for our named executives. Our Chief Executive Officer received only base salary and no deferred salary. All elements of our named executives' direct compensation are paid in cash.

<table>
<tr><th>Compensation Element</th><th>Form</th><th>Primary Compensation Objectives</th><th>Key Features</th></tr>
<tr><td>Base Salary</td><td>Fixed cash payments, which are paid during the year on a bi-weekly basis.</td><td>Attract and retain named executives by providing a fixed level of current cash compensation.</td><td>Base salary reflects each named executive's level of responsibility and experience, as well as individual performance over time.

Base salary may not exceed $600,000 for any employee, including the named executives, while we are in conservatorship.</td></tr>
<tr><td rowspan="4">Deferred Salary

(Not applicable to our Chief Executive Officer)</td><td rowspan="4">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.[1]

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.

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.</td><td colspan="2">Fixed Deferred Salary</td></tr>
<tr><td>Retain named executives.</td><td>Earned but unpaid fixed deferred salary is generally 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 earned 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.</td></tr>
<tr><td colspan="2">At-Risk Deferred Salary</td></tr>
<tr><td>Retain named executives and encourage them to achieve corporate and individual performance objectives.</td><td>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 2019 scorecard as determined by FHFA in its discretion. 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 2019 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.</td></tr>
</table>

(1) As described in "Future Change to At-Risk Deferred Salary Deferral Period" below, for our current named executives, at-risk deferred salary earned beginning January 1, 2022 will be paid in March, June, September and December of the second year following the performance year.

Employee Benefits

Our employee benefits serve as an important tool in attracting and retaining senior executives. We describe the employee benefits available in 2019 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 401(k) 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.

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. Mr. Frater was awarded relocation benefits in connection with his hire as our Chief Executive Officer in March 2019. Ms. Brown was awarded a sign-on award and relocation benefits in connection with her hire. See "Determination of 2019 Compensation—Certain Named Executive Compensation Arrangements" and "Compensation Tables and Other Information—Summary Compensation Table" for more information regarding Mr. Frater's relocation benefits and 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 2019 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.

Future Change to At-Risk Deferred Salary Deferral Period

In August 2019, FHFA directed us to increase the mandatory deferral period for at-risk deferred salary received by senior vice presidents and above from one year to two years. For executives hired before January 1, 2020, this change will be effective for at-risk deferred salary earned beginning January 1, 2022. For executives hired or promoted to senior vice president on or after January 1, 2020, this change is effective for at-risk deferred salary earned beginning January 1, 2020. Accordingly, for our current named executives, at-risk deferred salary earned beginning January 1, 2022 will be paid in quarterly installments in the second year following the performance year. For example, at-risk deferred salary earned in 2022 will be paid in quarterly installments in 2024. Because our Chief Executive Officer does not receive deferred salary, his compensation is not affected by this change. This change to our executive compensation program applies for so long as we are in conservatorship.

Determination of 2019 Compensation

2019 Compensation Actions

The table below displays the 2019 direct compensation targets for each of our named executives compared to the actual amounts that will be paid to the named executives based on the assessments and determinations by FHFA, the Compensation Committee and the Board of Directors. 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.

Summary of 2019 Compensation Actions

			2019 Corporate Performance-Based At-Risk Deferred Salary		2019 Individual Performance-Based At-Risk Deferred Salary		Total	
Name and Principal Position	**2019 Base Salary**	**2019 Fixed Deferred Salary**	**Target**	**Actual % of Target**	**Target**	**Actual % of Target**	**Target**	**Actual**
Hugh Frater[1] Chief Executive Officer	$ 600,000	$ —	$ —	—%	$ —	—%	$ 600,000	$ 600,000
Celeste Brown[2] Executive Vice President and Chief Financial Officer	569,231	1,229,231	385,385	85	385,384	100	2,569,231	2,511,423
David Benson President	600,000	1,920,000	540,000	85	540,000	95	3,600,000	3,492,000
Andrew Bon Salle Executive Vice President—Single-Family Mortgage Business	500,000	1,775,000	487,500	85	487,500	95	3,250,000	3,152,500
Jeffery Hayward Executive Vice President and Head of Multifamily	500,000	1,460,000	420,000	85	420,000	95	2,800,000	2,716,000

(1) Mr. Frater became our Chief Executive Officer in March 2019, after serving as our Interim Chief Executive Officer beginning in October 2018. See "Certain Named Executive Compensation Arrangements—Chief Executive Officer" and "Compensation Tables and Other Information—Summary Compensation Table" for more information regarding Mr. Frater's compensation.

(2) Amounts shown reflect increases in August 2019 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. See "Certain Named Executive Compensation Arrangements—Chief Financial Officer" and "Compensation Tables and Other Information—Summary Compensation Table" for more information regarding Ms. Brown's compensation.

Certain Named Executive Compensation Arrangements

Chief Executive Officer

Mr. Frater became our Chief Executive Officer in March 2019, after serving as our Interim Chief Executive Officer beginning in October 2018. We provided relocation benefits to Mr. Frater in connection with his hire in March 2019. See "Compensation Tables and Other Information—Summary Compensation Table" for additional information regarding Mr. Frater's compensation.

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 reflect the increased responsibilities, scope and complexity of her new role and to better align her compensation with the market. This increase was implemented in two steps. The first step was effective in November 2018 and increased her annual target direct compensation to $2,300,000, consisting of base salary of $550,000, fixed deferred salary of $1,060,000 and at-risk deferred salary of $690,000. The second step was effective in August 2019 and increased her annual target direct compensation 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.

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. Ms. Brown received the second installment pursuant to this sign-on award, in the amount of $700,000, in May 2018, and the final $700,000 installment in May 2019. The final installment is subject to repayment if Ms. Brown leaves Fannie Mae within one year after the payment. We also provided Ms. Brown with relocation benefits in 2018. See “Compensation Tables and Other Information—Summary Compensation Table” for additional information regarding Ms. Brown’s compensation.

Assessment of Corporate Performance against 2019 Scorecard

Overview

In December 2018, FHFA issued the 2019 scorecard, a set of corporate performance objectives and related targets for 2019. The elements of the 2019 scorecard are shown below under “FHFA Assessment.” FHFA developed these objectives and related targets with input from management. Half of 2019 at-risk deferred salary, or 15% of overall 2019 total target direct compensation for each named executive other than Mr. Frater, was subject to reduction based on FHFA’s assessment in its discretion of our performance against the 2019 scorecard and related objectives, including the assessment criteria identified below.

As part of the 2019 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 meet FHFA’s expectations under the conservatorship capital framework, including FHFA’s expectations on meeting appropriate return on conservatorship capital targets;
- 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, CSS, 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 2019 on our performance against the 2019 scorecard, including our performance against FHFA’s expectations for diversity and inclusion. In January 2020, FHFA reviewed and assessed our performance against the 2019 scorecard, with input from management and the Compensation Committee. FHFA determined that our overall performance against the 2019 scorecard was strong and that the portion of 2019 at-risk deferred salary for senior executives that is based on corporate performance would be paid at 85% of target. In assessing our performance against the 2019 scorecard, the factors considered by FHFA included our completion of all of the 2019 scorecard objectives and our performance against the qualitative assessment criteria referenced above.

The table below sets forth the 2019 scorecard and a summary of FHFA’s assessment of our achievement against the scorecard objectives and targets. For purposes of the 2019 scorecard, “Enterprise” refers to each of Fannie Mae and Freddie Mac.

Objectives and Weighting	Performance Assessment
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—40% weight	
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 support access to single-family mortgage credit for creditworthy borrowers, including underserved segments of the market:** • Continue to identify opportunities to support access to credit in a safe and sound manner that take into consideration changing borrower needs and enabling technology to document income, assets, and employment. • Continue to support access to credit for borrowers with limited English proficiency and make progress on multi-year language access plans. • Continue efforts supporting appraisal process modernization, including revised appraisal forms and data requirements.	**The objective was completed.** FHFA acknowledged the quality, thoroughness, creativity, effectiveness and timeliness of Fannie Mae's work on appraisal modernization and future technology.
Continue to responsibly support the Neighborhood Stabilization Initiative.	**The objective was completed.**
Continue efforts related to mortgage servicing that promote mortgage market stability by furthering opportunities to improve the borrower experience, expand liquidity, and increase efficiency.	**The objective was completed.**
Prepare for transition from LIBOR. Assess impact and perform industry outreach to inform policy and implementation plans.	**The objective was completed.** FHFA acknowledged Fannie Mae's cooperation, collaboration and engagement on this objective.
Explore opportunities to further affordability through multifamily energy and water efficiency programs: • Conduct research and outreach on loans that finance energy and water efficiency improvements.	**The objective was completed.**
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 2019 scorecard, are to be excluded from the $35 billion cap.	**The objective was completed.**
Reduce taxpayer risk through increasing the role of private capital in the mortgage market—30% weight	
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 2019, targeted single-family loan categories include: non-HARP, fixed-rate mortgages with terms greater than 20 years and loan-to-value ratios above 60 percent. Additional information on CRT targeted loan categories is in Appendix B to the 2019 scorecard. • Report the actual amount of underlying mortgage credit risk transferred.	**The objective was completed.**

Objectives and Weighting	Performance Assessment
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 the actual amount of underlying mortgage credit risk transferred.	**The objective was completed.** FHFA commended Fannie Mae for demonstrating creativity and leadership through the execution of its first multifamily CAS transaction in October 2019, as well as for significantly exceeding the annual target for multifamily CRT, executing multifamily CIRT transactions on a programmatic basis, and building capacity to transfer additional multifamily credit risk.
Retained Portfolio: • Execute FHFA-approved retained portfolio plans that maintain, even under adverse conditions, the annual senior preferred stock purchase agreement ("PSPA") requirements and the $250 billion PSPA cap. Any sales should be commercially reasonable transactions that consider impacts to the market, borrowers, and neighborhood stability.	**The objective was completed.**
Servicer Eligibility Requirements 2.0: • Evaluate the current liquidity requirements for non-depository Seller/Servicer Enterprise counterparties to determine whether changes are appropriate.	**The objective was completed.**
Build a new single-family infrastructure for use by the Enterprises and adaptable for use by other participants in the secondary market in the future—30% weight	

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 industry stakeholders.
• Work proactively with the industry to help market participants prepare for the implementation of the Single Security Initiative.
	The objective was completed.
	FHFA acknowledged Fannie Mae's cooperation, collaboration and engagement on the Single Security Initiative, which was successfully implemented in June 2019.

Continue to Provide Active Support for Mortgage Data Standardization Initiatives: • Continue implementation of the redesigned Uniform Residential Loan Application, the Uniform Loan Application Dataset, and the Enterprises' respective Automated Underwriting Systems specifications. • Assess and, as appropriate, continue implementation of strategies to redesign the Uniform Appraisal Dataset and forms.	**The objective was completed.** FHFA acknowledged Fannie Mae's cooperation, collaboration and engagement on the Uniform Loan Application Dataset and Uniform Appraisal Dataset.

Assessment of Corporate Performance against 2019 Board of Directors' Goals

In January 2019, the Board of Directors established the 2019 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 Chief Executive Officer, for purposes of the individual performance-based component of the named executives' 2019 at-risk deferred salary.

In December 2019 and January 2020, the Compensation Committee reviewed our performance against the 2019 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. The Compensation Committee considered management's assessment of its performance against the goals and also discussed the company's performance with our Chief Executive Officer and President. The Compensation Committee also discussed the performance of each named executive (other than the Chief Executive Officer) with our Chief Executive Officer.

The Compensation Committee concluded that management performed well against the 2019 scorecard and Board of Directors' goals. Fannie Mae met or exceeded all of the objectives that comprise the 2019 scorecard and nearly all of the objectives that comprise the Board of Directors' goals. In assessing management's performance, the Compensation Committee recognized management's many accomplishments during 2019, including successfully launching the Single Security Initiative, developing a more customer-centric strategy, implementing a digital operating model for the Single-Family business, enhancing workplace collaboration and innovation, and laying the groundwork for a potential exit from conservatorship. The Compensation Committee also acknowledged that the Board of Directors' goal relating to regulatory requirements was not fully achieved and changes in market conditions during the year resulted in adjustments to the company's duty to serve objectives and single-family acquisition Board risk limit. The Compensation Committee concluded that, in light of the company's many accomplishments in 2019, the company should be meaningfully credited for its achievements in 2019, as well as for its resilience in the face of significant changes in 2019.

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 January 2020, following its review of management's and the company's performance in 2019, 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 2019 Board of Directors' goals was 100% overall. The Compensation Committee and the Board of Directors also assessed the 2019 individual performance of each named executive at this time. Following these assessments, the Compensation Committee recommended and the Board of Directors determined each eligible named executive's individual performance-based at-risk deferred salary amount for 2019, as described in "Assessment of 2019 Individual Performance" below.

The Compensation Committee provided FHFA with its assessments of corporate performance against the 2019 Board of Directors' goals and its qualitative assessments of management's performance against the 2019 scorecard objectives. In January 2020, FHFA approved the performance-based at-risk deferred salary payments for the eligible named executives.

The table below sets forth our 2019 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
Goals Relating to Strategic Objectives	
Advancing a sustainable and reliable business model with low risk to the housing finance system and taxpayers.	**The goal was achieved.** We met all of our objectives relating to this strategic goal, including our objectives for single-family and multifamily credit risk transfers, return on conservator capital for single-family and multifamily acquisitions, single-family and multifamily market share, and managing our business within Board-approved risk limits.
Providing great service to our customers and partners, enabling them to serve the needs of American households more effectively.	**The goal was achieved.** We met our customer satisfaction objectives relating to this strategic goal.
Supporting and sustainably increasing access to credit and affordable housing.	**The goal was achieved.** We believe we met all of our objectives relating to this strategic goal, including our single-family and multifamily housing goals, and our duty to serve obligations. FHFA will make the final determination on whether we have met our 2019 housing goals and duty to serve obligations.
Building a simple, efficient, innovative, and continuously improving company.	**The goal was achieved.** We met all of our objectives relating to this strategic goal, including our objectives relating to managing expenses, employee engagement, and the diversity of our workforce, suppliers, financial transaction partners and borrowers.

Board of Directors' Goals	Assessment of Performance
Goal Relating to Regulatory Requirements	
Resolve all Fannie Mae-identified medium- and high-priority audit and compliance issues, and FHFA-identified risk and control matters, within established timeframes or mutually acceptable extensions.	**The goal was not fully achieved.** Although we resolved all Fannie Mae-identified medium- and high-priority audit and compliance issues and nearly all FHFA-identified risk and control matters within established timeframes or mutually acceptable extensions, two FHFA-identified risk and control matters were not resolved within established timeframes.
Goal Relating to Success in Reaching Strategic Priorities and Core Business Tactics	
Assessment of progress towards strategic priorities and core business tactics.	**The goal was achieved.** We met all of our objectives relating to this strategic goal, including: • successfully launched the Single Security Initiative; • created a digital modernization plan; • improved our single-family and multifamily customer delivery models; and • continued to implement plans designed to improve the effectiveness of our organization.

Assessment of 2019 Individual Performance

Half of each of eligible named executive's 2019 at-risk deferred salary was subject to reduction based on individual performance in 2019, as determined by the Board of Directors with FHFA's approval. The Board of Directors assessed the performance of our Chief Executive Officer, who does not receive at-risk deferred salary, against goals prepared for the Chief Executive Officer, with input from the Compensation Committee. The Board of Directors assessed the performance and approved compensation for our other named executives with input from both the Compensation Committee and the Chief Executive Officer.

The Board's determinations regarding each eligible named executive's individual performance-based at-risk deferred salary for 2019 and highlights of each named executive's performance in 2019 are discussed below. As noted in "Assessment of Corporate Performance against 2019 Board of Directors' Goals" above, FHFA approved the performance-based at-risk deferred salary payments for the eligible named executives in January 2020.

Hugh Frater

Chief Executive Officer

Mr. Frater became our Chief Executive Officer in March 2019, and had previously been serving as our Interim Chief Executive Officer since October 2018. Mr. Frater provided outstanding leadership to the company in 2019. His 2019 accomplishments included:

- overseeing management's work to achieve the objectives set forth in the 2019 scorecard and 2019 Board of Directors' goals, which we refer to jointly in this discussion as the company's 2019 goals;
- under his leadership, the company continued to operate profitably, and deliver quality services and products in a disciplined, risk-controlled environment;
- providing leadership and direction to the company in the development, oversight and execution of the company's strategic objectives;
- working with the Management Committee to revise the company's strategic plan and objectives for 2020-2022 to prepare and better position the company for a potential exit from conservatorship;
- improving the organization's culture and employee morale through his transparent and non-hierarchical leadership style, as well as engagement with the broader employee base and key functional and business leaders;
- strengthening the company's reputation through active engagement with external constituencies, including FHFA, Treasury, customers, debt and MBS investors, and mortgage industry leaders; and
- as a member of the Board of Directors, chartering and becoming a member of a new Board Committee —the Community Responsibility and Sustainability Committee—focused on our mission-oriented efforts and our commitment to becoming a leading ESG company.

David Benson *President*	The Board determined that Mr. Benson's individual performance-based at-risk deferred salary for 2019 would be paid at 95% of his target. Mr. Benson's continued strong leadership in 2019 was critical to the company's success in achieving the 2019 goals during a period of significant change. His 2019 accomplishments included: • facilitating the seamless transition to our new Chief Executive Officer and new leadership at FHFA while meeting or exceeding our primary goals and objectives; • building cohesion and alignment among the Management Committee and helping Management Committee members set and achieve goals; • facilitating changes to our single-family underwriting and eligibility guidelines to reduce risk to our business and improve returns; • working on a cross-functional effort to increase the amount of credit risk transferred on multifamily loans; • evolving the company's strategy towards a more commercial future; • increasing the focus of the Management Committee on human capital management; and • as a Board member and Board Chair of CSS, helping to lead the successful launch of the Single Security Initiative.
Celeste Brown *Executive Vice President and Chief Financial Officer*	The Board determined that Ms. Brown's individual performance-based at-risk deferred salary for 2019 would be paid at 100% of her target. Ms. Brown's many accomplishments in 2019 provided critical support to Fannie Mae's achievement of the company's 2019 goals. Her 2019 accomplishments included: • implementing structures to prepare for a potential exit from conservatorship; • strengthening the company's budget and planning process; • continuing to improve the company's capital management processes; • continuing to focus on managing expenses and increasing cost transparency and cost discipline; • key role in developing the company's 2020-2022 strategic plan and objectives; • establishing a group focused on the company's new ESG priority; • developing and recruiting key talent in the Finance organization, and continuing to make organizational changes to improve the division; and • effectively engaging with FHFA on capital, liquidity and strategic topics.
Andrew Bon Salle *Executive Vice President—Single-Family Mortgage Business*	The Board determined that Mr. Bon Salle's individual performance-based at-risk deferred salary for 2019 would be paid at 95% of his target. Mr. Bon Salle's strong leadership of the Single-Family business in 2019 contributed to the company's achievement of its 2019 goals in a number of significant ways. His 2019 accomplishments included: • implementing changes to our single-family underwriting and eligibility guidelines that reduced risk to our business and improved returns, while maintaining strong market share; • continuing to work on initiatives to improve operations and enhance technology in the Single-Family business and other areas of the company; • instrumental role in the successful implementation of the Single Security Initiative; • meeting FHFA's objectives relating to mortgage servicing, servicer eligibility, mortgage data standardization initiatives, the neighborhood stabilization initiative, and supporting access to single-family mortgage credit for creditworthy borrowers; • meeting all single-family housing goals; • exceeding the objectives for single-family credit risk transfer transactions; and • further driving the customer-centric culture change throughout the Single-Family organization, resulting in a higher level of customer satisfaction.

Jeffery Hayward *Executive Vice President and Head of Multifamily*	The Board determined that Mr. Hayward's individual performance-based at-risk deferred salary for 2019 would be paid at 95% of his target. Mr. Hayward's strong leadership of the Multifamily business in 2019 contributed to the company's achievement of its 2019 goals in a number of significant ways. His 2019 accomplishments included: • maintaining strong profitability and market share in our Multifamily business while operating it in a safe and sound manner; • continuing to grow the multifamily guaranty book of business within the limits set by FHFA; • continuing to work on initiatives to improve operations and enhance technology in the Multifamily business; • meeting all multifamily housing goals and the company's duty to serve objectives, and continuing to lead the company's affordable housing and housing supply efforts; • exceeding the objectives for multifamily credit risk transfer transactions, including completing the company's first multifamily CAS transaction; • helping to establish the company's new ESG priority; and • further driving the customer-centric culture change throughout the Multifamily organization, resulting in a higher level of customer satisfaction.

Other Executive Compensation Considerations

Role of Compensation Consultants

The Compensation Committee's independent compensation consultant is Frederic W. Cook & Co., Inc. ("FW Cook"). Management's outside compensation consultant is McLagan.

For 2019, consultants from FW Cook attended meetings and advised the Compensation Committee and the Board of Directors on various executive compensation matters, including:

- preparing an analysis of compensation for our Chief Executive Officer 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;
- preparing a report on the compensation of our Board of Directors in comparison to companies in our primary comparator group and other market trends, in response to a request from the Nominating and Corporate Governance Committee;
- reviewing McLagan's analysis of market compensation data for select senior management positions;
- reviewing various management proposals relating to compensation structures and levels, and for new hires and promotions;
- reviewing our risk assessment of our 2019 compensation program;
- assisting the Compensation Committee in its evaluation of our performance against the 2019 scorecard and communicating its views to FHFA;
- assisting the Compensation Committee in its evaluation of our performance against the 2019 Board of Directors' goals;
- facilitating the Compensation Committee's evaluation of our Chief Executive Officer's performance;
- informing the Compensation Committee of regulatory updates and market trends in compensation and benefits; and
- assisting with the preparation of executive compensation disclosure in our Annual Report on Form 10-K.

For 2019, consultants from McLagan attended meetings as needed and advised management and the Compensation Committee on various compensation and human resources matters, including:

- providing guidance and feedback on our 2019 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 (other than the Chief Executive Officer and Chief Financial Officer); 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

Pursuant to SEC and NYSE rules, the Compensation Committee assessed the independence of FW Cook and McLagan most recently in January 2020. Based on its assessments, the Compensation Committee determined that FW Cook is independent from Fannie Mae management and has no conflicts of interest.

Because McLagan was retained by and provides services to management, it is not an independent advisor. McLagan's work raises no material conflicts of interest, and we believe 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. In 2019, the Compensation Committee used benchmark compensation data as one of a number of factors that informed 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. We believe 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 for 2019 compensation benchmarking, which was developed and approved by FHFA and the Compensation Committee in 2017, consisted of the following 25 companies:

- The Allstate Corporation
- Ally Financial Inc.
- American International Group, Inc.
- American Express Company
- The 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
- The Hartford Financial Services Group, Inc.
- KeyCorp
- Mastercard Incorporated
- MetLife, Inc.
- Northern Trust Corporation
- The 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.

In December 2019, two of these companies—BB&T Corporation and SunTrust Banks, Inc.—completed a merger and became Truist Financial Corporation. This did not impact 2019 compensation benchmarking.

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 or different group of companies. The company believes this more comprehensive approach results in more reliable market data.

As described in "Role of Compensation Consultants" above, in 2019, FW Cook and McLagan prepared compensation benchmarking data for the named executives and other senior management positions. The named executives' 2019 total target direct compensation was compared with 2018 compensation for the comparable position at other companies as follows:

- The compensation of our Chief Executive Officer (Mr. Frater) and Chief Financial Officer (Ms. Brown) was benchmarked against our primary comparator group identified above;
- The compensation of our President (Mr. Benson) was benchmarked against our primary comparator group to the extent those companies had a President position (11 of the 25 companies); 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 five of the companies in our primary comparator group (Ally Financial Inc., Freddie Mac, The PNC Financial Services Group, Inc., SunTrust Banks, Inc. and U.S. Bancorp), a group of large banks (Bank of America Corporation, Citigroup Inc., JPMorgan Chase & Co. and Wells Fargo & Company), and certain other U.S.-based financial services firms, specialty mortgage lending organizations and commercial real estate firms, to the extent those firms have executives in comparable positions.

Members of the Compensation Committee reviewed and discussed this data in late 2019.

Compensation Recoupment Policy

A portion of our executive officers' compensation is subject to forfeiture or repayment upon the occurrence of specified events. We provide a summary of these repayment provisions, also known as "clawback" provisions, in the table below. The full text of the company's repayment provisions is provided in Exhibit 10.1 to this report. These provisions do not apply to executive officers serving on an interim basis.

Forfeiture Event	Compensation Subject to Forfeiture/Repayment
Materially Inaccurate Information	
The executive officer has been granted deferred salary or incentive payments based on materially inaccurate financial statements or any other materially inaccurate performance metric criteria.	Amounts of deferred salary and incentive payments granted in excess of the amounts the Board of Directors determines would likely have been granted using accurate metrics.
Termination for Cause	
The executive officer's employment is terminated for cause. For a description of what constitutes termination for cause, see "Potential Payments Upon Termination or Change-in-Control—Potential Payments to Named Executives."	All deferred salary and incentive payments that have not yet become payable.
Subsequent Determination of Cause	
The Board of Directors later determines (within a specified period of time) that the executive officer could have been terminated for cause and that the officer's actions materially harmed the business or reputation of the company.	Deferred salary and incentive payments to the extent the Board of Directors deems appropriate.
Willful Misconduct	
The executive officer's employment: • is terminated for cause (or the Board of Directors later determines that cause for termination existed within a specified period of time) due to willful misconduct in connection with the performance of his or her duties for the company; and • the Board of Directors determines this has materially harmed the business or reputation of the company.	All deferred salary and incentive payments that have not yet become payable, and, to the extent the Board of Directors deems appropriate, deferred salary and annual incentives or long-term awards paid in the two-year period prior to the officer's employment termination date.

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 Policy

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.

Hedging Policy

All Fannie Mae employees, officers and directors 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. All Fannie Mae employees, officers and directors are also prohibited from engaging in hedging transactions relating to Fannie Mae's securities, such as prepaid variable forwards, equity swaps, collars and exchange funds, and other derivatives.

Tax Deductibility of our Compensation Expenses

Subject to a limited exception for binding contracts in effect on November 2, 2017 that are eligible for grandfathering, Section 162(m) of the Internal Revenue Code imposes a $1 million limit on the amount of total 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) as an employee of the company 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 Annual Report on 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 Annual Report on Form 10-K.

Compensation Committee:

Diane C. Nordin, Chair
Robert H. Herz, Vice Chair
Sheila C. Bair
Michael J. Heid
Karin J. Kimbrough
Ryan A. Zanin

Compensation Risk Assessment

Our Enterprise Risk Management division conducted a risk assessment of our 2019 employee compensation policies and practices. In conducting this risk assessment, the division reviewed the following, among other things:

- our performance goals and performance appraisal process;
- our compensation structure (including pay mix and severance arrangements);
- our compensation clawback provisions;
- the $600,000 limit on annual direct compensation for our Chief Executive Officer; and
- the oversight of aspects of our compensation by the Compensation Committee, the Board of Directors and FHFA.

The division also assessed whether mitigating factors existed that would reduce the opportunity for inappropriate risk-taking within our compensation policies and practices. Our Chief Risk Officer discussed the risk assessment of the company's 2019 compensation policies and practices with the Compensation Committee.

Based on the risk assessment, management concluded that our 2019 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 2019 scorecard objectives and Board of Directors' goals are not designed to incentivize employees to engage in activities outside our Code of Conduct, risk appetite or any other activity that would involve taking inappropriate risk or result in a material adverse effect on the company;
- our Board risk limits define the maximum amount of risk the company is willing to take in pursuit of its objectives, and the company regularly monitors and reports on these limits; 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's compensation under the Equity in Government Compensation Act of 2015 continues to be a risk factor for the company. We may be unable to retain our Chief Executive Officer, engage in effective succession planning or attract qualified candidates for this critical role. The risk assessment also noted that additional restrictions on compensation imposed by FHFA directives in late 2019 could affect our ability to attract and retain senior management. As discussed in "Risk Factors," the conservatorship, the uncertainty of our future and limitations on our 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.

Compensation Tables and Other Information

Summary Compensation Table

The following table shows summary compensation information for the named executives.

Summary Compensation Table for 2019, 2018 and 2017

		Salary					
Name and Principal Position[1]	Year	Base Salary[2]	Fixed Deferred Salary (Service-Based)[3]	Bonus[4]	Non-Equity Incentive Plan Compensation[5]	All Other Compensation[6]	Total
Hugh Frater	**2019**	**$ 600,000**	**$ —**	**$ —**	**$ —**	**$ 71,104**	**$ 671,104**
Chief Executive Officer	2018	113,077	—	—	—	139,615	252,692
Celeste Brown	**2019**	**569,231**	**1,229,231**	**700,000**	**722,336**	**107,164**	**3,327,962**
Executive Vice President and Chief Financial Officer	2018	505,769	794,615	700,000	562,212	549,475	3,112,071
David Benson	**2019**	**600,000**	**1,920,000**	**—**	**984,782**	**121,948**	**3,626,730**
President	2018	600,000	1,669,615	—	981,252	135,535	3,386,402
	2017	600,000	1,500,000	—	903,825	150,875	3,154,700
Andrew Bon Salle	**2019**	**500,000**	**1,775,000**	**—**	**889,039**	**108,341**	**3,272,380**
Executive Vice President	2018	500,000	1,741,346	—	969,030	97,824	3,308,200
—Single-Family Mortgage Business	2017	500,000	1,578,462	—	894,556	89,208	3,062,226
Jeffery Hayward	**2019**	**500,000**	**1,460,000**	**—**	**765,941**	**99,291**	**2,825,232**
Executive Vice President	2018	500,000	1,209,615	—	739,140	112,991	2,561,746
and Head of Multifamily	2017	498,077	1,033,846	—	659,328	122,086	2,313,337

(1) The principal position for each named executive is the position he or she held on December 31, 2019.

(2) Amounts shown in this sub-column consist of base salary paid during the year on a bi-weekly basis.

(3) Amounts shown in this sub-column consist of the fixed, service-based portion of deferred salary. Deferred salary shown for 2019 generally will be paid in four equal installments in March, June, September and December 2020. 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 2019, this rate is 1.315% per year. For deferred salary earned in 2018 and 2017, this rate was 0.88% and 0.425% per year, respectively. Interest on the named executives' fixed deferred salary is shown in the "All Other Compensation" column. Deferred salary shown for 2018 was paid to our named executives during 2019, and deferred salary shown for 2017 was paid to our named executives during 2018.

(4) The amounts shown in this column consist of the second and third installments of Ms. Brown's sign-on award. See "Compensation Discussion and Analysis —Determination of 2019 Compensation—Certain Named Executive Compensation Arrangements—Chief Financial Officer" above for more information regarding Ms. Brown's sign-on award.

(5) Amounts shown in this column consist of the performance-based at-risk portion of deferred salary earned during the year and interest payable on that deferred salary. The table below provides more detail on the 2019 at-risk deferred salary awarded to our named executives.

Performance-Based At-Risk Deferred Salary

Name	2019 Corporate Performance-Based At-Risk Deferred Salary	2019 Individual Performance-Based At-Risk Deferred Salary	Interest Payable on 2019 At-Risk Deferred Salary	Total
Hugh Frater	$ —	$ —	$ —	$ —
Celeste Brown	327,577	385,384	9,375	722,336
David Benson	459,000	513,000	12,782	984,782
Andrew Bon Salle	414,375	463,125	11,539	889,039
Jeffery Hayward	357,000	399,000	9,941	765,941

(6) The table below provides more detail on the amounts reported for 2019 in the “All Other Compensation” column.

All Other Compensation

Name	Company Contributions to Retirement Savings (401(k)) Plan	Company Credits to Supplemental Retirement Savings Plan	Matching Charitable Award Program	Interest Payable on 2019 Fixed Deferred Salary	Relocation Benefits	Total
Hugh Frater	$ 22,400	$ 25,600	$ —	$ —	$ 23,104	$ 71,104
Celeste Brown	22,400	63,600	5,000	16,164	—	107,164
David Benson	22,400	73,600	700	25,248	—	121,948
Andrew Bon Salle	22,400	57,600	5,000	23,341	—	108,341
Jeffery Hayward	22,400	57,600	92	19,199	—	99,291

See “Pension Benefits” for the vesting provisions for company contributions to the Retirement Savings Plan and “Nonqualified Deferred Compensation” for the vesting provisions for company credits to the Supplemental Retirement Savings Plan.

Amounts shown in the “Matching Charitable Award Program” column consist of gifts we made on behalf of our named executives under our matching charitable gifts program, under which gifts made by our employees and directors to Internal Revenue Code Section 501(c)(3) charities were matched, up to an aggregate total of $5,000 for the 2019 calendar year.

The amount shown in the “Relocation Benefits” column consists of relocation benefits provided to Mr. Frater in 2019 primarily relating to costs associated with temporary lodging in Washington, DC, relocation-related travel, and other similar expenses. We provided these benefits to Mr. Frater in connection with his hire in March 2019. These benefits will expire in 2020. These relocation benefits are conditioned on Mr. Frater’s continued employment with Fannie Mae for a minimum of 18 months from his start date as Chief Executive Officer. He must reimburse 100% of the relocation benefits paid to him if his employment terminates (either voluntarily or involuntarily due to misconduct) within 12 months, or 50% if his employment terminates from the 13th through the 18th month. We calculated the incremental cost of Mr. Frater’s relocation benefits based on actual cost (that is, the total amount of expenses incurred by us in providing the benefits), which includes fees and interest paid to the relocation benefit administrator.

Plan-Based Awards

The following table shows the at-risk deferred salary for each of the named executives during 2019. The terms of 2019 at-risk deferred salary are described in "Compensation Discussion and Analysis—2019 Executive Compensation Program; Chief Executive Officer Compensation—Elements of 2019 Executive Compensation Program—Direct Compensation." Deferred salary amounts shown represent only the performance-based at-risk portion of the named executives' 2019 deferred salary.

Grants of Plan-Based Awards in 2019

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards[1]		
Name	**Award Type**	**Threshold**	**Target**	**Maximum**
Hugh Frater	At-risk deferred salary—Corporate	$ —	$ —	$ —
	At-risk deferred salary—Individual	—	—	—
	Total at-risk deferred salary	**—**	**—**	**—**
Celeste Brown	At-risk deferred salary—Corporate	—	385,385	385,385
	At-risk deferred salary—Individual	—	385,384	385,384
	Total at-risk deferred salary	**—**	**770,769**	**770,769**
David Benson	At-risk deferred salary—Corporate	—	540,000	540,000
	At-risk deferred salary—Individual	—	540,000	540,000
	Total at-risk deferred salary	**—**	**1,080,000**	**1,080,000**
Andrew Bon Salle	At-risk deferred salary—Corporate	—	487,500	487,500
	At-risk deferred salary—Individual	—	487,500	487,500
	Total at-risk deferred salary	**—**	**975,000**	**975,000**
Jeffery Hayward	At-risk deferred salary—Corporate	—	420,000	420,000
	At-risk deferred salary—Individual	—	420,000	420,000
	Total at-risk deferred salary	**—**	**840,000**	**840,000**

(1) Amounts shown are the target amounts of the performance-based at-risk portion of the named executives' 2019 deferred salary. Half of 2019 at-risk deferred salary was subject to reduction based on corporate performance against the 2019 scorecard, as determined by FHFA, and half was subject to reduction based on individual performance in 2019, taking into account corporate performance against the 2019 Board of Directors' goals, as determined by the Board of Directors with FHFA's review. No amounts are shown in the "Threshold" column because deferred salary does not specify a minimum amount payable. The amounts shown in the "Maximum" column are the same as the amounts shown in the "Target" column because 2019 at-risk deferred salary was only subject to reduction; amounts higher than the target amount could not be awarded. The actual amounts of the at-risk portion of 2019 deferred salary that will be paid to the named executives for 2019 performance are included in the "Non-Equity Incentive Plan Compensation" column of the "Summary Compensation Table for 2019, 2018 and 2017."

Pension Benefits

Retirement Savings Plan

The Retirement Savings Plan is a tax-qualified defined contribution plan for which all of our employees are generally eligible that includes a 401(k) before-tax feature, a regular after-tax feature and a Roth after-tax feature. Under the plan, eligible employees may allocate investment balances to a variety of investment options. Subject to IRS limits for 401(k) plans, we make a contribution to the Retirement Savings Plan for our employees equal to 2% of salary and eligible incentive compensation, which includes the deferred salary element of our executive compensation program. Participants are fully vested in this 2% contribution after three years of service. In addition, we match in cash employee contributions up to 6% of base salary and eligible incentive compensation. Employees are 100% vested in our matching contributions.

Nonqualified Deferred Compensation

We provide nonqualified deferred compensation to the named executives pursuant to our Supplemental Retirement Savings Plan. Our Supplemental Retirement Savings Plan is an unfunded, non-tax-qualified defined contribution plan. The Supplemental Retirement Savings Plan is intended to supplement our Retirement Savings Plan, or 401(k) plan, by providing benefits to participants whose eligible earnings exceed the IRS annual limit on eligible compensation for 401(k) plans (for 2019, the annual limit was $280,000).

We credit 8% of the eligible compensation for our named executives that exceeds the applicable IRS annual limit. Eligible compensation in any year consists of base salary plus any eligible incentive compensation (which includes deferred salary) earned for that year, up to a combined maximum of two times base salary. The 8% credit consists of two parts: (1) a 2% credit that will vest after the participant has completed three years of service with us; and (2) a 6% credit that is immediately vested.

While the Supplemental Retirement Savings Plan is not funded, amounts credited on behalf of a participant under the Supplemental Retirement Savings Plan are deemed to be invested in mutual fund investments selected by the participant that are similar to the investments offered under our Retirement Savings Plan.

Amounts deferred under the Supplemental Retirement Savings Plan are payable to participants in the January or July following separation from service with us, subject to a six month delay in payment for our 50 most highly-compensated officers. Participants generally may not withdraw amounts from the Supplemental Retirement Savings Plan while they are employees.

The table below provides information on the nonqualified deferred compensation of the named executives in 2019, all of which was provided pursuant to our Supplemental Retirement Savings Plan.

Non-Qualified Deferred Compensation for 2019

Name	Company Contributions in 2019[1]	Aggregate Earnings in 2019[2]	Aggregate Balance at December 31, 2019[3]
Hugh Frater	$ 25,600	$ 1,059	$ 26,659
Celeste Brown	63,600	15,012	117,684
David Benson	73,600	56,214	740,138
Andrew Bon Salle	57,600	74,662	461,022
Jeffery Hayward	57,600	77,510	549,599

(1) All amounts reported in this column are also reported as 2019 compensation in the “All Other Compensation” column of the “Summary Compensation Table for 2019, 2018 and 2017.”

(2) None of the earnings reported in this column are reported as 2019 compensation in the “Summary Compensation Table for 2019, 2018 and 2017” because the earnings are neither above-market nor preferential.

(3) Amounts reported in this column reflect company contributions to the Supplemental Retirement Savings Plan that are also reported in the “All Other Compensation” column of the “Summary Compensation Table for 2019, 2018 and 2017” as follows:

Balance Amounts Reported in “All Other Compensation” in the Summary Compensation Table

Name	Amounts in Aggregate Balance Column that Represent Company Contributions Reported as Compensation for 2018 in the Summary Compensation Table	Amounts in Aggregate Balance Column that Represent Company Contributions Reported as Compensation for 2017 in the Summary Compensation Table
Hugh Frater	$ —	$ —
Celeste Brown	41,385	—
David Benson	92,500	111,600
Andrew Bon Salle	58,000	58,400
Jeffery Hayward	72,346	85,292

Potential Payments Upon Termination or Change-in-Control

The information below describes and quantifies certain compensation and benefits that would have become payable to each of our named executives under our existing plans and arrangements if the named executive's employment had terminated on December 31, 2019 under each of the circumstances described below, taking into account the named executive's compensation and service levels as of that date. The discussion below does not reflect retirement or deferred compensation plan benefits to which our named executives may be entitled, as these benefits are described above under "Pension Benefits" and "Nonqualified Deferred Compensation." The information below also does not generally reflect compensation and benefits available to all salaried employees upon termination of employment with us under similar circumstances. We are not obligated to provide any additional compensation to our named executives in connection with a change-in-control.

Potential Payments to Named Executives

We have not entered into agreements with any of our named executives that would entitle the executive to severance benefits. Under the 2019 executive compensation program, a named executive would be entitled to receive a specified portion of his or her earned but unpaid 2019 deferred salary if his or her employment was terminated for any reason, other than for cause.

Below we discuss various elements of the named executives' compensation that would become payable in the event a named executive dies, resigns, retires, terminates employment due to long-term disability, or the company terminates his or her employment. We then quantify the amounts that would be paid to our named executives in these circumstances, in each case assuming the triggering event occurred on December 31, 2019.

- *Deferred salary.* If a named executive is separated from employment with the company for any reason other than termination for cause, he or she would receive the following:
    - *Fixed deferred salary.* The earned but unpaid portion of his or her fixed deferred salary, reduced by 2% for each full or partial month by which the named executive's termination 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 earned deferred salary), except that the reduction will not apply if: (1) at the time of separation the named executive has reached age 62, or age 55 with 10 years of service with Fannie Mae, or (2) the named executive's employment terminates as a result of death or long-term disability.
    - *At-risk deferred salary.* The earned but unpaid portion of his or her at-risk deferred salary, subject to reduction from the target level for corporate and individual performance for the applicable performance year, except that the reduction will not apply if an officer's employment terminates as a result of death or long-term disability prior to the Board of Directors' and FHFA's determinations of performance for at-risk deferred salary.
    - *Interest on deferred salary.* Interest on deferred salary payments. 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.

  Payment dates. Installment payments of deferred salary and related interest would be made on the original payment schedule, except that payments will be made within 90 days in case of the named executive's death.

  Termination for cause. If a named executive's employment is terminated by the company for cause, he or she would not receive any of the earned but unpaid portion of his or her deferred salary. The company may terminate an executive for cause if it determines that the executive has: (a) materially harmed the company by, in connection with the 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.
- *Retiree medical benefits.* We currently make certain retiree medical benefits available to our full-time employees who meet certain age and service requirements at the time of retirement.

The table below shows the amounts that would have become payable to each of our named executives if his or her employment had terminated on December 31, 2019 for the reasons specified.

Potential Payments Upon Termination as of December 31, 2019

Name	2019 Fixed Deferred Salary[1]	2019 At-Risk Deferred Salary[2]	Interest on 2019 Deferred Salary[3]	Total
Hugh Frater				
Resignation, retirement, or termination without cause	$ —	$ —	$ —	$ —
Long-term disability	—	—	—	—
Death	—	—	—	—
Termination for cause	—	—	—	—
Celeste Brown				
Resignation, retirement, or termination without cause	909,631	712,961	21,337	1,643,929
Long-term disability	1,229,231	770,769	26,300	2,026,300
Death	1,229,231	770,769	15,755	2,015,755
Termination for cause	—	—	—	—
David Benson				
Resignation, retirement, or termination without cause	1,920,000	972,000	38,030	2,930,030
Long-term disability	1,920,000	1,080,000	39,450	3,039,450
Death	1,920,000	1,080,000	25,036	3,025,036
Termination for cause	—	—	—	—
Andrew Bon Salle				
Resignation, retirement, or termination without cause	1,313,500	877,500	28,812	2,219,812
Long-term disability	1,775,000	975,000	36,163	2,786,163
Death	1,775,000	975,000	22,950	2,772,950
Termination for cause	—	—	—	—
Jeffery Hayward				
Resignation, retirement, or termination without cause	1,460,000	756,000	29,140	2,245,140
Long-term disability	1,460,000	840,000	30,245	2,330,245
Death	1,460,000	840,000	19,194	2,319,194
Termination for cause	—	—	—	—

(1) In the case of resignation, retirement or termination without cause, Ms. Brown and Mr. Bon Salle each would have received 74% of her or his 2019 fixed deferred salary, which is the earned but unpaid portion of her or his 2019 fixed deferred salary as of December 31, 2019, reduced by 2% for each full or partial month by which the named executive's separation from employment preceded January 31, 2021. Mr. Benson and Mr. Hayward each would have received 100% of his 2019 fixed deferred salary, with no reduction, because Mr. Benson had reached age 55 with 10 years of service with Fannie Mae and Mr. Hayward had reached age 62.

(2) The amounts in this column in the event of resignation, retirement, or termination without cause reflect FHFA's and the Board's determinations of 2019 corporate performance-based at-risk deferred salary and 2019 individual performance-based at-risk deferred salary, as described in "Compensation Discussion and Analysis—Determination of 2019 Compensation." The amounts in this column in the event of a termination due to death or long-term disability do not reflect any performance-based reduction, because the hypothetical December 31, 2019 termination date occurred prior to FHFA's and the Board's performance determinations for at-risk deferred salary in January 2020.

(3) Interest payable on the deferred salary payments, which reflects that: (a) in the event of resignation, retirement, termination without cause, or long-term disability, installment payments of deferred salary would be paid on the original payment schedule; and (b) in the event of death, payments of deferred salary would be made within 90 days of the executive's death. The amount of interest payable in the event of death in this table assumes the payment of deferred salary would occur on the 90th day following the hypothetical December 31, 2019 date of death. Interest on 2019 deferred salary payments accrues at an annual rate of 1.315%.

Chief Executive Officer to Median Employee Pay Ratio

The following table shows the compensation paid to our Chief Executive Officer for 2019, the total 2019 compensation of our median employee (which was calculated based on the methodology described below the table), and the estimated ratio of the Chief Executive Officer's pay to the median employee's pay for 2019.

2019 Chief Executive Officer to Median Employee Pay Ratio

Individual	Compensation	Ratio
Chief Executive Officer	$ 671,104	4.5 to 1
Median Employee	150,098	

We took the following steps to identify our median employee and determine this employee's compensation:

- We identified our employee population as of December 31, 2019, which consisted of approximately 7,500 full-time and part-time employees. We did not include independent contractors in this population.
- For each employee (other than our Chief Executive Officer), we determined the sum of his or her base salary for 2019, performance awards for 2019 and the value of company contributions made in 2019 on his or her behalf to retirement plans. We did not annualize the compensation of employees who were employed for less than the full year, nor did we make any full-time equivalent adjustments to part-time employees.
- Comparing the sums, we identified an employee whose compensation best reflected Fannie Mae employees' median 2019 compensation (that is, the midpoint of employees ranked in order of compensation amount).
- We then determined that median employee's total 2019 compensation using the approach required by the SEC when calculating our named executives' compensation, as reported in the Summary Compensation Table.

In general, we offer employees base salary, the opportunity to receive awards for performance, company retirement plan contributions and other benefits. In accordance with SEC rules, the median employee compensation amount for 2019 provided in the table above consists of base salary, an award for 2019 performance, company retirement plan contributions and other benefits, but does not reflect benefits relating to group life or health plans generally available to all salaried employees or parking or transit benefits that are generally available to all salaried employees. The Chief Executive Officer compensation amount for 2019 provided in the table above consists of base salary, company retirement plan contributions and relocation benefits, and is the same amount reported in the Summary Compensation Table for 2019, 2018 and 2017.

Given the different methodologies that companies may use to determine their CEO pay ratios, the estimated ratio we report above may not be comparable to that reported by other companies.

Director Compensation

Overview

Our Corporate Governance Guidelines provide that compensation for members of the Board of Directors will be reasonable, appropriate, and commensurate with the duties and responsibilities of their Board service. Our non-management directors receive cash compensation pursuant to a program authorized by FHFA in November 2008. Mr. Frater, our Chief Executive Officer and a member of the Board of Directors, did not receive any additional compensation for his service as a director in 2019.

Board Compensation Levels

Board compensation levels under the program authorized by FHFA are shown in the table below. Our directors receive no equity compensation and no meeting fees.

Board Compensation Levels

Board Service		**Cash Compensation**
Annual retainer for non-executive Chair	$	290,000
Annual retainer for non-management directors (other than the non-executive Chair)		160,000
Committee Service		**Cash Compensation**
Annual retainer for Audit Committee Chair	$	25,000
Annual retainer for Risk Policy and Capital Committee Chair		15,000
Annual retainer for all other Committee Chairs		10,000
Annual retainer for Audit Committee members (other than the Audit Committee Chair)		10,000

Additional Arrangements with our Non-Management Directors

Expenses. We pay for or reimburse directors for out-of-pocket expenses incurred in connection with their service on the Board of Directors, including travel to and from our meetings, accommodations, meals and education.

Matching Charitable Gifts Program. To further our support for charitable giving, non-employee directors are able to participate in our corporate matching gifts program on the same terms as our employees.

Stock Ownership Guidelines for Directors. In 2009, our Board of Directors eliminated our stock ownership requirements for directors.

2019 Non-Management Director Compensation

The total 2019 compensation for our non-management directors is shown in the table below.

2019 Non-Management Director Compensation Table

Name		Fees Earned or Paid in Cash		All Other Compensation[1]		Total
Amy Alving	$	170,000	$	—	$	170,000
Sheila Bair[2]		58,495		—		58,495
Brian Brooks[3]		125,591		—		125,591
Renee Glover		170,000		—		170,000
Michael Heid		173,629		—		173,629
Robert Herz		185,000		3,500		188,500
Antony Jenkins		167,417		—		167,417
Karin Kimbrough[4]		133,008		—		133,008
Diane Nordin		180,000		—		180,000
Jonathan Plutzik		290,000		—		290,000
Manolo Sánchez		160,000		5,000		165,000
Ryan Zanin		175,000		—		175,000

(1) Amounts shown in the “All Other Compensation” column consist of gifts we made on behalf of the directors under our matching charitable gifts program, under which gifts made by our employees and directors to Internal Revenue Code Section 501(c)(3) charities were matched, up to an aggregate total of $5,000 for the 2019 calendar year.

(2) Ms. Bair joined Fannie Mae’s Board of Directors in August 2019.

(3) Mr. Brooks joined Fannie Mae’s Board of Directors in March 2019. Mr. Brooks was an executive officer of Fannie Mae from November 2014 to September 2018. During 2018, Mr. Brooks earned $1,300,048 in deferred salary which, according to its terms, was paid to him in three installments in March, June and September 2019. In addition, pursuant to the terms of the company’s Supplemental Retirement Savings Plan, Mr. Brooks received a lump sum payment of his balance in this plan in

July 2019 in the amount of $227,662. These amounts relating to Mr. Brooks's prior executive compensation that were paid in 2019 are excluded from the amounts in this table.

(4) Ms. Kimbrough joined Fannie Mae's Board of Directors in March 2019.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Beneficial Ownership

Stock Ownership of Directors and Executive Officers

The following table shows the beneficial ownership of our stock by each of our directors, each of our named executives, and all directors and executive officers as a group, as of February 1, 2020. As of that date, no director or named executive, nor all directors and executive officers as a group, owned as much as 1% of our outstanding common stock or any series of our preferred stock.

Beneficial Ownership of Stock by Directors and Executive Officers

		Number of Shares Beneficially Owned[1]	
Directors and Named Executives	**Position**	**8.25% Non-Cumulative Series T Preferred Stock**	**Common Stock**
Amy Alving	Director	0	0
Sheila Bair	Director	0	0
Brian Brooks	Director	0	0
Renee Glover	Director	0	0
Michael Heid	Director	0	0
Robert Herz	Director	0	0
Antony Jenkins	Director	0	0
Karin Kimbrough	Director	0	0
Diane Nordin	Director	0	0
Jonathan Plutzik	Director (Chair of the Board)	0	0
Manolo Sánchez	Director	0	0
Ryan Zanin	Director	0	0
Hugh Frater	Chief Executive Officer and Director	0	0
Celeste Brown	EVP—Chief Financial Officer	0	0
David Benson	President	0	0
Andrew Bon Salle	EVP—Single-Family Mortgage Business	1,000	0
Jeffery Hayward	EVP and Head of Multifamily	0	14,868
All directors and executive officers as a group (20 persons)		**1,000**	**21,537**

(1) Beneficial ownership is determined in accordance with the rules of the SEC for computing the number of shares of common stock beneficially owned by each person and the percentage owned. Each holder has sole investment and voting power over the shares referenced in this table.

Stock Ownership of Greater-Than 5% Holders

The following table shows the beneficial ownership of our common stock by the only persons or entities we know of that hold more than 5% of our common stock as of February 1, 2020.

Beneficial Ownership of Stock by 5%+ Holders

5% Holders	Common Stock Beneficially Owned	Percent of Class
U.S. Department of the Treasury	Variable[1]	79.9%
1500 Pennsylvania Avenue, NW, Washington, DC 20220		
Pershing Square Capital Management, L.P. **PS Management GP, LLC** **William A. Ackman**	115,569,796[2]	9.98%
888 Seventh Avenue, 42nd Floor, New York, New York 10019		

(1) In September 2008, we issued to Treasury a warrant to purchase, for one one-thousandth of a cent ($0.00001) per share, 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 at the time the warrant is exercised. The warrant may be exercised in whole or in part at any time until September 7, 2028. As of February 13, 2020, Treasury has not exercised the warrant. The information above assumes Treasury beneficially owns no other shares of our common stock.

(2) Information regarding these shares and their holders is based solely on information contained in a Schedule 13D filed with the SEC on November 15, 2013, as amended by an amendment to the Schedule 13D filed on March 31, 2014. The Schedule 13D and its amendment were filed by these holders as well as by Pershing Square GP, LLC. According to the original Schedule 13D, Pershing Square Capital Management, L.P., as investment adviser for a number of funds for which it purchased the shares reported in the table above, and PS Management GP, LLC, its general partner, may be deemed to share voting and dispositive power for the shares. Pershing Square GP, LLC, as general partner of two of the funds, may be deemed to share voting and dispositive power for 40,114,044 of the shares reported in the table above, which are held by the two funds. As the Chief Executive Officer of Pershing Square Capital Management, L.P. and managing member of each of PS Management GP, LLC and Pershing Square GP, LLC, William A. Ackman may be deemed to share voting and dispositive power for all of the shares reported in the table above. In the amendment, the parties further reported that certain of them had entered into swap transactions resulting in their having additional economic exposure to approximately 15,434,715 notional shares of common stock under certain cash-settled total return swaps, bringing their total aggregate economic exposure to 131,004,511 shares of common stock (approximately 11.31% of the outstanding common stock). In the amendment to the Schedule 13D, these parties indicated that they would forgo future reporting on Schedule 13D based on their determination that shares of the common stock are not voting securities as such term is used in Rule 13d-1(i) under the Securities Exchange Act. As a result, the information in the table above does not reflect any acquisitions or dispositions by these holders of Fannie Mae common stock that occurred after March 31, 2014.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Policies and Procedures Relating to Transactions with Related Persons

Overview. We review transactions in which Fannie Mae is a participant and in which any of our directors or executive officers or their immediate family members may have a material interest to determine whether any of those persons has a material interest in the transaction. Our current written policies and procedures for the review, approval or ratification of transactions with related persons that are required to be reported under Item 404(a) of Regulation S-K are set forth in our:

- Director Code of Conduct;
- Corporate Governance Guidelines;
- Nominating and Corporate Governance Committee Charter;
- Board of Directors' delegation of authorities and reservation of powers;
- Employee Code of Conduct; and
- Conflict of Interest Policy, Conflict of Interest Standard and Conflict of Interest Procedure for employees.

In addition, depending on the circumstances, relationships and transactions with related persons may require conservator decision pursuant to the instructions issued to the Board of Directors by the conservator or may require the consent of Treasury pursuant to the senior preferred stock purchase agreement.

Director Code of Conduct. Our Director Code of Conduct prohibits our directors from engaging in any conduct or activity that is inconsistent with our best interests, as defined by the conservator's express directions, its policies and applicable federal law. Our Director Code of Conduct requires each of our directors to excuse himself or herself from voting on any issue before the Board that could result in a conflict, self-dealing or other circumstance where the director's position as a director would be detrimental to us or result in a noncompetitive, favored or unfair advantage to either the director or the director's associates. In addition, our directors must disclose to the Chair of the Nominating and Corporate Governance Committee, or another member of the Committee, any situation that involves or appears to involve a conflict of interest. This includes, for example, any financial interest of a director, an immediate family member of a director or a business associate of a director in any transaction being considered by the Board, as well as any financial interest a director has in an organization doing business with us. Each of our directors also must annually certify compliance with our Director Code of Conduct.

Corporate Governance Guidelines; Board Delegation of Authorities and Reservation of Powers. Our Corporate Governance Guidelines provide that our Board of Directors, directly or through its committees, reviews and approves any action that in the reasonable business judgment of management at the time the action is taken is likely to cause significant reputational risk to Fannie Mae or result in substantial negative publicity. Our Board's delegation of authorities and reservation of powers similarly requires Board or Board committee approval for these actions. Depending on management's business judgment, this requirement might include a related party transaction.

Nominating and Corporate Governance Committee Charter; Board Delegation of Authorities and Reservation of Powers. The Nominating and Corporate Governance Committee Charter and our Board's delegation of authorities and reservation of powers require the Nominating and Corporate Governance Committee to approve any transaction with any director, nominee for director or executive officer, or any immediate family member of a director, nominee for director or executive officer, that is required to be disclosed pursuant to Item 404 of Regulation S-K.

Employee Code of Conduct. Our Employee Code of Conduct requires that our employees seek to avoid any actual or apparent conflicts between our business interests and the personal interests of our employees or their family members. Our Employee Code of Conduct requires our employees to raise any compliance or ethics concerns, including concerns relating to suspected or known violations of our Employee Code of Conduct, with the employee's manager, another appropriate member of management, a member of our Human Resources division or our Compliance and Ethics division.

Conflict of Interest Policy, Standard and Procedure. Our Conflict of Interest Policy, Conflict of Interest Standard and Conflict of Interest Procedure for employees requires that our executive officers report to the Compliance and Ethics division any existing or currently proposed transaction with us, whether or not in the ordinary course of business, in which the executive officer or any immediate family member of the executive officer has a direct or indirect interest. If the Compliance and Ethics division determines the reported transaction presents a conflict concern, our Conflict of Interest Procedure for employees provides that the division will submit its assessment and recommended mitigation activities regarding such transaction to the Nominating and Corporate Governance Committee for approval. Our Conflict of Interest Procedure for employees also provides that the Compliance and Ethics division will refer any such report to the Legal department for review so that they might evaluate it for reporting purposes.

Conservator Instructions. We are required by the conservator to obtain its decision for various matters, some of which may involve relationships or transactions with related persons. These matters include: actions requiring the consent of or consultation with Treasury under the senior preferred stock purchase agreement; the 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 in employee compensation that could significantly impact our employees; new compensation arrangements with or increases in compensation or benefits for our executive officers; setting or increasing the compensation or benefits payable to members of the Board; and 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.

Senior Preferred Stock Purchase Agreement. The senior preferred stock purchase agreement requires us to obtain written Treasury approval of transactions with affiliates unless, among other things, the transaction is upon terms no less favorable to us than would be obtained in a comparable arm's-length transaction with a non-affiliate or the transaction is undertaken in the ordinary course or pursuant to a contractual obligation or customary employment arrangement in existence at the time the senior preferred stock purchase agreement was entered into.

Director and Officer Disclosures. We require our directors and executive officers, not less than annually, to describe to us any transaction with us in which a director or executive officer could potentially have an interest that would require disclosure under Item 404 of Regulation S-K.

Transactions with Related Persons

Transactions with Treasury

Treasury beneficially owns more than 5% of the outstanding shares of our common stock by virtue of the warrant we issued to Treasury on September 7, 2008. The warrant entitles Treasury to purchase shares of our common stock equal to 79.9% of our outstanding common stock on a fully diluted basis on the date of exercise, for an exercise price of $0.00001 per share, and is exercisable in whole or in part at any time on or before September 7, 2028. We describe below our current agreements with Treasury, as well as payments we are making to Treasury pursuant to the Temporary Payroll Tax Cut Continuation Act of 2011 and the GSE Act.

FHFA, as conservator, approved the senior preferred stock purchase agreement, the amendments to the agreement and the letter agreements modifying the provisions of the senior preferred stock. FHFA, as conservator, also approved our role as program administrator for the Home Affordable Modification Program and other initiatives under the Making Home Affordable Program.

Treasury Senior Preferred Stock Purchase Agreement and Senior Preferred Stock

We issued the warrant to Treasury pursuant to the terms of the senior preferred stock purchase agreement we entered into with Treasury on September 7, 2008. Under the senior preferred stock purchase agreement, we also issued to Treasury one million shares of senior preferred stock. We issued the warrant and the senior preferred stock as an initial commitment fee in consideration of Treasury's commitment to provide funds to us under the terms and conditions set forth in the senior preferred stock purchase agreement. The senior preferred stock purchase agreement was subsequently amended on September 26, 2008, May 6, 2009, December 24, 2009 and August 17, 2012. In addition, we, through FHFA, in its capacity as conservator, and Treasury entered into letter agreements modifying the dividend and liquidation preference provisions of the senior preferred stock on December 21, 2017 and on September 27, 2019. In the September 2019 letter agreement, we and Treasury also agreed to negotiate and execute an additional amendment to the senior preferred stock purchase agreement that further enhances taxpayer protections by adopting covenants broadly consistent with recommendations for administrative reform contained in the Treasury plan. See "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements" for a description of the terms of the senior preferred stock purchase agreement, the senior preferred stock and the warrant.

As of December 31, 2019, we had received an aggregate of $119.8 billion from Treasury under the senior preferred stock purchase agreement, none of which was received in 2019, and the remaining amount of funding available to us under the agreement was $113.9 billion. Through December 31, 2019, we had paid an aggregate of $181.4 billion to Treasury in dividends on the senior preferred stock, $5.6 billion of which was paid in 2019.

Treasury Making Home Affordable Program

In 2009, Treasury launched the Making Home Affordable Program to help struggling homeowners avoid foreclosure and engaged us as program administrator for loans modified under the Home Affordable Modification Program, or HAMP, and other initiatives under the Making Home Affordable Program. HAMP was aimed at helping borrowers by modifying their mortgage loan to make their payments more affordable. In 2019, our principal activities as program administrator included:

- implementing the guidelines and policies of the Treasury program;
- supporting servicers and managing the process for servicers to report modification activity and program performance;
- calculating incentive compensation consistent with program guidelines;
- acting as record-keeper for executed loan modifications and program administration; and
- performing other tasks as directed by Treasury from time to time.

Although borrowers could apply for modifications under HAMP only through 2016, our role as program administrator continues in order to administer remaining incentives payable under the program and to continue record-keeping for completed modification activity and performance.

Under our arrangement, Treasury has compensated us for a significant portion of the work we have performed in our role as program administrator for HAMP and other initiatives under the Making Home Affordable Program. We expect we will have received an aggregate of approximately $523 million from Treasury for our work as program administrator from 2009 through 2019, as well as an additional amount of approximately $146 million for this period to be passed through to third-party vendors engaged by us for HAMP and other initiatives under the Making Home Affordable Program. We expect to continue to receive reimbursements from Treasury for our work through the completion of our role as program administrator.

Temporary Payroll Tax Cut Continuation Act of 2011

In December 2011, Congress enacted the Temporary Payroll Tax Cut Continuation Act of 2011 which, among other provisions, required that we increase our single-family guaranty fees by at least 10 basis points and remit this increase to Treasury. To meet our obligations under the TCCA and 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. 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 2019, we recognized $2.4 billion for our obligations to Treasury under the TCCA.

Treasury Interest in 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. In December 2014, FHFA directed us to set aside amounts for these contributions during 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 allocation or transfer would cause such a draw. We paid $215 million to the funds in 2019 based on our new business purchases in 2018. Pursuant to the GSE Act and directions from FHFA, we paid $75 million of this amount to Treasury's Capital Magnet Fund and $140 million of this amount to HUD's Housing Trust Fund.

Our new business purchases were $666.9 billion for the year ended December 31, 2019. Accordingly, we recognized an expense of $280 million related to this obligation for the year ended December 31, 2019. Of this amount, $98 million is payable to Treasury's Capital Magnet Fund and $182 million is payable to HUD's Housing Trust Fund. See "Business—Charter Act and Regulation—GSE Act and Other Legislation—Affordable Housing Allocations" for more information regarding the GSE Act's affordable housing allocation requirements.

Deferred Executive Compensation Payments to New Director

Brian Brooks joined Fannie Mae's Board of Directors in March 2019. Mr. Brooks was an executive officer of Fannie Mae from November 2014 to September 2018. During 2018, Mr. Brooks earned $1,300,048 in deferred salary which, according to its terms, was paid to him in three installments in March, June and September 2019. In addition, pursuant to the terms of the company's Supplemental Retirement Savings Plan, Mr. Brooks received a lump sum payment of his balance in this plan in July 2019 in the amount of $227,662.

Director Independence

Independence Requirements

Our Corporate Governance Guidelines, in accordance with FHFA corporate governance regulations, require a majority of Fannie Mae's directors to be independent as defined under the rules set forth by the NYSE, as amended from time to time. Where the NYSE rules do not address a particular relationship, the Board, based upon the recommendation of the Nominating and Corporate Governance Committee, determines whether a relationship is material, and whether a Board member is independent. Our Corporate Governance Guidelines also provide that an "independent board member" must be determined to have no material relationship with us, either directly or through an organization that has a material relationship with us. A relationship is "material" if, in the judgment of the Board, it would interfere with the Board member's independent judgment. Our Corporate Governance Guidelines are posted on our website, www.fanniemae.com, under "Governance" in the "About Us" section of our website.

In addition, under FHFA corporate governance regulations, Board committees are required to comply with the independence requirements set forth under NYSE rules. The NYSE's listing standards include additional independence criteria for members of the Audit Committee and Compensation Committee.

Our Board of Directors

Our Board of Directors, with the assistance of the Nominating and Corporate Governance Committee of the Board, has reviewed the independence of all current Board members pursuant to the requirements described in "Independence Requirements" above. Based on its review, the Board has determined that all of our directors are independent under these director independence requirements other than Mr. Brooks (who is a former employee of the company) and Mr. Frater (who is our Chief Executive Officer).

In determining the independence of our current Board members other than Mr. Brooks and Mr. Frater, the Board of Directors considered the following relationships, transactions or arrangements and determined they were not material to the independence of these Board members and would not interfere with the director's independent judgment:

- *Board Memberships with Business Partners.* Ms. Alving, Ms. Bair, Ms. Glover, Mr. Heid, Mr. Herz and Mr. Sánchez are directors or advisory Board members of companies that engage in business with Fannie Mae, that have an interest in one or more entities that engage in business with Fannie Mae or that may engage in business with Fannie Mae in the future. The Board considered that each of these directors was solely a director or advisory board member of such company, and not a current executive or employee of such company. The Board also considered other relevant information, including to the extent available information regarding payments between these companies and Fannie Mae during the past three years.
- *Board Memberships with Non-Profits to Which We Have Made Payments.* Mr. Herz and Ms. Nordin serve as Board or working group members of non-profit organizations that have received payments from Fannie Mae. The amount of these payments fell substantially below the NYSE independence standards' thresholds of materiality for a director who is a current employee of a company to which Fannie Mae made, or from which Fannie Mae received, payments.
- *Board Memberships with Companies that Invest in Our Securities.* Ms. Bair, Mr. Herz and Ms. Nordin serve as directors or advisory Board members of companies that invest in Fannie Mae fixed-income securities. It is generally not possible for Fannie Mae to determine the extent of the holdings of these companies in Fannie Mae fixed-income securities as payments to holders are made through the Federal Reserve, and most of these securities are held in turn by financial intermediaries. We understand that the investments by these companies in Fannie Mae fixed-income securities are entered into at arm's length in the ordinary course of business, upon market terms and conditions, and are not entered into at the direction of, or upon approval by, the director in his or her capacity as a director of these companies.
- *Prior Recent Employment with Business Partners.* Mr. Heid, Ms. Kimbrough and Mr. Sánchez were each recently employed at companies that engage in business with Fannie Mae.
    - Mr. Heid is a former employee of Wells Fargo, with which we regularly enter into a variety of transactions in the ordinary course of business. For example, Wells Fargo Bank, N.A., together with its affiliates, accounted for approximately 14% of our single-family business volume in 2019.
    - Ms. Kimbrough is a former employee of Google. Fannie Mae engages in business transactions with Google. The payments made by Fannie Mae to Google during the past three years fall below the NYSE independence standards' thresholds of materiality for a director who is a current employee of a company to which Fannie Mae made, or from which Fannie Mae received, payments. Ms. Kimbrough owns substantially less than 1% of the outstanding equity interests in Alphabet Inc., Google's parent company.
    - Mr. Sánchez is a former executive and director of Compass Bank, a U.S. subsidiary of BBVA, and also served as a director of Compass Bank's holding company BBVA Compass Bancshares, Inc. BBVA Compass is a single-family seller that engages in business transactions with Fannie Mae. Mr. Sánchez owns substantially less than 1% of the outstanding equity interests in BBVA.
- *Current Employment with Business Partner.* Ms. Kimbrough is currently an employee of LinkedIn Corporation, a subsidiary of Microsoft Corporation. Fannie Mae engages in business transactions with LinkedIn and Microsoft. The payments made by Fannie Mae to Microsoft during the past three years fall below the NYSE independence standards' thresholds of materiality for a director who is a current employee of a company to which Fannie Mae made, or from which Fannie Mae received, payments.
- *Prior Relationship with Company Engaged in Litigation with Fannie Mae.* Mr. Jenkins is a former Group Chief Executive Officer of Barclays PLC. Barclays Bank PLC is a defendant in a lawsuit the company filed in 2013 alleging the defendants manipulated LIBOR, as described in "Legal Proceedings—LIBOR Lawsuit." Mr. Jenkins is not a defendant in the lawsuit and the alleged wrongdoing at Barclays precedes Mr. Jenkins's appointment as Group Chief Executive Officer.
- *Prior Service on Fannie Mae's Digital Advisory Council*. Mr. Jenkins served as a member of Fannie Mae's Digital Advisory Council from February 2017 to June 2018 and received the standard advisory fee for this service of $60,000 per year. The amount of payments to Mr. Jenkins for his service on the Digital Advisory Council was below the $120,000 annual compensation threshold set forth in the NYSE's independence standards.

The Board also determined that each member of the Audit Committee, Compensation Committee, and Nominating and Corporate Governance Committee met the NYSE's independence criteria for members of such committees.

The Board did not consider the Board's duties to the conservator, together with the federal government's controlling beneficial ownership of Fannie Mae, in determining independence of the Board members.

Mr. Brooks is not considered an independent director under NYSE independence standards because he was an employee of the company within the last three years. Mr. Frater is not considered an independent director under NYSE independence standards because of his position as Chief Executive Officer.

Item 14. Principal Accounting Fees and Services

The Audit Committee of our Board of Directors is directly responsible for the appointment, oversight and evaluation of our independent registered public accounting firm, subject to conservator approval of matters relating to retention and termination. Deloitte & Touche LLP was our independent registered public accounting firm for the years ended 2019 and 2018. Deloitte & Touche LLP has advised the Audit Committee that they are independent accountants with respect to the company, within the meaning of standards established by the Public Company Accounting Oversight Board and federal securities laws administered by the SEC.

The following table displays the aggregate estimated or actual fees for professional services provided by Deloitte & Touche LLP, including audit fees.

	For the Year Ended December 31,	
	2019	**2018**
Description of fees:		
Audit fees	**$ 37,630,000**	$ 34,977,000
Audit-related fees[1]	**315,000**	252,000
Tax fees	**—**	—
All other fees[2]	**1,000**	117,000
Total fees	**$ 37,946,000**	$ 35,346,000

[1] Consists of fees billed for attest-related services on debt offerings and compliance with the covenants in the senior preferred stock purchase agreement with Treasury.

[2] Consists of fees billed for non-audit engagements and trainings.

Pre-Approval Policy

In accordance with its charter, the Audit Committee must approve, in advance of the service, all audit and permissible non-audit services to be provided by our independent registered public accounting firm and establish policies and procedures for the engagement of the external auditor to provide audit and permissible non-audit services. The independent registered public accounting firm and management are required to present reports on the nature of the services provided by the independent registered public accounting firm for the past year and the fees for such services, categorized into audit services, audit-related services, tax services and other services. The firm may not be retained to perform non-audit services specified in Section 10A(g) of the Exchange Act.

In connection with its approval of Deloitte & Touche LLP as Fannie Mae's independent registered public accounting firm for Fannie Mae's 2019 integrated audit, the Audit Committee delegated the authority to pre-approve any additional audit and audit-related services to its Chair, who was required to report any such pre-approvals at the next scheduled meeting of the Audit Committee. Additionally, any services provided by Deloitte & Touche LLP outside of the scope of the integrated audit must be approved by the conservator.

In 2019, we paid no fees to the independent registered public accounting firm pursuant to the *de minimis* exception established by the SEC, and all services were pre-approved.

PART IV

Item 15. Exhibits, Financial Statement Schedules

Documents filed as part of this report

Consolidated Financial Statements

An index to our consolidated financial statements has been filed as part of this report beginning on page F-1 and is incorporated herein by reference.

Financial Statement Schedules

None.

Exhibits

The table below lists exhibits that are filed with or incorporated by reference into this report.

Item	Description
3.1	Fannie Mae Charter Act (12 U.S.C. § 1716 et seq.) as amended through July 25, 2019 (Incorporated by reference to Exhibit 3.1 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed October 31, 2019)
3.2	Fannie Mae Bylaws, as amended through January 29, 2019 (Incorporated by reference to Exhibit 3.2 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2018, filed February 14, 2019)
4.1	Description of Securities of the Registrant
4.2	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series D (Incorporated by reference to Exhibit 4.1 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.3	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series E (Incorporated by reference to Exhibit 4.2 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.4	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series F (Incorporated by reference to Exhibit 4.3 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.5	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series G (Incorporated by reference to Exhibit 4.4 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.6	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series H (Incorporated by reference to Exhibit 4.5 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.7	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series I (Incorporated by reference to Exhibit 4.6 to Fannie Mae's registration statement on Form 10, filed March 31, 2003)
4.8	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series L (Incorporated by reference to Exhibit 4.7 to Fannie Mae's Quarterly Report on Form 10-Q, filed August 8, 2008)
4.9	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series M (Incorporated by reference to Exhibit 4.8 to Fannie Mae's Quarterly Report on Form 10-Q, filed August 8, 2008)
4.10	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series N (Incorporated by reference to Exhibit 4.9 to Fannie Mae's Quarterly Report on Form 10-Q, filed August 8, 2008)
4.11	Certificate of Designation of Terms of Fannie Mae Non-Cumulative Convertible Preferred Stock, Series 2004-1 (Incorporated by reference to Exhibit 4.10 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2009, filed February 26, 2010)
4.12	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series O (Incorporated by reference to Exhibit 4.11 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2009, filed February 26, 2010)
4.13	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series P (Incorporated by reference to Exhibit 4.12 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2012, filed April 2, 2013)
4.14	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series Q (Incorporated by reference to Exhibit 4.13 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2012, filed April 2, 2013)
4.15	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series R (Incorporated by reference to Exhibit 4.14 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2012, filed April 2, 2013)
4.16	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series S (Incorporated by reference to Exhibit 4.15 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2012, filed April 2, 2013)
4.17	Certificate of Designation of Terms of Fannie Mae Preferred Stock, Series T (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed May 19, 2008)

4.18	Amended and Restated Certificate of Designation of Terms of Variable Liquidation Preference Senior Preferred Stock, Series 2008-2, amended and restated as of September 30, 2019 (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed October 31, 2019)
4.19	Warrant to Purchase Common Stock, dated September 7, 2008 (Incorporated by reference to Exhibit 4.3 to Fannie Mae's Current Report on Form 8-K, filed September 11, 2008)
4.20	Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of September 26, 2008, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed October 2, 2008)
4.21	Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of May 6, 2009, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.21 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended March 31, 2009, filed May 8, 2009)
4.22	Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of December 24, 2009, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed December 30, 2009)
4.23	Third Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of August 17, 2012, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed August 17, 2012)
4.24	Letter Agreement between the United States Department of the Treasury and the Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator, dated December 21, 2017 (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Current Report on Form 8-K, filed December 21, 2017)
4.25	Letter Agreement between the United States Department of the Treasury and the Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator, dated September 27, 2019 (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Current Report on Form 8-K, filed October 1, 2019)
10.1	Repayment Provisions for SEC Executive Officers, amended and restated as of March 8, 2012† (Incorporated by reference to Exhibit 10.44 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, filed May 9, 2012)
10.2	Fannie Mae Form of Indemnification Agreement for directors and officers of Fannie Mae (Incorporated by reference to Exhibit 10.15 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2008, filed February 26, 2009.)
10.3	Fannie Mae Form of Indemnification Agreement for directors and officers of Fannie Mae (Incorporated by reference to Exhibit 10.2 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2016, filed February 17, 2017)
10.4	Fannie Mae Form of Indemnification Agreement for directors and officers of Fannie Mae (Incorporated by reference to Exhibit 10.3 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2018, filed February 14, 2019)
10.5	Form of Relocation Repayment Agreement for Officers of Fannie Mae† (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019, filed May 1, 2019)
10.6	Fannie Mae Supplemental Retirement Savings Plan, as amended through April 29, 2008† (Incorporated by reference to Exhibit 10.2 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008, filed August 8, 2008)
10.7	Amendment to Fannie Mae Supplemental Retirement Savings Plan, effective October 8, 2008† (Incorporated by reference to Exhibit 10.32 to Fannie Mae's Annual Report on Form 10-K for the year ended December 31, 2008, filed February 26, 2009)
10.8	Amendment to Fannie Mae Supplemental Retirement Savings Plan, effective May 14, 2010† (Incorporated by reference to Exhibit 10.2 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010, filed August 5, 2010)
10.9	Amendment to Fannie Mae Supplemental Retirement Savings plan for 2012 Executive Compensation Program, adopted May 18, 2012† (Incorporated by reference to Exhibit 10.3 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, filed August 8, 2012)
10.10	Amendment to Fannie Mae Supplemental Retirement Savings Plan, effective July 1, 2013† (Incorporated by reference to Exhibit 10.4 to Fannie Mae's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, filed November 7, 2013)
10.11	Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of September 26, 2008, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed October 2, 2008)
10.12	Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of May 6, 2009, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.21 to Fannie Mae's Quarterly Report on Form 10-Q, filed May 8, 2009)
10.13	Second Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of December 24, 2009, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed December 30, 2009)

10.14	Third Amendment to Amended and Restated Senior Preferred Stock Purchase Agreement, dated as of August 17, 2012, between the United States Department of the Treasury and Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator (Incorporated by reference to Exhibit 4.1 to Fannie Mae's Current Report on Form 8-K, filed August 17, 2012)
10.15	Letter Agreement between the United States Department of the Treasury and the Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator, dated December 21, 2017 (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Current Report on Form 8-K, filed December 21, 2017)
10.16	Letter Agreement between the United States Department of the Treasury and the Federal National Mortgage Association, acting through the Federal Housing Finance Agency as its duly appointed conservator, dated September 27, 2019 (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Current Report on Form 8-K, filed October 1, 2019)
10.17	Advisory Council Membership Agreement, dated as of February 3, 2017, by and between Fannie Mae and Antony Jenkins (Incorporated by reference to Exhibit 10.1 to Fannie Mae's Quarterly Report on Form 10-Q (Commission file number 000-50231) for the quarter ended June 30, 2018, filed August 2, 2018)
31.1	Certification of Chief Executive Officer pursuant to Securities Exchange Act Rule 13a-14(a)
31.2	Certification of Chief Financial Officer pursuant to Securities Exchange Act Rule 13a-14(a)
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350
99.1	Third Amended and Restated Limited Liability Company Agreement of Common Securitization Solutions, LLC, dated as of January 9, 2020
101. INS	Inline XBRL Instance Document* - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101. SCH	Inline XBRL Taxonomy Extension Schema*
101. CAL	Inline XBRL Taxonomy Extension Calculation*
101. DEF	Inline XBRL Taxonomy Extension Definition*
101. LAB	Inline XBRL Taxonomy Extension Label*
101. PRE	Inline XBRL Taxonomy Extension Presentation*
104	Cover Page Interactive Data File*—The Cover Page Interactive Data File does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document included as Exhibit 101

† This Exhibit is a management contract or compensatory plan or arrangement.

* The financial information contained in these XBRL documents is unaudited.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Federal National Mortgage Association

/s/ Hugh R. Frater

Hugh R. Frater
Chief Executive Officer

Date: February 13, 2020

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Hugh R. Frater and Celeste M. Brown, and each of them severally, his or her true and lawful attorney-in-fact with power of substitution and resubstitution to sign in his or her name, place and stead, in any and all capacities, to do any and all things and execute any and all instruments that such attorney may deem necessary or advisable under the Securities Exchange Act of 1934 and any rules, regulations and requirements of the U.S. Securities and Exchange Commission in connection with the Annual Report on Form 10-K and any and all amendments hereto, as fully for all intents and purposes as he or she might or could do in person, and hereby ratifies and confirms all said attorneys-in-fact and agents, each acting alone, and his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Jonathan Plutzik Jonathan Plutzik	Chair of the Board of Directors	February 13, 2020
/s/ Hugh R. Frater Hugh R. Frater	Chief Executive Officer and Director	February 13, 2020
/s/ Celeste M. Brown Celeste M. Brown	Executive Vice President and Chief Financial Officer	February 13, 2020
/s/ Chryssa C. Halley Chryssa C. Halley	Senior Vice President and Controller	February 13, 2020
/s/ Amy E. Alving Amy E. Alving	Director	February 13, 2020

Signature	Title	Date
/s/ Sheila C. Bair Sheila C. Bair	Director	February 13, 2020
/s/ Brian P. Brooks Brian P. Brooks	Director	February 13, 2020
/s/ Renee L. Glover Renee L. Glover	Director	February 13, 2020
/s/ Michael J. Heid Michael J. Heid	Director	February 13, 2020
/s/ Robert H. Herz Robert H. Herz	Director	February 13, 2020
/s/ Antony Jenkins Antony Jenkins	Director	February 13, 2020
/s/ Karin Kimbrough Karin Kimbrough	Director	February 13, 2020
/s/ Diane C. Nordin Diane C. Nordin	Director	February 13, 2020
/s/ Manuel Sánchez Rodríguez Manuel Sánchez Rodríguez	Director	February 13, 2020
/s/ Ryan A. Zanin Ryan A. Zanin	Director	February 13, 2020

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To Fannie Mae:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Fannie Mae and consolidated entities (in conservatorship) (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of operations and comprehensive income, cash flows, and changes in equity (deficit) for each of the three years in the period ended December 31, 2019, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 13, 2020, expressed an adverse opinion on the Company's internal control over financial reporting because of a material weakness.

Emphasis of a Matter

As discussed in Note 1 to the consolidated financial statements, the Company is currently under the control of its conservator and regulator, the Federal Housing Finance Agency (“FHFA”). Further, the Company directly and indirectly received substantial support from various agencies of the United States Government, including the United States Department of Treasury and FHFA. The Company is dependent upon continued support of the United States Government, various United States Government agencies and the Company’s conservator and regulator, FHFA.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. 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 audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Allowance for Loan Losses - Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

The Company’s allowance for loan losses is a valuation allowance that reflects an estimate of incurred credit losses related to its recorded investment in held for investment loans. The allowance for loan losses consists of a specific loss reserve for

individually impaired loans and a collective loss reserve for all other loans. The allowance for loan losses is determined based on internal models and management assumptions. The Company's internal models incorporate both historical loan performance data and market data to estimate incurred credit losses. In determining the collective reserve, the Company develops estimates such as default rates and loss severity in the event of default. To estimate the specific loss reserve, the Company primarily measures impairment using a discounted cash flow analysis. The cash flow analysis incorporates estimates produced by the Company's internal models which include the probability of prepayment, default rates and loss severity in the event of default.

We identified the allowance for loan losses as a critical audit matter because of the complexity of the Company's internal models and the significant assumptions used by management. Auditing the allowance for loan losses required a high degree of auditor judgment and an increased extent of effort, including the need to involve credit specialists when performing audit procedures to evaluate the reasonableness of management's models and assumptions.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the internal models and assumptions used by management to estimate the allowance for loan losses included the following, among others:

- We tested the effectiveness of controls over the allowance for loan losses, including those related to the internal models and significant management assumptions.
- With the assistance of our credit specialists, we evaluated the internal models and management's assumptions including inputs into and the resulting estimates of:
  - default rates and loss severity in the event of default for collectively assessed loans
  - the expected future cash flows for individually impaired loans, including estimates of the probability of prepayment, default rates and loss severity in the event of default
- We analyzed macroeconomic trends and changes in the Company's book of business in order to evaluate the appropriateness of management's assumptions.
- We compared model-produced estimates of prepayment, default rates and loss severity in the event of default to actual results over historical periods in order to evaluate key assumptions.

New Accounting Guidance - Accounting Standard Update 2016-13, Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments ("ASC 326") - Refer to Note 1 to the financial statements

Critical Audit Matter Description

The Company adopted ASC 326 on January 1, 2020. In accordance with Securities and Exchange Commission requirements, the Company has disclosed the impact that the adoption of the new accounting standard will have on its financial statements.

ASC 326 replaces the incurred loss impairment methodology for loans that are collectively evaluated for impairment with a methodology that reflects lifetime expected credit losses and requires consideration of a broader range of reasonable and supportable forecast information to develop credit loss estimates. To calculate the impact of the adoption of ASC 326, the Company used a discounted cash flow method to measure expected credit losses on its single-family mortgage loans and an undiscounted loss method to measure expected credit losses on its multifamily mortgage loans. The internal models used to estimate credit losses incorporate historical loan performance data, adjusted for current economic forecasts and the current credit profile of the Company's loan book of business. The models use reasonable and supportable forecasts for key economic drivers, such as home prices (single-family), rental income (multifamily) and capitalization rates (multifamily). The cash flow analysis incorporates estimates produced by the Company's internal models which include the probability of prepayment, default rates and loss severity in the event of default. Accordingly, the estimate of lifetime expected credit losses requires significant management judgment.

We identified the disclosure of the impact of the adoption of ASC 326 as a critical audit matter because of the complexity of the Company's internal models and the significant assumptions used by management to estimate the allowance for loan losses. Testing the impact of the adoption of ASC 326 required a high degree of auditor judgment and an increased extent of effort, including the need to involve credit specialists when performing audit procedures to evaluate the reasonableness of management's models and estimates.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the internal models and assumptions used by management to estimate the impact of the adoption of ASC 326 included the following, among others:

- We tested the effectiveness of internal controls, including those related to the internal models and significant management assumptions.
- With the assistance of our credit specialists, we evaluated the internal models and management's assumptions, including inputs into and the resulting estimates of the expected future cash flows, including the probability of prepayment, default rates and loss severity in the event of default.
- We tested the accuracy of historical loan performance data and current economic data consumed by the internal models used to calculate expected credit losses.
- We evaluated the appropriateness of economic and other forecasts used in internal models, including the reversion period applied for periods beyond the reasonable and supportable forecast period.

/s/ Deloitte & Touche LLP

McLean, Virginia

February 13, 2020

We have served as the Company's auditor since 2005.

FANNIE MAE

(In conservatorship)

Consolidated Balance Sheets

(Dollars in millions)

	As of December 31,	
	2019	2018
ASSETS		
Cash and cash equivalents	**$ 21,184**	$ 25,557
Restricted cash (includes $33,294 and $17,849, respectively, related to consolidated trusts)	**40,223**	23,866
Federal funds sold and securities purchased under agreements to resell or similar arrangements	**13,578**	32,938
Investments in securities:		
Trading, at fair value (includes $3,037 and $3,061, respectively, pledged as collateral)	**48,123**	41,867
Available-for-sale, at fair value	**2,404**	3,429
Total investments in securities	**50,527**	45,296
Mortgage loans:		
Loans held for sale, at lower of cost or fair value	**6,773**	7,701
Loans held for investment, at amortized cost:		
Of Fannie Mae	**94,911**	113,039
Of consolidated trusts	**3,241,494**	3,142,858
Total loans held for investment (includes $7,825 and $8,922, respectively, at fair value)	**3,336,405**	3,255,897
Allowance for loan losses	**(9,016)**	(14,203)
Total loans held for investment, net of allowance	**3,327,389**	3,241,694
Total mortgage loans	**3,334,162**	3,249,395
Deferred tax assets, net	**11,910**	13,188
Accrued interest receivable, net (includes $8,172 and $7,928, respectively, related to consolidated trusts)	**8,604**	8,490
Acquired property, net	**2,366**	2,584
Other assets	**20,765**	17,004
Total assets	**$ 3,503,319**	$ 3,418,318
LIABILITIES AND EQUITY		
Liabilities:		
Accrued interest payable (includes $9,361 and $9,133, respectively, related to consolidated trusts)	**$ 10,228**	$ 10,211
Debt:		
Of Fannie Mae (includes $5,687 and $6,826, respectively, at fair value)	**182,247**	232,074
Of consolidated trusts (includes $21,880 and $23,753, respectively, at fair value)	**3,285,139**	3,159,846
Other liabilities (includes $376 and $356, respectively, related to consolidated trusts)	**11,097**	9,947
Total liabilities	**3,488,711**	3,412,078
Commitments and contingencies (Note 16)	**—**	—
Fannie Mae stockholders' equity:		
Senior preferred stock (liquidation preference of $131,178 and $123,836, respectively)	**120,836**	120,836
Preferred stock, 700,000,000 shares are authorized—555,374,922 shares issued and outstanding	**19,130**	19,130
Common stock, no par value, no maximum authorization—1,308,762,703 shares issued and 1,158,087,567 shares outstanding	**687**	687
Accumulated deficit	**(118,776)**	(127,335)
Accumulated other comprehensive income	**131**	322
Treasury stock, at cost, 150,675,136 shares	**(7,400)**	(7,400)
Total stockholders' equity (See Note 1: Senior Preferred Stock Purchase Agreement, Senior Preferred Stock and Warrant for information on the related dividend obligation and liquidation preference)	**14,608**	6,240
Total liabilities and equity	**$ 3,503,319**	$ 3,418,318

See Notes to Consolidated Financial Statements

FANNIE MAE

(In conservatorship)

Consolidated Statements of Operations and Comprehensive Income

(Dollars and shares in millions, except per share amounts)

	For the Year Ended December 31,		
	2019	**2018**	**2017**
Interest income:			
Trading securities	**$ 1,627**	$ 1,336	$ 706
Available-for-sale securities	**175**	230	335
Mortgage loans	**116,764**	114,605	108,319
Federal funds sold and securities purchased under agreements to resell or similar arrangements	**843**	742	373
Other	**163**	136	123
Total interest income	**119,572**	117,049	109,856
Interest expense:			
Short-term debt	**(501)**	(468)	(250)
Long-term debt	**(98,109)**	(95,630)	(88,873)
Total interest expense	**(98,610)**	(96,098)	(89,123)
Net interest income	**20,962**	20,951	20,733
Benefit for credit losses	**4,011**	3,309	2,041
Net interest income after benefit for credit losses	**24,973**	24,260	22,774
Investment gains, net	**1,770**	952	1,522
Fair value gains (losses), net	**(2,214)**	1,121	(1,211)
Fee and other income	**1,176**	979	2,227
Non-interest income	**732**	3,052	2,538
Administrative expenses:			
Salaries and employee benefits	**(1,486)**	(1,451)	(1,328)
Professional services	**(967)**	(1,032)	(933)
Other administrative expenses	**(570)**	(576)	(476)
Total administrative expenses	**(3,023)**	(3,059)	(2,737)
Foreclosed property expense	**(515)**	(617)	(521)
Temporary Payroll Tax Cut Continuation Act of 2011 ("TCCA") fees	**(2,432)**	(2,284)	(2,096)
Other expenses, net	**(2,158)**	(1,253)	(1,511)
Total expenses	**(8,128)**	(7,213)	(6,865)
Income before federal income taxes	**17,577**	20,099	18,447
Provision for federal income taxes	**(3,417)**	(4,140)	(15,984)
Net income	**14,160**	15,959	2,463
Other comprehensive loss:			
Changes in unrealized gains on available-for-sale securities, net of reclassification adjustments and taxes	**(179)**	(344)	(206)
Other, net of taxes	**(12)**	(4)	—
Total other comprehensive loss	**(191)**	(348)	(206)
Total comprehensive income	**$ 13,969**	$ 15,611	$ 2,257
Net income	**$ 14,160**	$ 15,959	$ 2,463
Dividends distributed or amounts attributable to senior preferred stock	**(13,969)**	(12,613)	(8,944)
Net income (loss) attributable to common stockholders	**$ 191**	$ 3,346	$ (6,481)
Earnings (loss) per share:			
Basic	**$ 0.03**	$ 0.58	$ (1.12)
Diluted	**0.03**	0.57	(1.12)
Weighted-average common shares outstanding:			
Basic	**5,762**	5,762	5,762
Diluted	**5,893**	5,893	5,762

See Notes to Consolidated Financial Statements

FANNIE MAE
(In conservatorship)

Consolidated Statements of Cash Flows
(Dollars in millions)

	For the Year Ended December 31,		
	2019	**2018**	**2017**
Cash flows provided by (used in) operating activities:			
Net income	**$ 14,160**	$ 15,959	$ 2,463
Reconciliation of net income to net cash provided by operating activities:			
Amortization of cost basis adjustments	**(6,002)**	(5,949)	(6,641)
Benefit for credit losses	**(4,011)**	(3,309)	(2,041)
Valuation gains	**(1,809)**	(911)	(1,573)
Current and deferred federal income taxes	**1,517**	3,680	14,369
Net gains related to the disposition of acquired property and preforeclosure sales, including credit enhancements	**(917)**	(1,785)	(2,426)
Other, net	**(98)**	440	(406)
Net change in trading securities	**(1,630)**	(5,454)	4,511
Interest payment on discounted debt	**(5,964)**	(423)	(4,043)
Net cash provided by (used in) operating activities	**(4,754)**	2,248	4,213
Cash flows provided by investing activities:			
Proceeds from maturities and paydowns of trading securities held for investment	**58**	182	1,206
Proceeds from sales of trading securities held for investment	**49**	96	241
Proceeds from maturities and paydowns of available-for-sale securities	**469**	695	2,009
Proceeds from sales of available-for-sale securities	**537**	760	1,990
Purchases of loans held for investment	**(261,808)**	(172,155)	(189,593)
Proceeds from repayments of loans acquired as held for investment of Fannie Mae	**12,508**	15,082	22,557
Proceeds from sales of loans acquired as held for investment of Fannie Mae	**17,794**	17,511	10,241
Proceeds from repayments and sales of loans acquired as held for investment of consolidated trusts	**552,135**	401,045	435,637
Advances to lenders	**(141,395)**	(108,294)	(123,687)
Proceeds from disposition of acquired property and preforeclosure sales	**7,425**	9,321	12,221
Net change in federal funds sold and securities purchased under agreements to resell or similar arrangements	**19,360**	(13,468)	10,945
Other, net	**(80)**	78	641
Net cash provided by investing activities	**207,052**	150,853	184,408
Cash flows used in financing activities:			
Proceeds from issuance of debt of Fannie Mae	**789,572**	789,355	1,034,742
Payments to redeem debt of Fannie Mae	**(834,294)**	(834,366)	(1,082,427)
Proceeds from issuance of debt of consolidated trusts	**435,235**	357,846	383,793
Payments to redeem debt of consolidated trusts	**(575,706)**	(471,151)	(514,637)
Payments of cash dividends on senior preferred stock to Treasury	**(5,601)**	(9,372)	(12,015)
Proceeds from senior preferred stock purchase agreement with Treasury	**—**	3,687	—
Other, net	**480**	63	6
Net cash used in financing activities	**(190,314)**	(163,938)	(190,538)
Net increase (decrease) in cash, cash equivalents and restricted cash	**11,984**	(10,837)	(1,917)
Cash, cash equivalents and restricted cash at beginning of period	**49,423**	60,260	62,177
Cash, cash equivalents and restricted cash at end of period	**$ 61,407**	$ 49,423	$ 60,260
Cash paid during the period for:			
Interest	**$ 121,542**	$ 110,415	$ 109,480
Income taxes	**1,900**	460	3,090
Non-cash activities:			
Net mortgage loans acquired by assuming debt	**$ 273,174**	$ 231,478	$ 258,312
Net transfers from mortgage loans of Fannie Mae to mortgage loans of consolidated trusts	**248,463**	185,310	193,809
Transfers from advances to lenders to loans held for investment of consolidated trusts	**128,272**	102,865	118,282
Net transfers from mortgage loans to acquired property	**6,681**	8,131	10,262

See Notes to Consolidated Financial Statements

FANNIE MAE
(In conservatorship)

Consolidated Statements of Changes in Equity (Deficit)

(Dollars and shares in millions)

	Fannie Mae Stockholders' Equity (Deficit)									
	Shares Outstanding									
	Senior Preferred	Preferred	Common	Senior Preferred Stock	Preferred Stock	Common Stock	Accumulated Deficit	Accumulated Other Comprehensive Income	Treasury Stock	Total Equity (Deficit)
Balance as of December 31, 2016	**1**	**556**	**1,158**	**$ 117,149**	**$ 19,130**	**$ 687**	**$ (124,253)**	**$ 759**	**$ (7,401)**	**$ 6,071**
Senior preferred stock dividends paid	—	—	—	—	—	—	(12,015)	—	—	(12,015)
Comprehensive income:										
Net income	—	—	—	—	—	—	2,463	—	—	2,463
Other comprehensive income, net of tax effect:										
Changes in net unrealized gains on available-for-sale securities (net of taxes of $28)	—	—	—	—	—	—	—	53	—	53
Reclassification adjustment for gains included in net income (net of taxes of $139)	—	—	—	—	—	—	—	(259)	—	(259)
Total comprehensive income										2,257
Other	—	—	—	—	—	—	—	—	1	1
Balance as of December 31, 2017	**1**	**556**	**1,158**	**$ 117,149**	**$ 19,130**	**$ 687**	**$ (133,805)**	**$ 553**	**$ (7,400)**	**$ (3,686)**
Senior preferred stock dividends paid	—	—	—	—	—	—	(9,372)	—	—	(9,372)
Increase to senior preferred stock	—	—	—	3,687	—	—	—	—	—	3,687
Comprehensive income:										
Net income	—	—	—	—	—	—	15,959	—	—	15,959
Other comprehensive income, net of tax effect:										
Changes in net unrealized gains on available-for-sale securities (net of taxes of $21)	—	—	—	—	—	—	—	(79)	—	(79)
Reclassification adjustment for gains included in net income (net of taxes of $70)	—	—	—	—	—	—	—	(265)	—	(265)
Other (net of taxes of $0)	—	—	—	—	—	—	—	(4)	—	(4)
Total comprehensive income										15,611
Reclassification related to Tax Cuts and Jobs Act	—	—	—	—	—	—	(117)	117	—	—
Balance as of December 31, 2018	**1**	**556**	**1,158**	**$ 120,836**	**$ 19,130**	**$ 687**	**$ (127,335)**	**$ 322**	**$ (7,400)**	**$ 6,240**
Senior preferred stock dividends paid	**—**	**—**	**—**	**—**	**—**	**—**	**(5,601)**	**—**	**—**	**(5,601)**
Comprehensive income:										
Net income	**—**	**—**	**—**	**—**	**—**	**—**	**14,160**	**—**	**—**	**14,160**
Other comprehensive income, net of tax effect:										
Changes in net unrealized gains on available-for-sale securities (net of taxes of $0)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**1**	**—**	**1**
Reclassification adjustment for gains included in net income (net of taxes of $48)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(180)**	**—**	**(180)**
Other (net of taxes of $3)	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**(12)**	**—**	**(12)**
Total comprehensive income										**13,969**
Balance as of December 31, 2019	**1**	**556**	**1,158**	**$ 120,836**	**$ 19,130**	**$ 687**	**$ (118,776)**	**$ 131**	**$ (7,400)**	**$ 14,608**

See Notes to Consolidated Financial Statements

FANNIE MAE

(In conservatorship)

Notes to Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Organization

We are a stockholder-owned corporation organized and existing under the Federal National Mortgage Association Charter Act (the “Charter Act” or our “charter”). We are a government-sponsored enterprise (“GSE”), and we are subject to government oversight and regulation. Our regulators include the Federal Housing Finance Agency (“FHFA”), the U.S. Department of Housing and Urban Development (“HUD”), the U.S. Securities and Exchange Commission (“SEC”), and the U.S. Department of the Treasury (“Treasury”). The U.S. government does not guarantee our securities or other obligations.

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 (“MBS”) that we guarantee; 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 increase the supply of affordable housing.

We have two reportable business segments: Single-Family and Multifamily. The Single-Family business operates in the secondary mortgage market relating to loans secured by properties containing four or fewer residential dwelling units. The Multifamily business operates in the secondary mortgage market relating primarily to loans secured by properties containing five or more residential units. We describe the management reporting and allocation process used to generate our segment results in “Note 10, Segment Reporting.”

Conservatorship

On September 7, 2008, the Secretary of the Treasury and the Director of FHFA announced several actions taken by Treasury and FHFA regarding Fannie Mae, which included: (1) placing us in conservatorship and (2) the execution of a senior preferred stock purchase agreement by our conservator, on our behalf, and Treasury, pursuant to which we issued to Treasury both senior preferred stock and a warrant to purchase common stock.

Under 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 conservator immediately succeeded to (1) all rights, titles, powers and privileges of Fannie Mae, and of any stockholder, 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.

The conservator has the power to transfer or sell any asset or liability of Fannie Mae (subject to limitations and post-transfer notice provisions for transfers of qualified 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 Fannie Mae. 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.

On September 5, 2019, Treasury released a plan to reform the housing finance system. The Treasury Housing Reform Plan (the “Treasury plan”) is far-reaching in scope and could have a significant impact on our structure, our role in the secondary mortgage market, our capitalization, our business and our competitive environment. The Treasury plan includes recommendations relating to ending our conservatorship, amending our senior preferred stock purchase agreement with Treasury, considering additional restrictions and requirements on our business, and many other matters. The Treasury plan recommends that Treasury’s commitment to provide funding under the senior preferred stock purchase agreement should be replaced with legislation that authorizes an explicit, paid-for guarantee backed by the full faith and credit of the Federal Government that is limited to the timely payment of principal and interest on qualifying MBS. The Treasury plan further recommends that, pending legislation, even after conservatorship Treasury should maintain its ongoing commitment to support our single-family and multifamily mortgage-backed securities through the senior preferred stock purchase agreement, as amended as contemplated by the plan.

The conservatorship has no specified termination date and there continues to be significant uncertainty regarding our future, including how long we will continue to exist in our current form, the extent of our role in the market, the level of government support of our business, 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. 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 or if we have not been paying our debts, in either case, for a period of 60 days. In addition, the Director of FHFA may place us into receivership at his discretion 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. 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. Treasury has made a commitment under the senior preferred stock purchase agreement to provide funding to us under certain circumstances if we have a net worth deficit. We are not aware of any plans of FHFA (1) to fundamentally change our business model, other than changes that might result from recommendations in the Treasury plan, if implemented, or (2) to reduce the aggregate amount available to or held by the company under our capital structure, which includes the senior preferred stock purchase agreement.

Senior Preferred Stock Purchase Agreement, Senior Preferred Stock and Warrant

Senior Preferred Stock Purchase Agreement

Under our senior preferred stock purchase agreement with Treasury, in September 2008 we issued Treasury one million shares of senior preferred stock and a warrant to purchase shares of our common stock. 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. The dividend and liquidation preference provisions of the senior preferred stock were also amended in December 2017 and in September 2019 pursuant to letter agreements between us, through FHFA in its capacity as conservator, and Treasury.

Senior Preferred Stock

The modifications and other specified provisions of the September 2019 letter agreement are described below.

- *Modification to Dividend Provisions—Increase in Applicable Capital Reserve Amount.* The terms of the senior preferred stock provide for dividends each quarter in the amount, if any, by which our net worth as of the end of the immediately preceding fiscal quarter exceeds the applicable capital reserve amount. The September 2019 letter agreement modified the dividend provisions of the senior preferred stock to increase the applicable capital reserve amount from $3 billion to $25 billion, effective for dividend periods beginning July 1, 2019. As a result of this change to the senior preferred stock dividend provisions, no dividends will be payable on the senior preferred stock for the first quarter of 2020, as our net worth of $14.6 billion as of December 31, 2019 is lower than the $25 billion capital reserve amount.
- *Modification to Liquidation Preference Provisions—Increase in Liquidation Preference.* The September 2019 letter agreement provides that, on September 30, 2019, and at the end of each fiscal quarter thereafter, the liquidation preference of the senior preferred stock will increase by an amount equal to the increase in our net worth, if any, during the immediately prior fiscal quarter, until such time as the liquidation preference has increased by $22 billion pursuant to this provision. As a result of this change to the senior preferred stock liquidation preference provisions, the aggregate liquidation preference of the senior preferred stock will increase from $131.2 billion as of December 31, 2019 to $135.4 billion as of March 31, 2020, due to the increase in our net worth during the fourth quarter of 2019.
- *Agreement to Amend Senior Preferred Stock Purchase Agreement to Enhance Taxpayer Protections.* The September 2019 letter agreement provides that we and Treasury agree to negotiate and execute an additional amendment to the senior preferred stock purchase agreement that further enhances taxpayer protections by adopting covenants broadly consistent with recommendations for administrative reform contained in the Treasury plan.

See "Note 11, Equity" for additional information about the senior preferred stock purchase agreement, including Treasury's funding commitment under the agreement.

Warrant

On September 7, 2008, we issued to Treasury a warrant to purchase, at a nominal price, shares of our common stock equal to 79.9% of the total common stock outstanding on a fully diluted basis on the date the warrant is exercised. The warrant may be exercised, in whole or in part, at any time on or before September 7, 2028. We recorded the warrant at fair value in our stockholders' equity as a component of additional paid-in-capital. The fair value of the warrant was calculated using the Black-Scholes Option Pricing Model. Since the warrant has an exercise price of $0.00001 per share, the model is insensitive to the risk-free rate and volatility assumptions used in the calculation and the share value of the warrant is equal to the price of the underlying common stock. We estimated that the fair value of the warrant at issuance was $3.5 billion based on the price of our common stock on September 8, 2008, which was after the dilutive effect of the warrant had been reflected in the market price. Subsequent changes in the fair value of the warrant are not recognized in our financial statements. If the warrant is exercised, the stated value of the common stock issued will be reclassified as "Common stock" in our consolidated balance sheets. Because the warrant's exercise price per share is considered non-substantive (compared to the market price of our

common stock), the warrant was determined to have characteristics of non-voting common stock, and thus is included in the computation of basic and diluted earnings (loss) per share. The weighted-average shares of common stock outstanding for 2019, 2018 and 2017 included shares of common stock that would be issuable upon full exercise of the warrant issued to Treasury.

Impact of U.S. Government Support

We continue to rely on support from Treasury to eliminate any net worth deficits we may experience in the future, which would otherwise trigger our being placed into receivership. Based on consideration of all the relevant conditions and events affecting our operations, including our reliance on the U.S. government, we continue to operate as a going concern and in accordance with FHFA's provision of authority.

In addition to MBS issuances, we fund our business through the issuance of short-term and long-term debt securities in the domestic and international capital markets. Accordingly, we are subject to “roll over,” or refinancing, risk on our outstanding debt. Our ability to issue long-term debt has been strong primarily due to actions taken by the federal government to support our business and our debt securities.

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 current level of access to debt funding. Changes or perceived changes in federal government support of our business without appropriate capitalization of the company could materially and adversely affect our liquidity, financial condition and results of operations. Changes or perceived changes in our status as a government-sponsored enterprise could also materially and adversely affect our liquidity, financial condition and results of operations. In addition, due to our reliance on the U.S. government's support, our access to debt funding or the cost of debt funding also could be materially adversely affected by a change or perceived change in the creditworthiness of the U.S government. A downgrade in our credit ratings could reduce demand for our debt securities and increase our borrowing costs. Future changes or disruptions in the financial markets could significantly impact the amount, mix and cost of funds we obtain, which also could increase our liquidity and “roll over” risk and have a material adverse impact on our liquidity, financial condition and results of operations.

Related Parties

Because Treasury holds a warrant to purchase shares of Fannie Mae common stock equal to 79.9% of the total number of shares of Fannie Mae common stock, we and Treasury are deemed related parties. As of December 31, 2019, Treasury held an investment in our senior preferred stock with an aggregate liquidation preference of $131.2 billion. See “Senior Preferred Stock Purchase Agreement, Senior Preferred Stock and Warrant” above for additional information on transactions under this agreement.

FHFA's control of both Fannie Mae and Freddie Mac has caused Fannie Mae, FHFA and Freddie Mac to be deemed related parties. Additionally, Fannie Mae and Freddie Mac jointly own Common Securitization Solutions, LLC (“CSS”), a limited liability company created to operate a common securitization platform; as such, CSS is deemed a related party. As a part of our joint ownership, Fannie Mae, Freddie Mac and CSS are parties to a limited liability company agreement that sets forth the overall framework for the joint venture, including Fannie Mae's and Freddie Mac's rights and responsibilities as members of CSS. Fannie Mae, Freddie Mac and CSS are also parties to a customer services agreement that sets forth the terms under which CSS provides mortgage securitization services to us and Freddie Mac, including the operation of the common securitization platform as well as an administrative services agreement. CSS operates as a separate company from us and Freddie Mac, with all funding and limited administrative support services and other resources provided to it by us and Freddie Mac through our capital contributions.

In the ordinary course of business, Fannie Mae may purchase and sell securities issued by Treasury and Freddie Mac. These transactions occur on the same terms as those prevailing at the time for comparable transactions with unrelated parties. With our implementation of the Single Security Initiative in June 2019, some of the structured securities we issue are backed in whole or in part by Freddie Mac securities. Additionally, we make regular income tax payments to and receive tax refunds from the Internal Revenue Service (“IRS”), a bureau of Treasury.

Transactions with Treasury

Our administrative expenses were reduced by $20 million, $24 million and $40 million for the years ended December 31, 2019, 2018 and 2017, respectively, due to reimbursements from Treasury and Freddie Mac for expenses incurred as program administrator for Treasury's Home Affordable Modification Program (“HAMP”) and other initiatives under Treasury's Making Home Affordable Program.

In December 2011, Congress enacted the Temporary Payroll Cut Continuation Act of 2011 (“TCCA”) which, among other provisions, required that we increase our single-family guaranty fees by at least 10 basis points and remit this increase to Treasury. Effective April 1, 2012, we increased the guaranty fee on all single-family residential mortgages delivered to us by 10 basis points. 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. The resulting fee

revenue and expense are recorded in “Mortgage loans interest income” and “TCCA fees,” respectively, in our consolidated statements of operations and comprehensive income. We recognized $2.4 billion, $2.3 billion and $2.1 billion in TCCA fees during the years ended December 31, 2019, 2018 and 2017, respectively, of which $626 million and $586 million had not been remitted as of December 31, 2019 and 2018, respectively.

The GSE Act requires us to set aside certain funding obligations, a portion of which is attributable to Treasury’s Capital Magnet Fund. In December 2014, FHFA directed us to set aside amounts for these contributions during 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 allocation or transfer would cause such a draw. These funding obligations, recognized in “Other expenses, net” in our consolidated statements of operations and comprehensive income, were measured as the product of 4.2 basis points and the unpaid principal balance of our total new business purchases for the respective period, with 35% of this amount payable to Treasury’s Capital Magnet Fund. We recognized $98 million, $75 million and $84 million in “Other expenses, net” in connection with Treasury’s Capital Magnet Fund for the years ended December 31, 2019, 2018 and 2017, respectively. We paid $75 million and $84 million to Treasury’s Capital Magnet Fund in 2019 and 2018, respectively. In 2020, we expect to pay $98 million to Treasury’s Capital Magnet Fund based on our new business purchases in 2019.

On September 27, 2019, we, through FHFA acting on our behalf in its capacity as our conservator, and Treasury entered into a letter agreement modifying the dividend and liquidation preference provisions of the senior preferred stock held by Treasury. These modifications and other specified provisions of the letter agreement are described under “Senior Preferred Stock Purchase Agreement, Senior Preferred Stock and Warrant” above.

Transactions with FHFA

The GSE Act authorizes FHFA to establish an annual assessment for regulated entities, including Fannie Mae, which is payable on a semi-annual basis (April and October), for FHFA’s costs and expenses, as well as to maintain FHFA’s working capital. We recognized FHFA assessment fees, which are recorded in “Administrative expenses” in our consolidated statements of operations and comprehensive income, of $121 million, $110 million and $112 million for the years ended December 31, 2019, 2018 and 2017, respectively.

Transactions with CSS and Freddie Mac

We contributed capital to CSS, the company we jointly own with Freddie Mac, of $105 million, $135 million and $102 million for the years ended December 31, 2019, 2018 and 2017, respectively.

In the second quarter of 2019, Fannie Mae, Freddie Mac and CSS entered into an amendment to the customer services agreement that sets forth the terms under which CSS provides mortgage securitization services to us and Freddie Mac. In June 2019, we entered into an indemnification agreement with Freddie Mac relating to the commingled structured securities that we and Freddie Mac issue. Under the indemnification agreement, Fannie Mae and Freddie Mac each have agreed to indemnify the other party for losses caused by: its failure to meet its payment or other specified obligations under the trust agreements pursuant to which the underlying resecuritized securities were issued; its failure to meet its obligations under the customer services agreement; its violations of laws; or with respect to material misstatements or omissions in offering documents, ongoing disclosures and related materials relating to the underlying resecuritized securities.

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). To conform to our current period presentation, we have reclassified certain amounts reported in our prior periods’ consolidated financial statements.

Use of Estimates

Preparing consolidated financial statements in accordance with GAAP requires management to make estimates and assumptions that affect our reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities as of the dates of our consolidated financial statements, as well as our reported amounts of revenues and expenses during the reporting periods. Management has made significant estimates in a variety of areas including, but not limited to, our allowance for loan losses. Actual results could be different from these estimates.

Principles of Consolidation

Our consolidated financial statements include our accounts as well as the accounts of the other entities in which we have a controlling financial interest. All intercompany balances and transactions have been eliminated. The typical condition for a controlling financial interest is ownership of a majority of the voting interests of an entity. A controlling financial interest may also exist in an entity such as a variable interest entity (“VIE”) through arrangements that do not involve voting interests.

VIE Assessment

We have interests in various entities that are considered VIEs. A VIE is an entity (1) that has total equity at risk that is not sufficient to finance its activities without additional subordinated financial support from other entities, (2) where the group of

equity holders does not have the power to direct the activities of the entity that most significantly impact the entity's economic performance, or the obligation to absorb the entity's expected losses or the right to receive the entity's expected residual returns, or both, or (3) where the voting rights of some investors are not proportional to their obligations to absorb the expected losses of the entity, their rights to receive the expected residual returns of the entity, or both, and substantially all of the entity's activities either involve or are conducted on behalf of an investor that has disproportionately few voting rights.

We determine if an entity is a VIE by performing a qualitative analysis, which requires certain subjective decisions including, but not limited to, the design of the entity, the variability that the entity was designed to create and pass along to its interest holders, the rights of the parties and the purpose of the arrangement.

The primary types of VIE entities with which we are involved are securitization trusts guaranteed by us via lender swap and portfolio securitization transactions, special-purpose vehicles ("SPVs") associated with certain credit risk transfer programs, limited partnership investments in low-income housing tax credit ("LIHTC") and other housing partnerships, as well as mortgage and asset-backed trusts that were not created by us. For more information on the primary types of VIE entities with which we are involved, see "Note 2, Consolidations and Transfers of Financial Assets."

Primary Beneficiary Determination

If an entity is a VIE, we consider whether our variable interest in that entity causes us to be the primary beneficiary. We are deemed to be the primary beneficiary of a VIE when we have both (1) the power to direct the activities of the VIE that most significantly impact the entity's economic performance, and (2) exposure to benefits and/or losses that could potentially be significant to the entity. The primary beneficiary of the VIE is required to consolidate and account for the assets, liabilities, and noncontrolling interests of the VIE in its consolidated financial statements. The assessment of which party has the power to direct the activities of the VIE may require significant management judgment when (1) more than one party has power or (2) more than one party is involved in the design of the VIE but no party has the power to direct the ongoing activities that could be significant.

We continually assess whether we are the primary beneficiary of the VIEs with which we are involved and therefore may consolidate or deconsolidate a VIE through the duration of our involvement. Examples of certain events that may change whether or not we consolidate the VIE include a change in the design of the entity or a change in our ownership in the entity.

Measurement of Consolidated Assets and Liabilities

When we are the transferor of assets into a VIE that we consolidate at the time of the transfer, we continue to recognize the assets and liabilities of the VIE at the amounts that they would have been recognized if we had not transferred them, and no gain or loss is recognized. For all other VIEs that we consolidate (that is, those for which we are not the transferor), we recognize the assets and liabilities of the VIE in our consolidated financial statements at fair value, and we recognize a gain or loss for the difference between (1) the fair value of the consideration paid, fair value of noncontrolling interests and the reported amount of any previously held interests, and (2) the net amount of the fair value of the assets and liabilities recognized upon consolidation. However, for the securitization trusts established under our lender swap program, no gain or loss is recognized if the trust is consolidated at formation as there is no difference in the respective fair value of (1) and (2) above. We record gains or losses that are associated with the consolidation of VIEs as a component of "Investment gains, net" in our consolidated statements of operations and comprehensive income.

If we cease to be deemed the primary beneficiary of a VIE, we deconsolidate the VIE. We use fair value to measure the initial cost basis for any retained interests that are recorded upon the deconsolidation of a VIE. Any difference between the fair value and the previous carrying amount of our investment in the VIE is recorded in "Investment gains, net" in our consolidated statements of operations and comprehensive income.

Purchase/Sale of Fannie Mae Securities

We actively purchase and may subsequently sell guaranteed MBS that have been issued through lender swap and portfolio securitization transactions. The accounting for the purchase and sale of our guaranteed MBS issued by the trusts differs based on the characteristics of the securitization trusts and whether the trusts are consolidated.

Single Security Initiative and Uniform Mortgage-Backed Securities ("UMBS")

The Single Security Initiative was a joint initiative among Fannie Mae, Freddie Mac, and our jointly owned limited liability company, Common Securitization Solutions, LLC, under the direction of FHFA, to develop a single common mortgage-backed security issued by both Fannie Mae and Freddie Mac to finance fixed-rate mortgage loans backed by one- to four-unit single-family properties. We and Freddie Mac began issuing UMBS pursuant to the Single Security Initiative in June 2019. We and Freddie Mac also began resecuritizing UMBS certificates into structured securities in June 2019. The structured securities backed by UMBS that we may issue include Supers, which are single-class resecuritization transactions, and Real Estate Mortgage Investment Conduit securities ("REMICs") and interest-only and principal-only strip securities ("SMBS"), which are multi-class resecuritization transactions.

Since the implementation of the Single Security Initiative in June 2019, we have resecuritized UMBS, Supers and other structured securities issued by Freddie Mac. The mortgage loans that serve as collateral for Freddie Mac-issued UMBS are not held in trusts that are consolidated by Fannie Mae. When we include Freddie Mac securities in our structured securities, we are subject to additional credit risk because we guarantee securities that were not previously guaranteed by Fannie Mae. However, Freddie Mac continues to guarantee the payment of principal and interest on the underlying Freddie Mac securities that we have resecuritized. We have concluded that this additional credit risk is negligible because of the funding commitment available to Freddie Mac through its senior preferred stock purchase agreement with Treasury. Prior to the implementation of the Single Security Initiative, the vast majority of underlying assets of our resecuritization trusts were limited to Fannie Mae securities that were collateralized by mortgage loans held in consolidated trusts.

Single-Class Securitization Trusts

We create single-class securitization trusts to issue single-class Fannie Mae MBS (including UMBS) that evidence an undivided interest in the mortgage loans held in the trust. Investors in single-class Fannie Mae MBS receive principal and interest payments in proportion to their percentage ownership of the MBS issuance. We guarantee to each single-class securitization trust that we will supplement amounts received by the securitization trust as required to permit timely payments of principal and interest on the related Fannie Mae MBS. This guaranty exposes us to credit losses on the loans underlying Fannie Mae MBS.

Single-class securitization trusts are used for lender swap and portfolio securitization transactions. A lender swap transaction occurs when a mortgage lender delivers a pool of single-family mortgage loans to us, which we immediately deposit into an MBS trust. The MBS are then issued to the lender in exchange for the mortgage loans. A portfolio securitization transaction occurs when we purchase mortgage loans from third-party sellers for cash and later deposit these loans into an MBS trust. The securities issued through a portfolio securitization are then sold to investors for cash. We consolidate single-class securitization trusts that are issued under these programs when our role as guarantor and master servicer provides us with the power to direct matters, such as the servicing of the mortgage loans, that impact the credit risk to which we are exposed. In contrast, we do not consolidate single-class securitization trusts when other organizations have the power to direct these activities (for example, when the loan collateral is subject to a Federal Housing Administration guaranty and related Servicing Guide).

When we purchase single-class Fannie Mae MBS issued from a consolidated trust, we account for the transaction as an extinguishment of the related debt in our consolidated financial statements. We record a gain or loss on the extinguishment of such debt to the extent that the purchase price of the MBS does not equal the carrying value of the related consolidated debt reported in our consolidated balance sheets (including unamortized premiums, discounts or other cost basis adjustments) at the time of purchase. When we sell single-class Fannie Mae MBS that were issued from a consolidated trust, we account for the transaction as the issuance of debt in our consolidated financial statements. We amortize the related premiums, discounts and other cost basis adjustments into income over the contractual life of the MBS.

If a single-class securitization trust is not consolidated, we account for the purchase and subsequent sale of such securities as the transfer of an investment security in accordance with the accounting guidance for transfers of financial assets.

Single-Class Resecuritization Trusts

Fannie Mae single-class resecuritization trusts are created by depositing MBS into a new securitization trust for the purpose of aggregating multiple mortgage-related securities into one combined security. Single-class resecuritization securities pass through directly to the holders of the securities all of the cash flows of the underlying MBS held in the trust. With the implementation of the Single Security Initiative, these securities can now be collateralized directly or indirectly by cash flows from underlying securities issued by Fannie Mae, Freddie Mac, or a combination of both. Resecuritization trusts backed directly or indirectly only by Fannie Mae MBS are non-commingled resecuritization trusts. Resecuritization trusts collateralized directly or indirectly by cash flows either in part or in whole from Freddie Mac MBS are commingled resecuritization trusts.

Securities issued by our non-commingled single-class resecuritization trusts are backed solely by Fannie Mae MBS, and the guaranty we provide on the trust does not subject us to additional credit risk because we have already provided a guarantee on the underlying securities. Further, the securities issued by our non-commingled single-class resecuritization trusts pass through all of the cash flows of the underlying Fannie Mae MBS directly to the holders of the securities. Accordingly, these securities are deemed to be substantially the same as the underlying Fannie Mae MBS collateral. Additionally, our involvement with these trusts does not provide us with any incremental rights or powers that would enable us to direct any activities of the trusts. We have concluded that we are not the primary beneficiary of and, as a result, we do not consolidate our non-commingled single-class resecuritization trusts. Therefore, we account for purchases and sales of securities issued by non-commingled single-class resecuritization trusts as extinguishments and issuances of the underlying MBS debt, respectively.

Securities issued by our commingled single-class resecuritization trusts are backed in whole or in part by Freddie Mac securities. As discussed in “Note 6, Financial Guarantees,” the guaranty we provide to the commingled single-class resecuritization trust subjects us to additional credit risk to the extent that we are providing a guaranty for the timely payment of principal and interest on the underlying Freddie Mac securities that we have not previously guaranteed. Accordingly, securities issued by our commingled resecuritization trusts are not deemed to be substantially the same as the underlying

collateral. We do not have any incremental rights or powers related to commingled single-class resecuritization trusts that would enable us to direct any activities of the underlying trust. As a result, we have concluded that we are not the primary beneficiary of, and therefore do not consolidate, our commingled single-class resecuritization trusts unless we have the unilateral right to dissolve the trust. We have this right when we hold 100% of the beneficial interests issued by the resecuritization trust. Therefore, we account for purchases and sales of these securities as the transfer of an investment security .

Multi-Class Resecuritization Trusts

Multi-class resecuritization trusts are trusts we create to issue multi-class Fannie Mae structured securities, including REMICs and SMBS, in which the cash flows of the underlying mortgage assets are divided, creating several classes of securities, each of which represents a beneficial ownership interest in a separate portion of cash flows. We guarantee to each multi-class resecuritization trust that we will supplement amounts received by the trusts as required to permit timely guaranty payments on the related Fannie Mae structured securities. With the implementation of the Single Security Initiative, these multi-class structured securities can now be collateralized, directly or indirectly, by securities issued by Fannie Mae, Freddie Mac or a combination of both.

The guaranty we provide to our non-commingled multi-class resecuritization trusts does not subject us to additional credit risk, because the underlying assets are Fannie Mae-issued securities for which we have already provided a guaranty. However, for commingled multi-class structured securities, we are subject to additional credit risk to the extent we are providing a guaranty for the timely payment of principal and interest on the underlying Freddie Mac securities that we have not previously guaranteed. For both commingled and non-commingled multi-class resecuritization trusts, we may also be exposed to prepayment risk via our ownership of securities issued by these trusts. We do not have the ability via our involvement with a multi-class resecuritization trust to impact either the credit risk or prepayment risk to which we are exposed. Therefore, we have concluded that we do not have the characteristics of a controlling financial interest and do not consolidate multi-class resecuritization trusts unless we have the unilateral right to dissolve the trust as noted below.

Securities issued by multi-class resecuritization trusts do not directly pass through all of the cash flows of the underlying securities, and therefore the issued and underlying securities are not considered substantially the same. Accordingly, we account for purchases and sales of securities issued by the multi-class resecuritization trusts as purchases and sales of investment securities.

Since the implementation of the Single Security Initiative in June 2019, we may now include UMBS, Supers and other structured securities that are either issued or backed by securities issued by Freddie Mac in our resecuritization trusts. As a result, we adopted a consolidation threshold for multi-class resecuritization trusts that is based on our ability to unilaterally dissolve the resecuritization trust. This ability exists only when we hold 100% of the outstanding beneficial interests issued by the resecuritization trust. This new consolidation threshold was applied prospectively upon implementation of the Single Security Initiative in the second quarter of 2019 and prior period amounts were not recast. Prior to the implementation of the Single Security Initiative, we consolidated multi-class resecuritization trusts when we held a substantial portion of the outstanding beneficial interests issued by the trust. Our adoption of the new consolidation threshold did not have a material impact on our consolidated financial statements.

Transfers of Financial Assets

We evaluate each transfer of financial assets to determine whether the transfer qualifies as a sale. If a transfer does not meet the criteria for sale treatment, the transferred assets remain in our consolidated balance sheets and we record a liability to the extent of any proceeds received in connection with the transfer. We record transfers of financial assets in which we surrender control of the transferred assets as sales.

When a transfer that qualifies as a sale is completed, we derecognize all assets transferred and recognize all assets obtained and liabilities incurred at fair value. The difference between the carrying basis of the assets transferred and the fair value of the net proceeds from the sale is recorded as a component of "Investment gains, net" in our consolidated statements of operations and comprehensive income. Retained interests are primarily derived from transfers associated with our portfolio securitizations in the form of Fannie Mae securities. We separately describe the subsequent accounting, as well as how we determine fair value, for our retained interests in the "Investments in Securities" section of this note.

We enter into repurchase agreements that involve contemporaneous trades to purchase and sell securities. These transactions are accounted for as secured financings since the transferor has not relinquished control over the transferred assets. These transactions are reported as securities purchased under agreements to resell and securities sold under agreements to repurchase in our consolidated balance sheets except for securities purchased under agreements to resell on an overnight basis, which are included in cash and cash equivalents in our consolidated balance sheets.

Cash and Cash Equivalents, Restricted Cash and Statements of Cash Flows

Short-term investments that have a maturity at the date of acquisition of three months or less and are readily convertible to known amounts of cash are generally considered cash equivalents. We also include securities purchased under agreements to resell on an overnight basis in “cash and cash equivalents” in our consolidated balance sheets. We may pledge as collateral certain short-term investments classified as cash equivalents.

“Restricted cash” in our consolidated balance sheets represents cash advanced to the extent such amounts are due to, but have not yet been remitted to, MBS certificateholders. Similarly, when we or our servicers collect and hold cash that is due to certain Fannie Mae MBS trusts in advance of our requirement to remit these amounts to the trusts, we recognize the collected cash amounts as restricted cash. In addition, we recognize restricted cash when we and our servicers advance payments on delinquent loans to consolidated Fannie Mae MBS trusts. Cash may also be recognized as restricted cash as a result of restrictions related to certain consolidated partnership funds as well as for certain collateral arrangements for which we do not have the right to use the cash.

In the presentation of our consolidated statements of cash flows, we present cash flows from derivatives that do not contain financing elements and mortgage loans held for sale at acquisition as operating activities. We present cash flows from federal funds sold and securities purchased under agreements to resell or similar arrangements as investing activities and cash flows from federal funds purchased and securities sold under agreements to repurchase as financing activities in “Other, net.” We classify cash flows from trading securities based on their nature and purpose.

We classify cash flows related to mortgage loans acquired as held-for-investment, including loans of Fannie Mae and loans of consolidated trusts, as either investing activities (for principal repayments or sales proceeds) or operating activities (for interest received from borrowers included as a component of our net income). Cash flows related to debt securities issued by consolidated trusts are classified as either financing activities (for repayments of principal to certificateholders) or operating activities (for interest payments to certificateholders included as a component of our net income). We distinguish between the payments and proceeds related to the debt of Fannie Mae and the debt of consolidated trusts, as applicable. We present our non-cash activities in the consolidated statements of cash flows at the associated unpaid principal balance.

Investments in Securities

Securities Classified as Trading or Available-for-Sale

We classify and account for our securities as either trading or available-for-sale (“AFS”). We measure trading securities at fair value in our consolidated balance sheets with unrealized and realized gains and losses included as a component of “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income. We include interest and dividends on securities in our consolidated statements of operations and comprehensive income. Interest income includes the amortization of cost basis adjustments, including premiums and discounts, recognized as a yield adjustment using the interest method over the contractual term of the security. We measure AFS securities at fair value in our consolidated balance sheets, with unrealized gains and losses included in accumulated other comprehensive income, net of income taxes. We recognize realized gains and losses on AFS securities when securities are sold. We calculate the gains and losses using the specific identification method and record them in “Investment gains, net” in our consolidated statements of operations and comprehensive income. As of December 31, 2019, we did not have any securities classified as held-to-maturity.

Fannie Mae MBS included in “Investments in securities”

When we own Fannie Mae MBS issued by unconsolidated trusts, we do not derecognize any components of the guaranty assets, guaranty obligations, or any other outstanding recorded amounts associated with the guaranty transaction because our contractual obligation to the MBS trust remains in force until the trust is liquidated. We determine the fair value of Fannie Mae MBS based on observable market prices because most Fannie Mae MBS are actively traded. For any subsequent purchase or sale, we continue to account for any outstanding recorded amounts associated with the guaranty transaction on the same basis of accounting.

Other-Than-Temporary Impairment of Debt Securities

We evaluate AFS securities for other-than-temporary impairment (“OTTI”) on a quarterly basis. OTTI is considered to have occurred when the fair value of a debt security is below its amortized cost basis and we intend to sell the security or it is more likely than not that we will be required to sell the security before recovery. In such cases, we recognize in “Investment gains, net” in our consolidated statements of operations and comprehensive income the entire difference between the amortized cost basis of a security and its fair value. OTTI is also considered to have occurred if we do not expect to recover the entire amortized cost basis of a debt security even if we do not intend to sell the security or it is not more likely than not that we will be required to sell the security before recovery. In these circumstances, we separate the difference between the amortized cost basis of the security and its fair value into the amount representing the credit loss, which we recognize in “Investment gains, net” in our consolidated statements of operations and comprehensive income, and the amount related to all other factors, which we recognize in “Total other comprehensive loss,” net of taxes, in our consolidated statements of operations and

comprehensive income. In periods after we recognize OTTI of debt securities, we use the prospective interest method to recognize interest income.

Mortgage Loans

Loans Held for Sale

When we acquire mortgage loans that we intend to sell or securitize via trusts that will not be consolidated, we classify the loans as held for sale ("HFS"). We report the carrying value of HFS loans at the lower of cost or fair value. Any excess of an HFS loan's cost over its fair value is recognized as a valuation allowance, with changes in the valuation allowance recognized as "Investment gains, net" in our consolidated statements of operations and comprehensive income. We recognize interest income on HFS loans on an accrual basis, unless we determine that the ultimate collection of contractual principal or interest payments in full is not reasonably assured. Purchase premiums, discounts and other cost basis adjustments on HFS loans are deferred upon loan acquisition, included in the cost basis of the loan, and not amortized. We determine any lower of cost or fair value adjustment on HFS loans at an individual loan level.

In the event that we reclassify held for investment ("HFI") loans to HFS loans, based upon a change in our intent, we record the loans at lower of cost or fair value on the date of redesignation. If the amounts charged off upon redesignation exceed the allowance related to the loans, we record a provision for credit losses. If the amounts charged off are less than the allowance related to the loans, we recognize a benefit for credit losses.

Loans Held for Investment

When we acquire mortgage loans that we have the ability and the intent to hold for the foreseeable future or until maturity, we classify the loans as HFI. When we consolidate a securitization trust, we recognize the loans underlying the trust in our consolidated balance sheets. The trusts do not have the ability to sell mortgage loans and the use of such loans is limited exclusively to the settlement of obligations of the trusts. Therefore, mortgage loans acquired with the intent to securitize via consolidated trusts will be classified as HFI in our consolidated balance sheets both prior to and subsequent to their securitization.

We report the carrying value of HFI loans at the unpaid principal balance, net of unamortized premiums and discounts, other cost basis adjustments, and allowance for loan losses. We recognize interest income on HFI loans on an accrual basis using the interest method over the contractual life of the loan, including the amortization of any deferred cost basis adjustments, such as the premium or discount at acquisition, unless we determine that the ultimate collection of contractual principal or interest payments in full is not reasonably assured.

Nonaccrual Loans

We discontinue accruing interest on loans when we believe collectability of principal or interest is not reasonably assured, which for a single-family loan we have determined, based on our historical experience, to be when the loan becomes two months or more past due according to its contractual terms. Interest previously accrued but not collected is reversed through interest income at the date a loan is placed on nonaccrual status. For loans on nonaccrual status, we recognize income when cash payments are received. We return a non-modified single-family loan to accrual status at the point that the borrower brings the loan current. We return a modified single-family loan to accrual status at the point that the borrower successfully makes all required payments during the trial period (generally three to four months) and the modification is made permanent. We place a multifamily loan on nonaccrual status when the loan becomes three months or more past due according to its contractual terms or is deemed to be individually impaired, unless the loan is well secured such that collectability of principal and accrued interest is reasonably assured. We return a multifamily loan to accrual status when the borrower cures the delinquency of the loan or we otherwise determine that the loan is well secured such that collectability is reasonably assured.

Restructured Loans

A modification to the contractual terms of a loan that results in granting a concession to a borrower experiencing financial difficulty is considered a troubled debt restructuring ("TDR"). Our loss mitigation programs primarily include modifications that result in the capitalization of past due amounts in combination with interest rate reductions and/or the extension of the loan's maturity date. Such restructurings are granted to borrowers in financial difficulty on either a permanent or contingent basis, as in the case of modifications with a trial period. We consider these types of loan restructurings to be TDRs.

We generally do not include principal or past due interest forgiveness as part of our loss mitigation programs, and, as a result, we generally do not charge off any outstanding principal or accrued interest amounts at the time of loan modification. We believe that the loan underwriting activities we perform as a part of our loan modification process coupled with the borrower's successful performance during any required trial period provides us reasonable assurance regarding the collectability of the principal and interest due in accordance with the loan's modified terms, which include any past due interest amounts that are capitalized as principal at the time of modification. As such, the loan is returned to accrual status when the loan modification is completed (*i.e.*, at the end of the trial period), and we accrue interest thereafter in accordance with our interest accrual policy. If the loan was on nonaccrual status prior to entering the trial period, it remains on nonaccrual status until the borrower demonstrates performance via the trial period and the modification is finalized.

We also engage in other loss mitigation activities with troubled borrowers, which include repayment plans, forbearance arrangements, and modifications that are limited to the capitalization only of past due amounts. For all of these activities, we consider the deferral or capitalization of three or fewer missed payments to represent only an insignificant delay, and thus not a TDR. If we defer or capitalize more than three missed payments either through a legal or informal modification, the delay is no longer considered insignificant, and the restructuring is accounted for as a TDR.

We measure impairment of a loan restructured in a TDR individually based on the excess of the recorded investment in the loan over the present value of the expected future cash inflows discounted at the loan's original effective interest rate. Costs incurred to complete a TDR are expensed as incurred. 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 costs to sell the property and estimated insurance or other proceeds we expect to receive.

Allowance for Loan Losses

Our allowance for loan losses is a valuation allowance that reflects an estimate of incurred credit losses related to our recorded investment in both single-family and multifamily HFI loans. This population includes both HFI loans held by Fannie Mae and by consolidated Fannie Mae MBS trusts. When calculating our allowance for loan losses, we consider only our net recorded investment in the loan at the balance sheet date, which includes the loan's unpaid principal balance and any applicable cost basis adjustments. When losses on a loan are confirmed, typically through our receipt of property upon foreclosure of the loan or of cash proceeds upon completion of a short sale, we reduce our allowance for loan losses by recording a charge-off. Additionally, we record charge-offs as a reduction to our allowance for loan losses when a loan is determined to be uncollectible, upon the redesignation of loans from HFI to HFS and pursuant to the charge-off provisions 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 excess of a loan's unpaid principal balance, accrued interest, and any applicable cost basis adjustments ("our total exposure") over the fair value of the assets is treated as a charge-off loss that is deducted from the allowance for loan losses. The amount charged off also considers estimated proceeds from primary mortgage insurance or other credit enhancements that are either contractually attached to a loan or that were entered into contemporaneously with and in contemplation of a guaranty or loan purchase transaction as a recovery of our total exposure, up to the amount of loss recognized as a charge-off. We record additional proceeds from primary mortgage insurance and credit enhancements in excess of our total exposure as a recovery of any forgone contractually past due interest, and then as an offset to the expenses recorded in "Foreclosed property expense" in our consolidated statements of operations and comprehensive income when received.

Single-Family Loans

We recognize credit losses related to groups of similar single-family HFI loans that are not individually impaired when (1) available information as of each balance sheet date indicates that it is probable a loss has occurred and (2) the amount of the loss can be reasonably estimated. We aggregate such loans, based on similar risk characteristics, for purposes of estimating incurred credit losses and establish a collective single-family loss reserve using an econometric model that derives an overall loss reserve estimate. The estimate takes into account multiple factors which include but are not limited to origination year, loan product type, mark-to-market loan-to-value ("LTV") ratio, and delinquency status. Once loans are aggregated, there typically is not a single, distinct event that would result in an individual loan or pool of loans being impaired. In determining our collective reserve, we base our allowance methodology on historical events and trends, such as loss severity (in event of default), default rates, and recoveries from mortgage insurance contracts and other credit enhancements that provide loan-level loss coverage and are either contractually attached to a loan or that were entered into contemporaneously with and in contemplation of a guaranty or loan purchase transaction. We 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. Our allowance calculation also incorporates a loss confirmation period (the anticipated time lag between a credit loss event and the confirmation of the credit loss resulting from that event) to ensure our allowance estimate captures credit losses that have been incurred as of the balance sheet date but have not been confirmed. In addition, management performs a review of the observable data used in its estimate to ensure it is representative of prevailing economic conditions and other events existing as of the balance sheet date.

Individually Impaired Single-Family Loans

Individually impaired single-family loans currently consist of those we restructure in a TDR. We consider a loan to be impaired when, based on current information, it is probable that we will not receive all amounts due, including interest, in accordance with the contractual terms of the loan agreement. When making our assessment as to whether a loan is impaired, we also take into account more than insignificant delays in payment and shortfalls in amounts received. Determination of whether a delay in payment or shortfall in amount is more than insignificant requires management's judgment as to the facts and circumstances surrounding the loan.

Our measurement of impairment on an individually impaired loan follows the method that is most consistent with our expectations of recovery of our recorded investment in the loan. When a loan has been restructured, we measure impairment

using a cash flow analysis discounted at the loan's original effective interest rate. If we expect to recover some or all of our recorded investment in an individually impaired loan through probable foreclosure of the underlying collateral, 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 costs to sell the property and estimated insurance or other proceeds we expect to receive. For individually impaired loans that we believe are probable of foreclosure, we take into consideration the sales prices of foreclosed properties in determining the value of the underlying real estate collateral.

We use internal models to project cash flows used to assess impairment of individually impaired loans, and generally update the market and loan characteristic inputs we use in these models monthly, using month-end data. Market inputs include information such as interest rates, volatility and spreads, while loan characteristic inputs include information such as mark-to-market LTV ratios and delinquency status. The loan characteristic inputs are key factors that affect the predicted rate of default for loans evaluated for impairment through our internal cash flow models. For example, loans with an unsuccessful trial modification, which are often accompanied by high delinquency rates, have much higher predicted default rates compared to performing loans with completed modifications, particularly those with a significant payment reduction in the borrower's required monthly payment. We evaluate the reasonableness of our models by comparing the results with actual performance and our assessment of current market conditions. In addition, we review our models at least annually for reasonableness and predictive ability in accordance with our corporate model review policy. Accordingly, we believe the projected cash flows generated by our models that we use to assess impairment appropriately reflect the expected future performance of the loans.

Multifamily Loans

We identify multifamily loans for evaluation for impairment through a credit risk assessment process. If we determine that a multifamily loan is individually impaired, we generally measure impairment on that loan based on the fair value of the underlying collateral less estimated costs to sell the property. For groups of smaller-balance homogeneous multifamily loans, we evaluate collectively for impairment. 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.

We categorize loan credit risk based on relevant observable data about a borrower's ability to pay, including multifamily market fundamentals such as vacancy rates and rents, review of available current borrower financial information, operating statements on the underlying collateral, current debt service coverage ratios ("DSCRs"), historical payment experience, estimates of the current collateral values and other related credit documentation. For each risk category, certain observed default probability and loss severity (in event of default) factors, based on historical performance of loans in the same risk category, are applied against our recorded investment in the loans to determine an appropriate allowance. Such performance data reflect historical delinquencies and charge-offs, as well as loan size. In addition, we consider any credit enhancements such as letters of credit or loss sharing arrangements with our lenders.

Advances to Lenders

Advances to lenders represent our payments of cash in exchange for the receipt of mortgage loans from lenders in a transfer that is accounted for as a secured lending arrangement. These transfers primarily occur when we provide early funding to lenders for loans that they will subsequently either sell to us or securitize into a Fannie Mae MBS that they will deliver to us. We individually negotiate early lender funding advances with our lender customers. Early lender funding advances have terms up to 60 days and earn a short-term market rate of interest.

We report cash outflows from advances to lenders as an investing activity in our consolidated statements of cash flows. Settlements of the advances to lenders, other than through lender repurchases of loans, are not collected in cash, but rather in the receipt of either loans or Fannie Mae MBS. Accordingly, this activity is reflected as a non-cash transfer in our consolidated statements of cash flows in the line item entitled "Transfers from advances to lenders to loans held for investment of consolidated trusts."

Acquired Property, Net

We recognize foreclosed property (*i.e.*, "Acquired property, net") upon the earlier of the loan foreclosure event or when we take physical possession of the property (*i.e.*, through a deed-in-lieu of foreclosure transaction). We initially measure foreclosed property at its fair value less its estimated costs to sell. We treat any excess of our recorded investment in the loan over the fair value less estimated costs to sell the property as a charge-off to the "Allowance for loan losses" in our consolidated balance sheets. Any excess of the fair value less estimated costs to sell the property over our recorded investment in the loan is recognized first to recover any previously charged-off amounts, then to recover any forgone, contractually due interest, and lastly to "Foreclosed property expense" in our consolidated statements of operations and comprehensive income.

We classify foreclosed properties as HFS when we intend to sell the property and the following conditions are met at either acquisition or within a relatively short period thereafter: we are actively marketing the property and it is available for immediate sale in its current condition such that the sale is reasonably expected to take place within one year. We report these properties at the lower of their carrying amount or fair value less estimated selling costs. We do not depreciate these properties.

We recognize a loss for any subsequent write-down of the property to its fair value less its estimated costs to sell through a valuation allowance with an offsetting charge to “Foreclosed property expense” in our consolidated statements of operations and comprehensive income. We recognize a recovery for any subsequent increase in fair value less estimated costs to sell up to the cumulative loss previously recognized through the valuation allowance. We recognize gains or losses on sales of foreclosed property through “Foreclosed property expense” in our consolidated statements of operations and comprehensive income.

Properties that do not meet the criteria to be classified as HFS are classified as held for use and are recorded in “Other assets” in our consolidated balance sheets. These properties are depreciated and are evaluated for impairment when circumstances indicate that the carrying amount of the property is no longer recoverable.

Commitments to Purchase and Sell Mortgage Loans and Securities

We enter into commitments to purchase and sell mortgage-backed securities and to purchase single-family and multifamily mortgage loans. Certain commitments to purchase or sell mortgage-backed securities and to purchase single-family mortgage loans are generally accounted for as derivatives. Our commitments to purchase multifamily loans are not accounted for as derivatives because they do not meet the criteria for net settlement.

When derivative purchase commitments settle, we include the fair value on the settlement date in the cost basis of the loan or unconsolidated 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 and sales of securities issued by our consolidated MBS trusts are treated as extinguishments or issuances of debt, respectively. For commitments to purchase and sell securities issued by our consolidated MBS trusts, we recognize the fair value of the commitment on the settlement date as a component of debt extinguishment gains and losses or in the cost basis of the debt issued, respectively.

Regular-way securities trades provide for delivery of securities within the time generally established by regulations or conventions in the market in which the trade occurs and are exempt from application of derivative accounting. Commitments to purchase or sell securities that we account for on a trade-date basis are also exempt from the derivative accounting requirements. We record the purchase and sale of an existing security on its trade date when the commitment to purchase or sell the existing security settles within the period of time that is customary in the market in which those trades take place.

Additionally, contracts for the forward purchase or sale of when-issued and to-be-announced (“TBA”) securities are exempt from the derivative accounting requirements if there is no other way to purchase or sell that security, delivery of that security and settlement will occur within the shortest period possible for that type of security, and it is probable at inception and throughout the term of the individual contract that physical delivery of the security will occur. Since our commitments for the purchase of when-issued and TBA securities can be net settled and we do not document that physical settlement is probable, we account for all such commitments as derivatives.

Derivative Instruments

We recognize all derivatives as either assets or liabilities in our consolidated balance sheets at their fair value on a trade date basis.

We offset the carrying amounts of certain derivatives that are in gain positions and loss positions as well as cash collateral receivables and payables associated with derivative positions pursuant to the terms of enforceable master netting arrangements. We offset these amounts only when we have the legal right to offset under the contract and we have met all of the offsetting conditions. For our over-the-counter (“OTC”) derivative positions, our master netting arrangements allow us to net derivative assets and liabilities with the same counterparty. For our cleared derivative contracts, our master netting arrangements allow us to net our exposure by clearing organization and by clearing member.

After offsetting, we report derivatives in a gain position in “Other assets” and derivatives in a loss position in “Other liabilities” in our consolidated balance sheets.

We evaluate financial instruments that we purchase or issue and other financial and non-financial contracts for embedded derivatives. To identify embedded derivatives that we must account for separately, we determine if: (1) the economic characteristics of the embedded derivative are not clearly and closely related to the economic characteristics of the financial instrument or other contract (*i.e.*, the host contract); (2) the financial instrument or other contract itself is not already measured at fair value with changes in fair value included in earnings; and (3) a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative. If the embedded derivative meets all three of these conditions, we elect to carry the hybrid contract in its entirety at fair value with changes in fair value recorded in earnings.

Collateral

We enter into various transactions where we pledge and accept collateral, the most common of which are our derivative transactions. Required collateral levels vary depending on the credit rating and type of counterparty. We also pledge and receive collateral under our repurchase and reverse repurchase agreements. In order to reduce potential exposure to repurchase counterparties, a third-party custodian typically maintains the collateral and any margin. We monitor the fair value

of the collateral received from our counterparties, and we may require additional collateral from those counterparties, as we deem appropriate.

Cash Collateral

We record cash collateral accepted from a counterparty that we have the right to use as “Cash and cash equivalents” and cash collateral accepted from a counterparty that we do not have the right to use as “Restricted cash” in our consolidated balance sheets. We net our obligation to return cash collateral pledged to us against the fair value of derivatives in a gain position recorded in “Other assets” in our consolidated balance sheets as part of our counterparty netting calculation.

For derivative positions with the same counterparty under master netting arrangements where we pledge cash collateral, we remove it from “Cash and cash equivalents” and net the right to receive it against the fair value of derivatives in a loss position recorded in “Other liabilities” in our consolidated balance sheets as a part of our counterparty netting calculation.

Non-Cash Collateral

We classify securities pledged to counterparties as either “Investments in securities” or “Cash and cash equivalents” in our consolidated balance sheets. Securities pledged to counterparties that have been consolidated with the underlying assets recognized as loans are included as “Mortgage loans” in our consolidated balance sheets.

Our liability to third party holders of Fannie Mae MBS that arises as the result of a consolidation of a securitization trust is collateralized by the underlying loans and/or mortgage-related securities.

Debt

Our consolidated balance sheets contain debt of Fannie Mae as well as debt of consolidated trusts. We report debt issued by us as “Debt of Fannie Mae” and by consolidated trusts as “Debt of consolidated trusts.” Debt issued by us represents debt that we issue to third parties to fund our general business activities and certain credit risk-sharing securities. The debt of consolidated trusts represents the amount of Fannie Mae MBS issued from such trusts that is held by third-party certificateholders and prepayable without penalty at any time. We report deferred items, including premiums, discounts and other cost basis adjustments, as adjustments to the related debt balances in our consolidated balance sheets.

We classify interest expense as either short-term or long-term based on the contractual maturity of the related debt. We recognize the amortization of premiums, discounts and other cost basis adjustments through interest expense using the effective interest method usually over the contractual term of the debt. Amortization of premiums, discounts and other cost basis adjustments begins at the time of debt issuance.

When we purchase a Fannie Mae MBS issued from a consolidated single-class securitization trust, we extinguish the related debt of the consolidated trust as the MBS debt is no longer owed to a third-party. We record debt extinguishment gains or losses related to debt of consolidated trusts to the extent that the purchase price of the MBS does not equal the carrying value of the related consolidated MBS debt reported in our consolidated balance sheet (including unamortized premiums, discounts and other cost basis adjustments) at the time of purchase as a component of “Other expenses, net” in our consolidated statements of operations and comprehensive income.

Income Taxes

We recognize deferred tax assets and liabilities based on the differences in the book and tax bases of assets and liabilities. We measure deferred tax assets and liabilities using enacted tax rates that are applicable to the period(s) that the differences are expected to reverse. We adjust deferred tax assets and liabilities for the effects of changes in tax laws and rates in the period of enactment. We recognize investment and other tax credits through our effective tax rate calculation assuming that we will be able to realize the full benefit of the credits. In 2018, we resumed investing in new LIHTC projects and elected the proportional amortization method for the associated tax credits. We amortize the cost of a LIHTC investment each reporting period in proportion to the tax credits and other tax benefits received. We recognize the resulting amortization as a component of the “provision for federal income taxes” in our consolidated statements of operations and comprehensive income.

We reduce our deferred tax assets by an allowance if, based on the weight of available positive and negative evidence, it is more likely than not (a probability of greater than 50%) that we will not realize some portion, or all, of the deferred tax asset. In December 2017, the Tax Cuts and Jobs Act (the “Tax Act”) was enacted which, among other things, reduced the federal corporate income tax rate from 35% to 21%, effective January 1, 2018.

We account for uncertain tax positions using a two-step approach whereby we recognize an income tax benefit if, based on the technical merits of a tax position, it is more likely than not that the tax position would be sustained upon examination by the taxing authority, which includes all related appeals and litigation. We then measure the recognized tax benefit based on the largest amount of tax benefit that is greater than 50% likely to be realized upon settlement with the taxing authority, considering all information available at the reporting date. We recognize interest expense and penalties on unrecognized tax benefits as “Other expenses, net” in our consolidated statements of operations and comprehensive income.

Earnings (Loss) per Share

Earnings (loss) per share ("EPS") is presented for basic and diluted EPS. We compute basic EPS by dividing net income (loss) attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. However, as a result of our conservatorship status and the terms of the senior preferred stock, no amounts would be available to distribute as dividends to common or preferred stockholders (other than to Treasury as the holder of the senior preferred stock). Net income (loss) attributable to common stockholders excludes amounts attributable to the senior preferred stock, which increase the liquidation preference as described above in "Senior Preferred Stock Purchase Agreement, Senior Preferred Stock and Warrant." Weighted average common shares includes 4.6 billion shares for the years ended December 31, 2019, 2018 and 2017 that would be issued upon the full exercise of the warrant issued to Treasury from the date the warrant was issued through December 31, 2019, 2018 and 2017, respectively.

The calculation of diluted EPS includes all the components of basic earnings per share, plus the dilutive effect of common stock equivalents such as convertible securities and stock options. Weighted-average shares outstanding is increased to include the number of additional common shares that would have been outstanding if the dilutive potential common shares had been issued. Our diluted EPS weighted-average shares outstanding includes 131 million shares of convertible preferred stock for the years ended December 31, 2019 and 2018. During periods in which a net loss attributable to common stockholders has been incurred, such as the year ended December 31, 2017, potential common equivalent shares outstanding are not included in the calculation because it would have an anti-dilutive effect.

New Accounting Guidance

The Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") 2016-13, Financial Instruments—Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments in June 2016, which was later amended by ASU 2019-04, ASU 2019-05 and ASU 2019-11. These ASUs (the "CECL standard") replace the existing incurred loss impairment methodology for loans that are collectively evaluated for impairment with a methodology that reflects lifetime expected credit losses and requires consideration of a broader range of reasonable and supportable forecast information to develop a lifetime credit loss estimate. The CECL standard also requires credit losses related to AFS debt securities to be recorded through an allowance for credit losses. Our adoption of this standard on January 1, 2020 did not have a material impact on our portfolio of AFS debt securities.

The CECL standard became effective for our fiscal year beginning January 1, 2020. We have changed our accounting policies and implemented system, model and process changes to adopt the standard. Upon adoption, we used a discounted cash flow method to measure expected credit losses on our single-family mortgage loans and an undiscounted loss method to measure expected credit losses on our multifamily mortgage loans. The models used to estimate credit losses incorporated our historical credit loss experience, adjusted for current economic forecasts and the current credit profile of our loan book of business. The models used reasonable and supportable forecasts for key economic drivers, such as home prices (single-family), rental income (multifamily) and capitalization rates (multifamily).

The adoption of the CECL standard on January 1, 2020 will reduce our retained earnings by $1.1 billion on an after-tax basis, which will be reflected in our financial statements for the quarter ending March 31, 2020. The adoption of this guidance increased our overall credit loss reserves primarily as the result of an increase in our single-family loan loss reserves that were previously evaluated on a collective basis for impairment. This increase was partially offset by a decrease in estimated credit losses on loans that were previously considered individually impaired (our troubled debt restructurings).

The increase in our single-family loan loss reserves that were previously evaluated on a collective basis was primarily driven by the migration from an incurred-loss approach, which allowed us to consider only default events and economic conditions that already existed as of each financial reporting date, to an estimate that incorporates both expected default events over the expected life of each mortgage loan and a forecast of home prices in different economic environments over a reasonable and supportable period. The increase in loss reserves for this portion of our book was low relative to its size due to the credit quality of these loans and because our current model forecasts home price growth.

The allowance for loan losses on the TDR book was already measured using an expected lifetime credit loss estimate. The expected credit losses on this portion of our single-family book decreased upon the adoption of CECL because the new guidance required us to exclude from our estimate of credit losses all pre-foreclosure and post-foreclosure costs that are expected to be advanced after the balance sheet date. Prior to the adoption of CECL, we incorporated these costs in our estimate of expected credit losses for this book.

2. Consolidations and Transfers of Financial Assets

We have interests in various entities that are considered to be VIEs. The primary types of entities are:

- securitization and resecuritization trusts, guaranteed by us via lender swap transactions;
- portfolio securitization transactions;
- commingled resecuritization trusts;
- mortgage-backed trusts that were not created by us;
- housing partnerships that are established to finance the acquisition, construction, development or rehabilitation of affordable multifamily and single-family housing; and
- certain credit risk transfer transactions.

These interests include investments in securities issued by VIEs, such as Fannie Mae MBS created pursuant to our securitization transactions. We consolidate the substantial majority of our single-class securitization trusts because our role as guarantor and master servicer provides us with the power to direct matters (primarily the servicing of mortgage loans) that impact the credit risk to which we are exposed. In contrast, we do not consolidate single-class securitization trusts when other organizations have the power to direct these activities unless we have the unilateral ability to dissolve the trust. We also do not consolidate our resecuritization trusts unless we have the unilateral ability to dissolve the trust. Historically, the vast majority of underlying assets of our resecuritization trusts were limited to Fannie Mae securities that were collateralized by mortgage loans held in consolidated trusts. However, with our issuance of UMBS beginning in June 2019, we include securities issued by Freddie Mac in some of our resecuritization trusts. The mortgage loans that serve as collateral for Freddie Mac-issued securities are not held in trusts that are consolidated by Fannie Mae.

Types of VIEs

Securitization and Resecuritization Trusts

Under our lender swap and portfolio securitization transactions, mortgage loans are transferred to a trust specifically for the purpose of issuing a single class of guaranteed securities that are collateralized by the underlying mortgage loans referred to as “first-level securities.” The trust’s permitted activities include receiving the transferred assets, issuing beneficial interests, establishing the guaranty and servicing the underlying mortgage loans. In our capacity as issuer, master servicer, trustee and guarantor, we earn fees for our obligations to each trust. Additionally, we may retain or purchase a portion of the securities issued by each trust.

In our structured securitization transactions, we earn fees for assisting lenders and dealers with the design and issuance of structured mortgage-related securities, referred to as “second-level securities.” In contrast to first-level securities, the trust assets can include both Fannie Mae securities and Freddie Mac securities as the underlying collateral. These structured securities include Fannie Megas® and Supers™, which are single-class resecuritizations, as well as REMICs and SMBS, which are multi-class resecuritizations, and separate the cash flows from underlying assets into separately tradable interests. When we issue a structured security backed in whole or in part by Freddie Mac securities, we provide a new and separate guaranty of principal and interest on the newly-formed structured security. If Freddie Mac were to fail to make a payment due on its securities underlying a Fannie Mae-issued structured security, we would be obligated under our guaranty to fund any shortfall. To the extent that the trust assets are Fannie Mae securities, the trust has permitted activities that are similar to those for our lender swap and portfolio securitization transactions. Additionally, we may retain or purchase a portion of the securities issued by each trust.

We also hold investments in mortgage-backed securities that have been issued via private-label trusts. These trusts are structured to provide investors with a beneficial interest in a pool of receivables or other financial assets, typically mortgage loans. The trusts act as vehicles to allow loan originators to securitize assets. Securities are structured from the underlying pool of assets to provide for varying degrees of risk. The originators of the financial assets or the underwriters of the transaction create the trusts and typically own the residual interest in the trusts’ assets. Our involvement in these entities is typically limited to our recorded investment in the beneficial interests that we have purchased.

Limited Partnerships

In 2018, we resumed making new investments in various limited partnerships that sponsor affordable housing projects utilizing the LIHTC pursuant to Section 42 of the Internal Revenue Code. The purpose of these investments is to increase the supply of affordable housing in the United States and to serve communities in need. In addition, our investments in LIHTC partnerships generate both tax credits and net operating losses that may reduce our federal income tax liability. Our LIHTC investments primarily represent limited partnership interests in entities that have been organized by a fund manager who acts as the general partner. These fund investments seek out equity investments in LIHTC operating partnerships that have been established to identify, develop and operate multifamily housing that is leased to qualifying residential tenants.

SPVs Associated with Our Credit Risk Transfer Programs

We transfer mortgage credit risk to investors through Connecticut Avenue Securities ("CAS") REMIC and CAS credit-linked note ("CLN") trusts. In October 2019, we issued our first Multifamily Connecticut Avenue Securities ("MCAS") transaction, which is a CAS CLN and in December 2019, we issued our first single-family CAS CLN. The structure of CAS CLNs is similar to CAS REMICs; however, CAS CLNs allow us to transfer risk on reference pools containing seasoned loans. Since the REMIC election was not made on the loans in the reference pools at the time of acquisition, these trusts do not qualify as REMICs. Each CAS trust is a separate legal entity which issues notes that are fully collateralized by amounts deposited into a collateral account held by the CAS trust. To the extent that collateral held by the CAS trust and the earnings thereon are insufficient relative to the payments due to holders of the CAS notes, we may be required to make payments to the CAS trust. The CAS trusts qualify as VIEs. We do not have the power to direct significant activities of the CAS trusts while the CAS notes are outstanding, and, therefore, we do not consolidate CAS trusts.

Consolidated VIEs

If an entity is a VIE, we consider whether our variable interest in that entity causes us to be the primary beneficiary. The primary beneficiary of the VIE is required to consolidate and account for the assets, liabilities and noncontrolling interests of the VIE in its consolidated financial statements. An enterprise is deemed to be the primary beneficiary when the enterprise has the power to direct the activities of the VIE that most significantly impact the entity's economic performance and exposure to benefits and/or losses could potentially be significant to the entity. In general, the investors in the obligations of consolidated VIEs have recourse only to the assets of those VIEs and do not have recourse to us, except where we provide a guaranty to the VIE.

We continually assess whether we are the primary beneficiary of the VIEs with which we are involved and therefore may consolidate or deconsolidate a VIE through the duration of our involvement. As of December 31, 2019, we did not consolidate any VIEs that were not already consolidated as of December 31, 2018. However, as of December 31, 2019, we deconsolidated certain VIEs that were consolidated and had combined total assets of $1.5 billion in unpaid principal balance as of December 31, 2018. The majority of this activity related to the deconsolidation of multi-class resecuritization trusts containing consolidated Fannie Mae MBS. This resulted in the recognition of MBS debt outstanding and the fair value of our retained interests as securities in our consolidated balance sheets.

Unconsolidated VIEs

We do not consolidate VIEs when we are not deemed to be the primary beneficiary. Our unconsolidated VIEs include securitization and resecuritization trusts, limited partnerships, and certain SPVs designed to transfer credit risk. The following table displays the carrying amount and classification of our assets and liabilities that relate to our involvement with unconsolidated securitization and resecuritization trusts.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Assets and liabilities recorded in our consolidated balance sheets related to unconsolidated mortgage-backed trusts:		
Assets:		
Trading securities:		
Fannie Mae	**$ 2,543**	$ 1,422
Non-Fannie Mae	**5,100**	4,809
Total trading securities	**7,643**	6,231
Available-for-sale securities:		
Fannie Mae	**1,524**	1,704
Non-Fannie Mae	**574**	1,207
Total available-for-sale securities	**2,098**	2,911
Other assets	**56**	66
Other liabilities	**(78)**	(101)
Net carrying amount	**$ 9,719**	$ 9,107

Our maximum exposure to loss generally represents the greater of our recorded investment in the entity or the unpaid principal balance of the assets covered by our guaranty. Our involvement in unconsolidated resecuritization trusts may give rise to additional exposure to loss depending on the type of resecuritization trust. Fannie Mae non-commingled resecuritization trusts are backed entirely by Fannie Mae MBS. These non-commingled single-class and multi-class resecuritization trusts are not consolidated and do not give rise to any additional exposure to loss as we already consolidate the underlying collateral.

Fannie Mae commingled resecuritization trusts are backed in whole or in part by Freddie Mac securities. The guaranty that we provide to these commingled resecuritization trusts may increase our exposure to loss to the extent that we are providing a guaranty for the timely payment and interest on the underlying Freddie Mac securities that we have not previously guaranteed. Our maximum exposure to loss for these unconsolidated trusts is measured by the amount of Freddie Mac securities that are held in these resecuritization trusts. However, a portion of these Freddie Mac securities may be backed in whole or in part by Fannie Mae MBS. To the extent that these Freddie Mac securities are backed by Fannie Mae MBS, our guarantee to the resecuritization trust does not subject us to any additional exposure to credit risk. Thus, our actual exposure to credit risk from Freddie Mac securities held in our resecuritization trusts is likely lower than the disclosed maximum exposure to loss. Our maximum exposure to loss related to unconsolidated securitization and resecuritization trusts was approximately $62 billion and $14 billion as of December 31, 2019 and 2018, respectively. The total assets of our unconsolidated securitization and resecuritization trusts were approximately $130 billion and $80 billion as of December 31, 2019 and 2018, respectively.

The maximum exposure to loss for our unconsolidated limited partnerships and similar legal entities, which consist of LIHTC, community investments and other entities, was $98 million and the related carrying value was $79 million as of December 31, 2019. As of December 31, 2018, the maximum exposure to loss was $111 million and the related carrying value was $89 million. The total assets of these limited partnership investments were $2.0 billion and $2.3 billion as of December 31, 2019 and 2018, respectively.

The maximum exposure to loss related to our involvement with unconsolidated SPVs that transfer credit risk represents the unpaid principal balance and accrued interest payable of obligations issued by the CAS SPVs. The maximum exposure to loss related to these unconsolidated SPVs was $9.5 billion and $920 million as of December 31, 2019 and 2018, respectively. The total assets related to these unconsolidated SPVs were $9.5 billion and $931 million as of December 31, 2019 and 2018, respectively.

The unpaid principal balance of our multifamily loan portfolio was $327.6 billion as of December 31, 2019. As our lending relationship does not provide us with a controlling financial interest in the borrower entity, we do not consolidate these borrowers regardless of their status as either a VIE or a voting interest entity. We have excluded these entities from our VIE disclosures. However, the disclosures we have provided in “Note 3, Mortgage Loans,” “Note 4, Allowance for Loan Losses” and “Note 6, Financial Guarantees” with respect to this population are consistent with the FASB’s stated objectives for the disclosures related to unconsolidated VIEs.

Transfers of Financial Assets

We issue Fannie Mae MBS through portfolio securitization transactions by transferring pools of mortgage loans or mortgage-related securities to one or more trusts or special purpose entities. We are considered to be the transferor when we transfer assets from our own retained mortgage portfolio in a portfolio securitization transaction. For the years ended December 31, 2019, 2018 and 2017, the unpaid principal balance of portfolio securitizations was $278.6 billion, $228.4 billion and $252.7 billion, respectively. The substantial majority of these portfolio securitization transactions generally do not qualify for sale treatment. Portfolio securitization trusts that do qualify for sale treatment primarily consist of loans that are guaranteed or insured, in whole or in part, by the U.S. government.

We retain interests from the transfer and sale of mortgage-related securities to unconsolidated single-class and multi-class portfolio securitization trusts. As of December 31, 2019, the unpaid principal balance of retained interests was $2.9 billion and its related fair value was $4.0 billion. The unpaid principal balance of retained interests was $1.5 billion and its related fair value was $2.2 billion as of December 31, 2018. For the years ended December 31, 2019, 2018 and 2017, the principal, interest and other fees received on retained interests was $595 million, $585 million and $1.1 billion, respectively.

3. Mortgage Loans

We own single-family mortgage loans, which are secured by four or fewer residential dwelling units, and multifamily mortgage loans, which are secured by five or more residential dwelling units. We classify these loans as either HFI or HFS. We report the carrying value of HFI loans at the unpaid principal balance, net of unamortized premiums and discounts, other cost basis adjustments, and an allowance for loan losses. We report the carrying value of HFS loans at the lower of cost or fair value and record valuation changes in “Investment gains, net” in our consolidated statements of operations and comprehensive income. We define the recorded investment of HFI loans as unpaid principal balance, net of unamortized premiums and discounts, other cost basis adjustments, and accrued interest receivable.

For purposes of the single-family mortgage loan disclosures below, we define "primary" class as mortgage loans that are not included in other loan classes; "government" class as mortgage loans that are guaranteed or insured, in whole or in part, by the U.S. government or one of its agencies, and that are not Alt-A; and "other" class as loans with higher-risk characteristics, such as interest-only loans and negative-amortizing loans, that are neither government nor Alt-A.

The following table displays the carrying value of our mortgage loans.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Single-family	**$ 2,972,361**	$ 2,929,925
Multifamily	**327,593**	293,858
Total unpaid principal balance of mortgage loans	**3,299,954**	3,223,783
Cost basis and fair value adjustments, net	**43,224**	39,815
Allowance for loan losses for HFI loans	**(9,016)**	(14,203)
Total mortgage loans	**$ 3,334,162**	$ 3,249,395

The following table displays information about our redesignated mortgage loans.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in millions)		
Carrying value of loans redesignated from HFI to HFS[1]	**$ 17,126**	$ 21,960	$ 12,886
Carrying value of loans redesignated from HFS to HFI[1]	**28**	56	113
Loans sold - unpaid principal balance	**19,737**	21,918	12,184
Realized gains on sale of mortgage loans	**1,238**	444	723

(1) Represents the carrying value of the loans after redesignation, excluding allowance.

The recorded investment of single-family mortgage loans for which formal foreclosure proceedings are in process was $7.6 billion and $10.1 billion as of December 31, 2019 and 2018, respectively. As a result of our various loss mitigation and foreclosure prevention efforts, we expect that a portion of the loans in the process of formal foreclosure proceedings will not ultimately foreclose.

Aging Analysis

The following tables display an aging analysis of the total recorded investment in our HFI mortgage loans by portfolio segment and class, excluding loans for which we have elected the fair value option.

	As of December 31, 2019							
	30 - 59 Days Delinquent	60 - 89 Days Delinquent	Seriously Delinquent[1]	Total Delinquent	Current	Total	Recorded Investment in Loans 90 Days or More Delinquent and Accruing Interest	Recorded Investment in Nonaccrual Loans
	(Dollars in millions)							
Single-family:								
Primary	$ 28,909	$ 7,497	$ 13,695	$ 50,101	$ 2,886,520	$ 2,936,621	$ 29	$ 24,573
Government[2]	44	21	133	198	16,931	17,129	133	—
Alt-A	1,721	602	1,290	3,613	38,642	42,255	1	2,198
Other	559	206	467	1,232	9,074	10,306	1	775
Total single-family	31,233	8,326	15,585	55,144	2,951,167	3,006,311	164	27,546
Multifamily[3]	7	N/A	115	122	330,496	330,618	—	435
Total	$ 31,240	$ 8,326	$ 15,700	$ 55,266	$ 3,281,663	$ 3,336,929	$ 164	$ 27,981

	As of December 31, 2018							
	30 - 59 Days Delinquent	60 - 89 Days Delinquent	Seriously Delinquent[1]	Total Delinquent	Current	Total	Recorded Investment in Loans 90 Days or More Delinquent and Accruing Interest	Recorded Investment in Nonaccrual Loans
	(Dollars in millions)							
Single-family:								
Primary	$ 30,471	$ 7,881	$ 14,866	$ 53,218	$ 2,816,047	$ 2,869,265	$ 22	$ 26,170
Government[2]	57	17	169	243	21,887	22,130	169	—
Alt-A	2,332	821	1,844	4,997	48,274	53,271	2	3,082
Other	804	283	713	1,800	13,038	14,838	2	1,128
Total single-family	33,664	9,002	17,592	60,258	2,899,246	2,959,504	195	30,380
Multifamily[3]	56	N/A	171	227	295,437	295,664	—	492
Total	$ 33,720	$ 9,002	$ 17,763	$ 60,485	$ 3,194,683	$ 3,255,168	$ 195	$ 30,872

(1) Single-family seriously delinquent loans are loans that are 90 days or more past due or in the foreclosure process. Multifamily seriously delinquent loans are loans that are 60 days or more past due.

(2) Primarily consists of reverse mortgages, which due to their nature, are not aged and are included in the current column.

(3) Multifamily loans 60-89 days delinquent are included in the seriously delinquent column.

Credit Quality Indicators

The following table displays the total recorded investment in our single-family HFI loans by class and credit quality indicator, excluding loans for which we have elected the fair value option. The estimated mark-to-market 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.

	As of December 31,					
	2019[1]			2018[1]		
	Primary	Alt-A	Other	Primary	Alt-A	Other
	(Dollars in millions)					
Estimated mark-to-market LTV ratio:[2]						
Less than or equal to 80%	**$ 2,556,685**	**$ 37,932**	**$ 9,002**	$ 2,521,766	$ 45,476	$ 12,291
Greater than 80% and less than or equal to 90%	**243,459**	**2,225**	**642**	228,614	3,804	1,195
Greater than 90% and less than or equal to 100%	**131,653**	**1,078**	**318**	109,548	1,997	645
Greater than 100%	**4,824**	**1,020**	**344**	9,337	1,994	707
Total	**$ 2,936,621**	**$ 42,255**	**$ 10,306**	$ 2,869,265	$ 53,271	$ 14,838

(1) Excludes the “government” class, which consists of $17.1 billion and $22.1 billion as of December 31, 2019 and 2018, respectively, of mortgage loans guaranteed or insured, in whole or in part, by the U.S. government or one of its agencies, that are not Alt-A loans. This class is primarily reverse mortgages for which we do not calculate an estimated mark-to-market LTV ratio.

(2) The aggregate estimated mark-to-market LTV ratio is based on the unpaid principal balance of the loan divided by the estimated current value of the property as of the end of each reported period, which we calculate using an internal valuation model that estimates periodic changes in home value.

The following table displays the total recorded investment in our multifamily HFI loans by credit quality indicator, excluding loans for which we have elected the fair value option.

	As of December 31,	
	2019	2018
	(Dollars in millions)	
Credit risk profile by internally assigned grade:		
Non-classified	**$ 323,773**	$ 289,231
Classified[1]	**6,845**	6,433
Total	**$ 330,618**	$ 295,664

[1] Represents loans classified as "Substandard" or "Doubtful." Loans classified as "Substandard" have a well-defined weakness that jeopardizes the timely full repayment. Loans classified as "Doubtful" have a weakness that makes collection or liquidation in full highly questionable and improbable based on existing conditions and values. As of December 31, 2019, we had loans with recorded investment of $5 million classified as doubtful, compared with $1 million as of December 31, 2018.

Individually Impaired Loans

Individually impaired loans include TDRs, acquired credit-impaired loans and multifamily loans that we have assessed as probable that we will not collect all contractual amounts due, regardless of whether we are currently accruing interest, excluding loans classified as HFS and loans for which we have elected the fair value option. The following tables display the unpaid principal balance, total recorded investment, related allowance, average recorded investment and total interest income recognized for individually impaired loans.

	As of December 31,					
	2019			2018		
	Unpaid Principal Balance	Total Recorded Investment	Related Allowance for Loan Losses	Unpaid Principal Balance	Total Recorded Investment	Related Allowance for Loan Losses
	(Dollars in millions)					
Individually impaired loans:						
With related allowance recorded:						
Single-family:						
Primary	**$ 64,201**	**$ 62,150**	**$ (5,884)**	$ 81,791	$ 78,688	$ (9,406)
Government	**243**	**247**	**(48)**	264	270	(55)
Alt-A	**11,453**	**10,535**	**(1,676)**	16,576	15,158	(2,793)
Other	**3,485**	**3,296**	**(567)**	5,482	5,169	(1,001)
Total single-family	**79,382**	**76,228**	**(8,175)**	104,113	99,285	(13,255)
Multifamily	**314**	**315**	**(45)**	197	196	(40)
Total individually impaired loans with related allowance recorded	**79,696**	**76,543**	**(8,220)**	104,310	99,481	(13,295)
With no related allowance recorded:[1]						
Single-family:						
Primary	**19,047**	**18,249**	**—**	15,939	15,191	—
Government	**64**	**60**	**—**	61	56	—
Alt-A	**2,339**	**2,098**	**—**	2,628	2,363	—
Other	**611**	**561**	**—**	718	666	—
Total single-family	**22,061**	**20,968**	**—**	19,346	18,276	—
Multifamily	**363**	**365**	**—**	343	346	—
Total individually impaired loans with no related allowance recorded	**22,424**	**21,333**	**—**	19,689	18,622	—
Total individually impaired loans[2]	**$ 102,120**	**$ 97,876**	**$ (8,220)**	$ 123,999	$ 118,103	$ (13,295)

[1] The discounted cash flows or collateral value equals or exceeds the carrying value of the loan and, as such, no valuation allowance is required.

[2] Includes single-family loans restructured in a TDR with a recorded investment of $96.9 billion and $117.2 billion as of December 31, 2019 and 2018, respectively. Includes multifamily loans restructured in a TDR with a recorded investment of $102 million and $187 million as of December 31, 2019 and 2018, respectively.

	For the Year Ended December 31,								
	2019			2018			2017		
	Average Recorded Investment	Total Interest Income Recognized	Interest Income Recognized on a Cash Basis	Average Recorded Investment	Total Interest Income Recognized	Interest Income Recognized on a Cash Basis	Average Recorded Investment	Total Interest Income Recognized	Interest Income Recognized on a Cash Basis
	(Dollars in millions)								
Individually impaired loans:									
With related allowance recorded:									
Single-family:									
Primary	**$ 71,048**	**$ 2,954**	**$ 264**	$ 85,063	$ 3,522	$ 381	$ 92,893	$ 3,721	$ 319
Government	**263**	**11**	**—**	276	17	—	292	10	—
Alt-A	**12,685**	**540**	**38**	18,202	772	57	23,536	929	56
Other	**4,177**	**154**	**13**	6,691	250	19	9,158	318	19
Total single-family	**88,173**	**3,659**	**315**	110,232	4,561	457	125,879	4,978	394
Multifamily	**287**	**7**	**—**	235	3	—	273	9	—
Total individually impaired loans with related allowance recorded	**88,460**	**3,666**	**315**	110,467	4,564	457	126,152	4,987	394
With no related allowance recorded:[1]									
Single-family:									
Primary	**16,243**	**1,008**	**150**	15,005	967	119	15,166	1,107	96
Government	**57**	**4**	**—**	57	4	—	61	3	—
Alt-A	**2,176**	**169**	**15**	2,625	218	17	3,000	270	13
Other	**599**	**38**	**4**	807	56	5	997	84	4
Total single-family	**19,075**	**1,219**	**169**	18,494	1,245	141	19,224	1,464	113
Multifamily	**375**	**31**	**—**	336	14	—	297	19	—
Total individually impaired loans with no related allowance recorded	**19,450**	**1,250**	**169**	18,830	1,259	141	19,521	1,483	113
Total individually impaired loans	**$ 107,910**	**$ 4,916**	**$ 484**	$ 129,297	$ 5,823	$ 598	$ 145,673	$ 6,470	$ 507

(1) The discounted cash flows or collateral value equals or exceeds the carrying value of the loan and, as such, no valuation allowance is required.

Troubled Debt Restructurings

A modification to the contractual terms of a loan that results in granting a concession to a borrower experiencing financial difficulties is considered a TDR. In addition to formal loan modifications, including loan modifications in a trial period, we also engage in other loss mitigation activities with troubled borrowers, which include repayment plans and forbearance arrangements, both of which represent informal agreements with the borrower that do not result in the legal modification of the loan's contractual terms. We account for these informal restructurings as a TDR if we defer more than three missed payments. We also classify loans to certain borrowers who have received bankruptcy relief as TDRs. For discussion of how modifications are factored into the determination of the allowance for loans losses, see "Note 1, Summary of Significant Accounting Policies."

The substantial majority of the loan modifications we complete result in term extensions, interest rate reductions or a combination of both. The average term extension of a single-family modified loan was 162 months, 109 months and 153 months for the years ended December 31, 2019, 2018 and 2017, respectively. The average interest rate reduction was 0.13, 0.21 and 0.56 percentage points for the years ended December 31, 2019, 2018 and 2017, respectively.

The following table displays the number of loans and recorded investment in loans classified as a TDR.

	For the Year Ended December 31,					
	2019		2018		2017	
	Number of Loans	Recorded Investment[1]	Number of Loans	Recorded Investment[1]	Number of Loans	Recorded Investment[1]
	(Dollars in millions)					
Single-family:						
Primary	**48,858**	**$ 7,688**	89,192	$ 13,437	59,708	$ 8,247
Government	**72**	**8**	115	11	171	18
Alt-A	**2,465**	**313**	5,378	697	5,369	771
Other	**464**	**81**	1,127	208	1,158	207
Total single-family	**51,859**	**8,090**	95,812	14,353	66,406	9,243
Multifamily	**11**	**56**	14	74	8	99
Total TDRs	**51,870**	**$ 8,146**	95,826	$ 14,427	66,414	$ 9,342

[1] Based on the nature of our modification programs, which do not include principal or past-due interest forgiveness, there is not a material difference between the recorded investment in our loans pre- and post- modification. Therefore, these amounts represent recorded investment post-modification.

The decrease in loans classified as TDRs for the year ended December 31, 2019 compared with the year ended December 31, 2018 was primarily attributable to significantly higher single-family loan modifications and other forms of loss mitigation in the areas affected by Hurricanes Harvey, Irma and Maria that resulted in a restructuring of the terms of these loans.

For loans that had a payment default in the period presented and that were classified as a TDR in the twelve months prior to the payment default, the following table displays the number of loans and our recorded investment in these loans at the time of payment default. For the purposes of this disclosure, we define loans that had a payment default as: single-family and multifamily loans with completed TDRs that liquidated during the period, either through foreclosure, deed-in-lieu of foreclosure, or a short sale; single-family loans with completed modifications that are two or more months delinquent during the period; or multifamily loans with completed modifications that are one or more months delinquent during the period.

	For the Year Ended December 31,					
	2019		2018		2017	
	Number of Loans	Recorded Investment	Number of Loans	Recorded Investment	Number of Loans	Recorded Investment
	(Dollars in millions)					
Single-family:						
Primary	**15,875**	**$ 2,425**	18,613	$ 2,697	19,539	$ 2,722
Government	**74**	**10**	55	7	91	10
Alt-A	**1,453**	**218**	2,412	386	2,588	400
Other	**447**	**87**	662	131	760	145
Total single-family	**17,849**	**2,740**	21,742	3,221	22,978	3,277
Multifamily	**2**	**18**	2	3	2	12
Total TDRs that subsequently defaulted	**17,851**	**$ 2,758**	21,744	$ 3,224	22,980	$ 3,289

4. Allowance for Loan Losses

We maintain an allowance for loan losses for HFI loans held by Fannie Mae and by consolidated Fannie Mae MBS trusts, excluding loans for which we have elected the fair value option. When calculating our allowance for loan losses, we consider the unpaid principal balance, net of unamortized premiums and discounts, and other cost basis adjustments of HFI loans at the balance sheet date.

The following table displays changes in our single-family, multifamily and total allowance for loan losses.

	For the Year Ended December 31,		
	2019	2018	2017
	(Dollars in millions)		
Single-family allowance for loan losses:			
Beginning balance	**$ (13,969)**	$ (18,849)	$ (23,283)
Benefit (provision) for loan losses[(1)]	**3,988**	2,990	1,994
Charge-offs	**1,299**	2,148	2,795
Recoveries	**(71)**	(240)	(326)
Other	**(6)**	(18)	(29)
Ending balance	**$ (8,759)**	$ (13,969)	$ (18,849)
Multifamily allowance for loan losses:			
Beginning balance	**$ (234)**	$ (235)	$ (182)
Benefit (provision) for loan losses[(1)]	**(27)**	(3)	(53)
Charge-offs	**8**	4	3
Recoveries	**(4)**	—	(3)
Ending balance	**$ (257)**	$ (234)	$ (235)
Total allowance for loan losses:			
Beginning balance	**$ (14,203)**	$ (19,084)	$ (23,465)
Benefit (provision) for loan losses[(1)]	**3,961**	2,987	1,941
Charge-offs	**1,307**	2,152	2,798
Recoveries	**(75)**	(240)	(329)
Other	**(6)**	(18)	(29)
Ending balance	**$ (9,016)**	$ (14,203)	$ (19,084)

(1) Benefit (provision) for loan losses is included in "Benefit for credit losses" in our consolidated statements of operations and comprehensive income.

The following table displays the allowance for loan losses and recorded investment in our HFI loans by impairment or allowance methodology and portfolio segment, excluding loans for which we have elected the fair value option.

	As of December 31,					
	2019			2018		
	Single-Family	Multifamily	Total	Single-Family	Multifamily	Total
	(Dollars in millions)					
Allowance for loan losses by segment:						
Individually impaired loans	**$ (8,175)**	**$ (45)**	**$ (8,220)**	$ (13,255)	$ (40)	$ (13,295)
Collectively reserved loans	**(584)**	**(212)**	**(796)**	(714)	(194)	(908)
Total allowance for loan losses	**$ (8,759)**	**$ (257)**	**$ (9,016)**	$ (13,969)	$ (234)	$ (14,203)
Recorded investment in loans by segment:						
Individually impaired loans	**$ 97,196**	**$ 680**	**$ 97,876**	$ 117,561	$ 542	$ 118,103
Collectively reserved loans	**2,909,115**	**329,938**	**3,239,053**	2,841,943	295,122	3,137,065
Total recorded investment in loans	**$ 3,006,311**	**$ 330,618**	**$ 3,336,929**	$ 2,959,504	$ 295,664	$ 3,255,168

5. Investments in Securities

Trading Securities

Trading securities are recorded at fair value with subsequent changes in fair value recorded as “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income. The following table displays our investments in trading securities.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Mortgage-related securities:		
Fannie Mae[(1)]	**$ 3,424**	$ 1,467
Other agency[(2)]	**4,490**	3,503
Private-label and other mortgage securities	**629**	1,306
Total mortgage-related securities (includes $896 and $32, respectively, related to consolidated trusts)	**8,543**	6,276
Non-mortgage-related securities:		
U.S. Treasury securities	**39,501**	35,502
Other securities	**79**	89
Total non-mortgage-related securities	**39,580**	35,591
Total trading securities	**$ 48,123**	$ 41,867

(1) In the second quarter of 2019, we implemented the Single Security Initiative and recognized $1.4 billion in mortgage-related securities that had previously been consolidated.

(2) Consists of Freddie Mac and Ginnie Mae mortgage-related securities.

The decrease in private-label and other mortgage securities for the year ended December 31, 2019 compared with the year ended December 31, 2018 was primarily attributable to sales of Alt-A and subprime private-label securities.

The following table displays information about our net trading gains (losses).

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in millions)		
Net trading gains	**$ 322**	$ 126	$ 190
Net trading gains recognized in the period related to securities still held at period end	**238**	55	161

Available-for-Sale Securities

We record AFS securities at fair value with unrealized gains and losses, recorded net of tax, as a component of “Other comprehensive loss” in our consolidated statements of operations and comprehensive income. We recognize realized gains and losses from the sale of AFS securities in “Investment gains, net.”

The following table displays the gross realized gains and proceeds on sales of AFS securities.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in millions)		
Gross realized gains	**$ 265**	$ 375	$ 487
Total proceeds (excludes initial sale of securities from new portfolio securitizations)	**537**	662	1,780

The following tables display the amortized cost, gross unrealized gains and losses, and fair value by major security type for AFS securities.

	As of December 31, 2019			
	Total Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses[2]	Total Fair Value
	(Dollars in millions)			
Fannie Mae	$ 1,445	$ 85	$ (10)	$ 1,520
Other agency	183	15	—	198
Alt-A and subprime private-label securities	34	23	—	57
Mortgage revenue bonds	309	9	(3)	315
Other mortgage-related securities	310	5	(1)	314
Total	$ 2,281	$ 137	$ (14)	$ 2,404

	As of December 31, 2018			
	Total Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses[2]	Total Fair Value
	(Dollars in millions)			
Fannie Mae	$ 1,754	$ 69	$ (26)	$ 1,797
Other agency	239	17	—	256
Alt-A and subprime private-label securities	325	267	—	592
Mortgage revenue bonds	425	13	(4)	434
Other mortgage-related securities	336	14	—	350
Total	$ 3,079	$ 380	$ (30)	$ 3,429

(1) Amortized cost consists of unpaid principal balance, unamortized premiums, discounts and other cost basis adjustments, as well as OTTI recognized in “Investment gains, net” in our consolidated statements of operations and comprehensive income.

(2) Represents the gross unrealized losses on securities for which we have not recognized OTTI, as well as the noncredit component of OTTI and cumulative changes in fair value of securities for which we previously recognized the credit component of OTTI in “Accumulated other comprehensive income” in our consolidated balance sheets.

The decrease in Alt-A and subprime private-label for the year ended December 31, 2019 compared with the year ended December 31, 2018 was primarily attributable to sales of subprime private-label securities.

The following tables display additional information regarding gross unrealized losses and fair value by major security type for AFS securities in an unrealized loss position.

	As of December 31, 2019			
	Less Than 12 Consecutive Months		12 Consecutive Months or Longer	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
	(Dollars in millions)			
Fannie Mae	$ —	$ —	$ (10)	$ 337
Mortgage revenue bonds	—	—	(3)	3
Other mortgage-related securities	(1)	130	—	—
Total	$ (1)	$ 130	$ (13)	$ 340

	As of December 31, 2018			
	Less Than 12 Consecutive Months		12 Consecutive Months or Longer	
	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value
	(Dollars in millions)			
Fannie Mae	$ —	$ —	$ (26)	$ 487
Mortgage revenue bonds	(1)	24	(3)	19
Total	$ (1)	$ 24	$ (29)	$ 506

Other-Than-Temporary Impairments

For AFS securities, OTTI is considered to have occurred when the fair value of a debt security is below its amortized cost basis and we intend to sell or it is more likely than not that we will be required to sell the security before recovery. Additionally, OTTI is considered to have occurred if we do not expect to recover the entire amortized cost basis of a debt security even if we do not intend to sell the security or it is not more likely than not we will be required to sell the security before recovery.

The balance of the unrealized credit loss component of AFS debt securities held by us and recognized in our consolidated statements of operations and comprehensive income was $36 million, $635 million and $1.1 billion as of December 31, 2019, 2018 and 2017, respectively. The decrease for the years ended 2019 and 2018 was primarily driven by securities that we no longer hold in our portfolio.

The following table displays net unrealized gains on AFS securities and other amounts within accumulated other comprehensive income ("AOCI"), net of tax, by major categories.

	As of December 31,		
	2019	2018	2017
	(Dollars in millions)		
Net unrealized gains on AFS securities for which we have not recorded OTTI	**$ 97**	$ 52	$ 87
Net unrealized gains on AFS securities for which we have recorded OTTI	**—**	224	423
Other	**34**	46	43
Accumulated other comprehensive income	**$ 131**	$ 322	$ 553

Maturity Information

The following table displays the amortized cost and fair value of our AFS securities by major security type and remaining contractual maturity, assuming no principal prepayments. The contractual maturity of mortgage-backed securities is not a reliable indicator of their expected life because borrowers generally have the right to prepay their obligations at any time.

	As of December 31, 2019									
	Total Amortized Cost	Total Fair Value	One Year or Less		After One Year Through Five Years		After Five Years Through Ten Years		After Ten Years	
			Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
	(Dollars in millions)									
Fannie Mae	$ 1,445	$ 1,520	$ —	$ —	$ 15	$ 16	$ 95	$ 104	$ 1,335	$ 1,400
Other agency	183	198	—	—	18	18	24	27	141	153
Alt-A and subprime private-label securities	34	57	—	—	—	—	3	3	31	54
Mortgage revenue bonds	309	315	2	2	31	32	29	30	247	251
Other mortgage-related securities	310	314	—	—	—	—	24	26	286	288
Total	$ 2,281	$ 2,404	$ 2	$ 2	$ 64	$ 66	$ 175	$ 190	$ 2,040	$ 2,146
Weighted-average yield [1]	6.48%		5.51%		6.30%		6.19%		6.51%	

[1] Yields are determined by dividing interest income (including amortization and accretion of premiums, discounts and other cost basis adjustments) by amortized cost balances as of year-end. Yields on tax-exempt obligations have been computed on a tax equivalent basis.

6. Financial Guarantees

We generate revenue by absorbing the credit risk of mortgage loans in unconsolidated trusts in exchange for a guaranty fee. We also provide credit enhancements on taxable or tax-exempt mortgage revenue bonds issued by state and local governmental entities to finance multifamily housing for low- and moderate-income families. Additionally, we issue long-term standby commitments that generally require us to purchase loans from lenders if the loans meet certain delinquency criteria.

We recognize a guaranty obligation for our obligation to stand ready to perform on our guarantees to unconsolidated trusts and other guaranty arrangements. These off-balance sheet guarantees expose us to credit losses primarily relating to the unpaid principal balance of our unconsolidated Fannie Mae MBS and other financial guarantees. The remaining contractual terms of our guarantees range from 1 day to 33 years; however, the actual term of each guaranty may be significantly less than the contractual term based on the prepayment characteristics of the related mortgage loans.

As the guarantor of structured securities backed in whole or in part by Freddie Mac-issued securities, we extend our guaranty to the underlying Freddie Mac securities in our resecuritization trusts. However, Freddie Mac continues to guarantee the payment of principal and interest on the underlying Freddie Mac securities that we have resecuritized. We do not charge an incremental guaranty fee to include Freddie Mac securities in the structured securities that we issue. As described in “Note 1, Summary of Significant Accounting Policies,” in June 2019, we entered into an indemnification agreement under which Freddie Mac agreed to indemnify us for losses caused by its failure to meet its payment or other specified obligations under the trust agreements pursuant to which the underlying resecuritized securities were issued. As a result, and due to the funding commitment available to Freddie Mac through its senior preferred stock purchase agreement with Treasury, we have concluded that the associated credit risk is negligible. As such, we exclude from the following table approximately $50.1 billion of Freddie Mac securities backing unconsolidated Fannie Mae-issued structured securities as of December 31, 2019.

The following table displays our off-balance sheet maximum exposure, guaranty obligation recognized in our consolidated balance sheets and the potential maximum recovery from third parties through available credit enhancements and recourse related to our financial guarantees.

	As of December 31,					
	2019			2018		
	Maximum Exposure	Guaranty Obligation	Maximum Recovery[1]	Maximum Exposure	Guaranty Obligation	Maximum Recovery[1]
	(Dollars in millions)					
Unconsolidated Fannie Mae MBS	**$ 5,801**	**$ 26**	**$ 5,545**	$ 7,278	$ 30	$ 6,811
Other guaranty arrangements[2]	**12,670**	**128**	**2,553**	13,847	130	2,711
Total	**$ 18,471**	**$ 154**	**$ 8,098**	$ 21,125	$ 160	$ 9,522

[1] Recoverability of such credit enhancements and recourse is subject to, among other factors, our mortgage insurers' and financial guarantors' ability to meet their obligations to us. For information on our mortgage insurers, see “Note 13, Concentrations of Credit Risk.”

[2] Primarily consists of credit enhancements and long-term standby commitments.

7. Short-Term and Long-Term Debt

Short-Term Debt

The following table displays our outstanding short-term debt (debt with an original contractual maturity of one year or less) and weighted-average interest rates of this debt.

	As of December 31,			
	2019		2018	
	Outstanding	Weighted- Average Interest Rate[1]	Outstanding	Weighted- Average Interest Rate[1]
	(Dollars in millions)			
Federal funds purchased and securities sold under agreements to repurchase[2]	**$ 478**	**1.67%**	$ —	—%
Short-term debt of Fannie Mae	**$ 26,662**	**1.56%**	$ 24,896	2.29%

(1) Includes the effects of discounts, premiums and other cost basis adjustments.

(2) Represents agreements to repurchase securities for a specified price, with repayment generally occurring on the following day, reported as "Other liabilities" in our consolidated balance sheets.

Intraday Line of Credit

We use a secured intraday funding line of credit provided by a large financial institution. We post collateral which, in some circumstances, the secured party has the right to repledge to third parties. As this line of credit is an uncommitted intraday loan facility, we may be unable to draw on it if and when needed. The line of credit under this facility was $15.0 billion as of December 31, 2019 and 2018.

Long-Term Debt

Long-term debt represents debt with an original contractual maturity of greater than one year. The following table displays our outstanding long-term debt.

	As of December 31,					
	2019			2018		
	Maturities	Outstanding	Weighted- Average Interest Rate[1]	Maturities	Outstanding	Weighted- Average Interest Rate[1]
	(Dollars in millions)					
Senior fixed:						
Benchmark notes and bonds	2020 - 2030	**$ 86,114**	**2.66%**	2019 - 2030	$ 103,206	2.36%
Medium-term notes[2]	2020 - 2026	**32,590**	**1.57**	2019 - 2026	61,455	1.48
Other[3]	2020 - 2038	**5,254**	**5.01**	2019 - 2038	6,683	4.62
Total senior fixed		**123,958**	**2.47**		171,344	2.13
Senior floating:						
Medium-term notes[2]	2020 - 2021	**9,774**	**1.66**	2019 - 2020	4,174	2.36
CAS[4]	2023 - 2031	**21,424**	**5.61**	2023 - 2031	25,641	5.97
Other[5]	2020 - 2037	**398**	**6.27**	2020 - 2037	351	10.19
Total senior floating		**31,596**	**4.40**		30,166	5.52
Subordinated debentures	2019	**—**	**—**	2019	5,617	9.64
Secured borrowings[6]	2021 - 2022	**31**	**2.31**	2021 - 2022	51	1.96
Total long-term debt of Fannie Mae[7]		**155,585**	**2.86**		207,178	2.83
Debt of consolidated trusts	2020 - 2059	**3,285,139**	**2.78**	2019 - 2058	3,159,846	3.03
Total long-term debt		**$ 3,440,724**	**2.78%**		$ 3,367,024	3.02%

(1) Includes the effects of discounts, premiums and other cost basis adjustments.

(2) Includes long-term debt with an original contractual maturity of greater than 1 year and up to 10 years, excluding zero-coupon debt.

(3) Includes other long-term debt with an original contractual maturity of greater than 10 years and foreign exchange bonds.

(4) Credit risk-sharing securities that transfer a portion of the credit risk on specified pools of single-family mortgage loans to the investors in these securities, a portion of which is reported at fair value. Represents CAS issued prior to November 2018. See "Note 2, Consolidations and Transfers of Financial Assets" for more information about our CAS structures issued beginning November 2018.

(5) Consists of structured debt instruments that are reported at fair value.

(6) Represents our remaining liability resulting from the transfer of financial assets from our consolidated balance sheets that did not qualify as a sale under the accounting guidance for the transfer of financial instruments.

(7) Includes unamortized discounts and premiums, other cost basis adjustments and fair value adjustments of $2 million and $413 million as of December 31, 2019 and 2018, respectively.

Our long-term debt includes a variety of debt types. We issue fixed and floating-rate medium-term notes with maturities greater than one year that are issued through dealer banks. We also offer Benchmark Notes® in regularly-scheduled issuances that provide increased efficiency, liquidity and tradability to the market. Additionally, we have issued notes and bonds denominated in several foreign currencies. We effectively convert all foreign currency-denominated transactions into U.S. dollars through the use of foreign currency swaps for the purpose of funding our mortgage assets. Our long-term debt also includes CAS securities, which are credit risk-sharing securities that transfer a portion of the credit risk on specified pools of mortgage loans to investors in these securities.

Our other long-term debt includes callable and non-callable securities, which include all long-term non-Benchmark securities, such as zero-coupon bonds, fixed rate and other long-term securities, and are generally negotiated underwritings with one or more dealers or dealer banks.

Characteristics of Debt

As of December 31, 2019 and 2018, the face amount of our debt securities of Fannie Mae was $182.2 billion and $232.5 billion, respectively. As of December 31, 2019, we had zero-coupon debt with a face amount of $23.1 billion, which had an effective interest rate of 1.63%. As of December 31, 2018, we had zero-coupon debt with a face amount of $23.2 billion, which had an effective interest rate of 4.15%. Our zero-coupon debt outstanding as of December 31, 2018 included subordinated debentures, which matured in October 2019.

We issue callable debt instruments to manage the duration and prepayment risk of expected cash flows of the mortgage assets we own. Our outstanding debt as of December 31, 2019 and 2018 included $38.5 billion and $64.3 billion, respectively, of callable debt that could be redeemed in whole or in part at our option on or after a specified date.

The following table displays the amount of our long-term debt as of December 31, 2019 by year of maturity for each of the years 2020 through 2024 and thereafter. The first column assumes that we pay off this debt at maturity or on the call date if the call has been announced, while the second column assumes that we redeem our callable debt at the next available call date.

	Long-Term Debt by Year of Maturity	Assuming Callable Debt Redeemed at Next Available Call Date
	(Dollars in millions)	
2020	$ 47,427	$ 60,464
2021	29,028	21,037
2022	15,584	14,010
2023	5,301	4,470
2024	14,344	13,320
Thereafter	43,901	42,284
Total long-term debt of Fannie Mae[1]	155,585	155,585
Debt of consolidated trusts[2]	3,285,139	3,285,139
Total long-term debt	$ 3,440,724	$ 3,440,724

(1) Includes unamortized discounts and premiums, other cost basis adjustments and fair value adjustments.

(2) Contractual maturity of debt of consolidated trusts is not a reliable indicator of expected maturity because borrowers of the underlying loans generally have the right to prepay their obligations at any time.

8. Derivative Instruments

Derivative instruments are an integral part of our strategy in managing interest-rate risk. Derivative instruments may be privately-negotiated, bilateral contracts, or they may be listed and traded on an exchange. We refer to our derivative transactions made pursuant to bilateral contracts as our OTC derivative transactions and our derivative transactions accepted for clearing by a derivatives clearing organization as our cleared derivative transactions. We typically do not settle the notional amount of our risk management derivatives; rather, notional amounts provide the basis for calculating actual payments or settlement amounts. The derivative contracts 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 party agrees to exchange payments tied to different interest rates or indices for a specified period of time, generally based on a notional amount of principal. The types of interest-rate swaps we use include pay-fixed swaps, receive-fixed swaps and basis swaps.
- *Interest-rate option contracts.* These contracts primarily include pay-fixed swaptions, receive-fixed swaptions, cancelable swaps and interest-rate caps. A swaption is an option contract that allows us or a counterparty to enter into a pay-fixed or receive-fixed swap at some point in the future.
- *Foreign currency swaps.* These swaps convert debt that we issue in foreign denominated currencies into U.S. dollars. We enter into foreign currency swaps only to the extent that we hold foreign currency debt.
- *Futures.* These are standardized exchange-traded contracts that either obligate a buyer to buy an asset at a predetermined date and price or a seller to sell an asset at a predetermined date and price. The types of futures contracts we enter into include SOFR and U.S. Treasury.

We account for certain forms of credit risk transfer transactions as derivatives. In our credit risk transfer transactions, a portion of the credit risk associated with losses on a reference pool of mortgage loans is transferred to a third party. We enter into derivative transactions that are associated with some of our credit risk transfer transactions, whereby we manage investment risk to guarantee that certain unconsolidated VIEs have sufficient cash flows to pay their contractual obligations.

We enter into forward purchase and sale commitments that lock in the future delivery of mortgage loans and mortgage-related securities at a fixed price or yield. Certain commitments to purchase mortgage loans and purchase or sell mortgage-related securities meet the criteria of a derivative. We typically settle the notional amount of our mortgage commitments that are accounted for as derivatives.

We recognize all derivatives as either assets or liabilities in our consolidated balance sheets at their fair value on a trade-date basis. Fair value amounts, which are (1) netted to the extent a legal right of offset exists and is enforceable by law at the counterparty level and (2) inclusive of the right or obligation associated with the cash collateral posted or received, are recorded in “Other assets” or “Other liabilities” in our consolidated balance sheets. See “Note 15, Fair Value” for additional information on derivatives recorded at fair value. We present cash flows from derivatives as operating activities in our consolidated statements of cash flows.

Notional and Fair Value Position of our Derivatives

The following table displays the notional amount and estimated fair value of our asset and liability derivative instruments.

	As of December 31, 2019				As of December 31, 2018			
	Asset Derivatives		Liability Derivatives		Asset Derivatives		Liability Derivatives	
	Notional Amount	**Estimated Fair Value**	**Notional Amount**	**Estimated Fair Value**	**Notional Amount**	**Estimated Fair Value**	**Notional Amount**	**Estimated Fair Value**
	(Dollars in millions)							
Risk management derivatives:								
Swaps:								
Pay-fixed	**$ 41,052**	**$ —**	**$ 29,178**	**$ (970)**	$ 71,416	$ 438	$ 21,253	$ (740)
Receive-fixed	**73,579**	**816**	**26,382**	**(62)**	88,799	1,113	58,399	(860)
Basis	**273**	**149**	**—**	**—**	250	104	624	—
Foreign currency	**229**	**39**	**232**	**(65)**	221	22	223	(72)
Swaptions:								
Pay-fixed	**4,600**	**18**	**6,375**	**(219)**	10,375	191	1,000	(4)
Receive-fixed	**2,875**	**106**	**4,600**	**(232)**	500	20	7,375	(338)
Futures[1]	**20,507**	**—**	**—**	**—**	16,631	—	—	—
Total gross risk management derivatives	**143,115**	**1,128**	**66,767**	**(1,548)**	188,192	1,888	88,874	(2,014)
Accrued interest receivable (payable)	**—**	**226**	**—**	**(250)**	—	400	—	(419)
Netting adjustment[2]	**—**	**(1,288)**	**—**	**1,694**	—	(2,266)	—	2,315
Total net risk management derivatives	**$ 143,115**	**$ 66**	**$ 66,767**	**$ (104)**	$ 188,192	$ 22	$ 88,874	$ (118)
Mortgage commitment derivatives:								
Mortgage commitments to purchase whole loans	**$ 7,115**	**$ 15**	**$ 1,787**	**$ (1)**	$ 4,370	$ 29	$ 57	$ —
Forward contracts to purchase mortgage-related securities	**55,531**	**137**	**9,560**	**(28)**	40,650	349	1,045	(3)
Forward contracts to sell mortgage-related securities	**9,282**	**13**	**109,066**	**(277)**	292	1	70,593	(645)
Total mortgage commitment derivatives	**71,928**	**165**	**120,413**	**(306)**	45,312	379	71,695	(648)
Credit enhancement derivatives	**28,432**	**40**	**9,486**	**(25)**	33,431	57	919	(11)
Derivatives at fair value	**$ 243,475**	**$ 271**	**$ 196,666**	**$ (435)**	$ 266,935	$ 458	$ 161,488	$ (777)

(1) Futures have no ascribable fair value since the positions are settled daily.

(2) The netting adjustment represents the effect of the legal right to offset under legally enforceable master netting arrangements to settle with the same counterparty on a net basis, including cash collateral posted and received. Cash collateral posted was $1.0 billion and $713 million as of December 31, 2019 and 2018, respectively. Cash collateral received was $635 million and $664 million as of December 31, 2019 and 2018, respectively.

We record all derivative gains and losses, including accrued interest, in “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income. The following table displays, by type of derivative instrument, the fair value gains and losses, net on our derivatives.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(Dollars in millions)	
Risk management derivatives:			
Swaps:			
Pay-fixed	**$ (3,964)**	$ 2,940	$ 1,296
Receive-fixed	**3,685**	(1,834)	(851)
Basis	**46**	(21)	21
Foreign currency	**24**	(51)	49
Swaptions:			
Pay-fixed	**(380)**	100	(161)
Receive-fixed	**117**	(39)	(60)
Futures	**273**	38	22
Net contractual interest expense on interest-rate swaps	**(833)**	(1,061)	(889)
Total risk management derivatives fair value gains (losses), net	**(1,032)**	72	(573)
Mortgage commitment derivatives fair value gains (losses), net	**(1,043)**	324	(603)
Credit enhancement derivatives fair value gains (losses), net	**(35)**	26	(9)
Total derivatives fair value gains (losses), net	**$ (2,110)**	$ 422	$ (1,185)

Derivative Counterparty Credit Exposure

Our derivative counterparty credit exposure relates principally to interest-rate derivative contracts. We are exposed to the risk that a counterparty in a derivative transaction will default on payments due to us, which may require us to seek a replacement derivative from a different counterparty. This replacement may be at a higher cost, or we may be unable to find a suitable replacement. We manage our derivative counterparty credit exposure relating to our risk management derivative transactions mainly through enforceable master netting arrangements, which allow us to net derivative assets and liabilities with the same counterparty or clearing organization and clearing member. For our OTC derivative transactions, we require counterparties to post collateral, which may include cash, U.S. Treasury securities, agency debt and agency mortgage-related securities.

See “Note 14, Netting Arrangements” for information on our rights to offset assets and liabilities as of December 31, 2019 and 2018.

9. Income Taxes

Provision for Federal Income Taxes

We are subject to federal income tax, but we are exempt from state and local income taxes. The following table displays the components of our provision for federal income taxes.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
		(Dollars in millions)	
Current income tax benefit (provision)	**$ (2,089)**	$ 114	$ 600
Deferred income tax provision[1]	**(1,328)**	(4,254)	(16,584)
Provision for federal income taxes	**$ (3,417)**	$ (4,140)	$ (15,984)

[1] Amount excludes the current income tax effect of items recognized directly in “Fannie Mae stockholders’ equity (deficit).”

The following table displays the difference between the statutory corporate tax rate and our effective tax rate.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
Statutory corporate tax rate	**21.0** %	21.0 %	35.0 %
Equity investments in affordable housing projects	**(0.2)**	(0.6)	(1.4)
Effect of corporate tax rate change	**—**	—	53.6
Change in unrecognized tax benefits	**(1.2)**	—	—
Other	**(0.2)**	0.2	(0.6)
Effective tax rate	**19.4** %	20.6 %	86.6 %

Our effective tax rate is the provision for federal income taxes expressed as a percentage of income or loss before federal income taxes. Our effective tax rates for the years 2019, 2018, and 2017 were impacted by the benefits of our investments in housing projects eligible for low-income housing tax credits. Our effective tax rate for 2019 was also impacted by the favorable resolution of our uncertain tax position which reduced our provision for federal income taxes by $205 million. The effective tax rate in 2017 was impacted by the re-measurement of our net deferred tax assets in the fourth quarter of 2017 as a result of the federal statutory corporate tax rate change from 35% to 21%.

Deferred Tax Assets and Liabilities

We evaluate our deferred tax assets for recoverability using a consistent approach which considers the relative impact of negative and positive evidence, including our historical profitability and projections of future taxable income.

As of December 31, 2019, we continued to conclude that the positive evidence in favor of the recoverability of our deferred tax assets outweighed the negative evidence and that it is more likely than not that our deferred tax assets will be realized. Our framework for assessing the recoverability of deferred tax assets requires us to weigh all available evidence, to the extent it exists, including:

- the sustainability of recent profitability required to realize the deferred tax assets;
- the cumulative net income or losses in our consolidated statements of operations and comprehensive income in recent years;
- unsettled circumstances that, if unfavorably resolved, would adversely affect future operations and profit levels on a continuing basis in future years; and
- the funding available to us under the senior preferred stock purchase agreement.

The following table displays our deferred tax assets and deferred tax liabilities.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Deferred tax assets:		
Mortgage and mortgage-related assets	**$ 9,290**	$ 9,285
Allowance for loan losses and basis in acquired property, net	**1,240**	2,065
Debt and derivative instruments	**627**	687
Partnership credits	**—**	161
Partnership and other equity investments	**152**	223
Interest-only securities	**788**	738
Other, net	**—**	102
Total deferred tax assets	**12,097**	13,261
Deferred tax liabilities:		
Unrealized gains on AFS securities, net	**26**	73
Other, net	**161**	—
Total deferred tax liabilities	**187**	73
Deferred tax assets, net	**$ 11,910**	$ 13,188

Unrecognized Tax Benefits

The following table displays the changes in our unrecognized tax benefits.

	For the Year Ended December 31,		
	2019	**2018**	**2017**
	(Dollars in millions)		
Unrecognized tax benefits as of January 1	**$ 416**	$ 514	$ —
Gross increases - tax positions in current year	**—**	—	514
Gross decreases - tax positions in current year	**—**	(98)	—
Gross decreases - tax positions in prior years	**(416)**	—	—
Unrecognized tax benefits as of December 31[1]	**$ —**	$ 416	$ 514

[1] Amount excludes tax credits of $151 million, and $220 million as of 2018, and 2017, respectively. We had no unrecognized tax benefits as of December 31, 2019.

Our tax years 2007 through 2018 remain open to assessment by the IRS.

10. Segment Reporting

We have two reportable business segments: Single-Family and Multifamily. The chief operating decision maker allocates resources and assesses performance based on these two business segments. Results of our two business segments are intended to reflect each segment as if it were a stand-alone business. The sum of the results for our two business segments equals our consolidated results of operations.

The section below provides a discussion of our business segments.

Single-Family Business Segment

- Works with our lender customers to acquire and securitize single-family mortgage loans delivered to us by lenders into Fannie Mae MBS.
- Issues structured Fannie Mae MBS backed by single-family mortgage assets and provides other services to our lender customers.
- Prices and manages the credit risk on loans in our single-family guaranty book of business. Also enters into transactions that transfer a portion of the credit risk on some of the loans in our single-family guaranty book of business.
- 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.

Multifamily Business Segment

- Works with our lender customers to acquire and securitize multifamily mortgage loans delivered to us by lenders into Fannie Mae MBS.
- Issues structured multifamily Fannie Mae MBS through our Fannie Mae Guaranteed Multifamily Structures (“Fannie Mae GeMS”) program and provides other services to our lender customers.
- 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 credit quality of the book, prevent foreclosure, reduce costs of defaulted multifamily loans, manage our REO inventory, and pursue contractual remedies from lenders, servicers and providers of credit enhancement.

Segment Allocations and Results

The majority of our assets, revenues and expenses are directly associated with each respective business segment and are included in determining its asset balance and operating results. Those assets, revenues and expenses that are not directly attributable to a particular business segment are allocated based on the size of each segment's guaranty book of business. The substantial majority of our gains and losses associated with our risk management derivatives are allocated to our Single-Family business segment.

The following table displays total assets by segment.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Single-Family	**$ 3,149,212**	$ 3,099,588
Multifamily	**354,107**	318,730
Total assets	**$ 3,503,319**	$ 3,418,318

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

The following tables display our segment results.

	For the Year Ended December 31, 2019		
	Single-Family	**Multifamily**	**Total**
	(Dollars in millions)		
Net interest income[1]	$ 18,013	$ 2,949	$ 20,962
Fee and other income[2]	453	723	1,176
Net revenues	18,466	3,672	22,138
Investment gains, net[3]	1,589	181	1,770
Fair value gains (losses), net[4]	(2,216)	2	(2,214)
Administrative expenses	(2,565)	(458)	(3,023)
Credit-related income (expense):[5]			
Benefit (provision) for credit losses	4,038	(27)	4,011
Foreclosed property income (expense)	(523)	8	(515)
Total credit-related income (expense)	3,515	(19)	3,496
TCCA fees[6]	(2,432)	—	(2,432)
Other expenses, net	(1,661)	(497)	(2,158)
Income before federal income taxes	14,696	2,881	17,577
Provision for federal income taxes	(2,859)	(558)	(3,417)
Net income	$ 11,837	$ 2,323	$ 14,160

	For the Year Ended December 31, 2018		
	Single-Family	Multifamily	Total
	(Dollars in millions)		
Net interest income[1]	$ 18,162	$ 2,789	$ 20,951
Fee and other income[2]	450	529	979
Net revenues	18,612	3,318	21,930
Investment gains, net[3]	850	102	952
Fair value gains (losses), net[4]	1,210	(89)	1,121
Administrative expenses	(2,631)	(428)	(3,059)
Credit-related income (expense):[5]			
Benefit (provision) for credit losses	3,313	(4)	3,309
Foreclosed property expense	(604)	(13)	(617)
Total credit-related income (expense)	2,709	(17)	2,692
TCCA fees[6]	(2,284)	—	(2,284)
Other expenses, net	(1,012)	(241)	(1,253)
Income before federal income taxes	17,454	2,645	20,099
Provision for federal income taxes	(3,708)	(432)	(4,140)
Net income	$ 13,746	$ 2,213	$ 15,959

	For the Year Ended December 31, 2017		
	Single-Family	Multifamily	Total
	(Dollars in millions)		
Net interest income[1]	$ 18,212	$ 2,521	$ 20,733
Fee and other income[2]	1,378	849	2,227
Net revenues	19,590	3,370	22,960
Investment gains, net[3]	1,352	170	1,522
Fair value losses, net[4]	(1,188)	(23)	(1,211)
Administrative expenses	(2,391)	(346)	(2,737)
Credit-related income (expense):[5]			
Benefit (provision) for credit losses	2,090	(49)	2,041
Foreclosed property income (expense)	(540)	19	(521)
Total credit-related income (expense)	1,550	(30)	1,520
TCCA fees[6]	(2,096)	—	(2,096)
Other expenses, net	(1,004)	(507)	(1,511)
Income before federal income taxes	15,813	2,634	18,447
Provision for federal income taxes	(14,301)	(1,683)	(15,984)
Net income	$ 1,512	$ 951	$ 2,463

(1) Net interest income primarily consists of guaranty fees received as compensation for assuming and managing the credit risk on loans underlying Fannie Mae MBS held by third parties for the respective business segment, and the difference between the interest income earned on the respective business segment’s mortgage assets in our retained mortgage portfolio and the interest expense associated with the debt funding those assets. Revenues from single-family guaranty fees include revenues generated by the 10 basis point increase in guaranty fees pursuant to the TCCA, the incremental revenue for which is remitted to Treasury and not retained by us.

(2) Single-family fee and other income primarily consists of compensation for engaging in structured transactions and providing other lender services, and income resulting from settlement agreements resolving certain claims relating to private-label securities we purchased or that we have guaranteed. Multifamily fee and other income consists of fees associated with Multifamily business activities, including yield maintenance income.

(3) Investment gains and losses primarily consist of gains and losses on the sale of mortgage assets for the respective business segment.

(4) Single-family fair value gains and losses primarily consist of fair value gains and losses on risk management and mortgage commitment derivatives, trading securities and other financial instruments associated with our single-family guaranty book of business. Multifamily fair value gains and losses primarily consist of fair value gains and losses on MBS commitment derivatives, trading securities and other financial instruments associated with our multifamily guaranty book of business.

(5) Credit-related income or expense is based on the guaranty book of business of the respective business segment and consists of the applicable segment's benefit or provision for credit losses and foreclosed property income or expense on loans underlying the segment's guaranty book of business.

(6) Consists of the portion of our single-family guaranty fees that is remitted to Treasury pursuant to the TCCA.

11. Equity

Common Stock

Shares of common stock outstanding, net of shares held as treasury stock, totaled 1.2 billion as of December 31, 2019 and 2018.

During conservatorship, the rights and powers of shareholders are suspended. Accordingly, our common shareholders have no ability to elect directors or to vote on other matters during the conservatorship unless FHFA elects to delegate this authority to them. The senior preferred stock purchase agreement with Treasury prohibits the payment of dividends on common stock without the prior written consent of Treasury. The conservator also has eliminated common stock dividends. In addition, we issued a warrant to Treasury that provides Treasury with the right to purchase for a nominal price shares of our common stock equal to 79.9% of the total number of shares of common stock outstanding on a fully diluted basis on the date of exercise, which would substantially dilute the ownership in Fannie Mae of our common stockholders at the time of exercise. Refer to the "Senior Preferred Stock and Common Stock Warrant" section of this note for more information.

Preferred Stock

The following table displays our senior preferred stock and preferred stock outstanding.

		Issued and Outstanding as of December 31,						
		2019		2018				
Title	Issue Date	Shares	Amount	Shares	Amount	Stated Value per Share	Annual Dividend Rate as of December 31, 2019	Redeemable on or After
		(Dollars and shares in millions, except per share amounts)						
Senior Preferred Stock								
Series 2008-2	September 8, 2008	**1**	**$ 120,836**	1	$ 120,836	$ 120,836 (1)	N/A (2)	N/A (3)
Preferred Stock								
Series D	September 30, 1998	**3**	**$ 150**	3	$ 150	$ 50	5.250 %	September 30, 1999
Series E	April 15, 1999	**3**	**150**	3	150	50	5.100	April 15, 2004
Series F	March 20, 2000	**14**	**690**	14	690	50	2.146 (4)	March 31, 2002 (5)
Series G	August 8, 2000	**6**	**288**	6	288	50	2.624 (6)	September 30, 2002 (5)
Series H	April 6, 2001	**8**	**400**	8	400	50	5.810	April 6, 2006
Series I	October 28, 2002	**6**	**300**	6	300	50	5.375	October 28, 2007
Series L	April 29, 2003	**7**	**345**	7	345	50	5.125	April 29, 2008
Series M	June 10, 2003	**9**	**460**	9	460	50	4.750	June 10, 2008
Series N	September 25, 2003	**5**	**225**	5	225	50	5.500	September 25, 2008
Series O	December 30, 2004	**50**	**2,500**	50	2,500	50	7.000 (7)	December 31, 2007
Convertible Series 2004-I(8)	December 30, 2004	**—**	**2,492**	—	2,492	100,000	5.375	January 5, 2008
Series P	September 28, 2007	**40**	**1,000**	40	1,000	25	4.500 (9)	September 30, 2012
Series Q	October 4, 2007	**15**	**375**	15	375	25	6.750	September 30, 2010
Series R(10)	November 21, 2007	**21**	**530**	21	530	25	7.625	November 21, 2012
Series S	December 11, 2007	**280**	**7,000**	280	7,000	25	7.750 (11)	December 31, 2010 (12)
Series T(13)	May 19, 2008	**89**	**2,225**	89	2,225	25	8.250	May 20, 2013
Total		**556**	**$ 19,130**	556	$ 19,130			

(1) Initial stated value per share was $1,000. Based on our draws of funds under the senior preferred stock purchase agreement with Treasury, the stated value per share on December 31, 2019 was $120,836.

(2) Beginning in 2013, dividends on the senior preferred stock are calculated based on our net worth as of the end of the immediately preceding fiscal quarter less an applicable capital reserve amount. The applicable capital reserve amount was $3 billion for 2018 and the first and second quarters of 2019. The capital reserve amount increased to $25 billion effective for dividend periods beginning July 1, 2019, pursuant to the September 2019 letter agreement with Treasury.

(3) Any liquidation preference of our senior preferred stock in excess of $1.0 billion may be repaid through an issuance of common or preferred stock, which would require the consent of the conservator and Treasury. The initial $1.0 billion liquidation preference may be repaid only in conjunction with termination of Treasury's funding commitment under the senior preferred stock purchase agreement.

(4) Rate effective March 31, 2018. Variable dividend rate resets every two years at a per annum rate equal to the two-year Constant Maturity U.S. Treasury Rate ("CMT") minus 0.16% with a cap of 11% per year.

(5) Represents initial call date. Redeemable every two years thereafter.

(6) Rate effective September 30, 2018. Variable dividend rate resets every two years at a per annum rate equal to the two-year CMT rate minus 0.18% with a cap of 11% per year.

(7) Rate effective December 31, 2019. Variable dividend rate resets quarterly thereafter at a per annum rate equal to the greater of 7.00% or 10-year CMT rate plus 2.375%.

(8) Issued and outstanding shares were 24,922 as of December 31, 2019 and 2018.

(9) Rate effective December 31, 2019. Variable dividend rate resets quarterly thereafter at a per annum rate equal to the greater of 4.50% or 3-Month LIBOR plus 0.75%.

(10) On November 21, 2007, we issued 20 million shares of preferred stock in the amount of $500 million. Subsequent to the initial issuance, we issued an additional 1.2 million shares in the amount of $30 million on December 14, 2007 under the same terms as the initial issuance.

(11) Rate effective December 31, 2019. Variable dividend rate resets quarterly thereafter at a per annum rate equal to the greater of 7.75% or 3-Month LIBOR plus 4.23%.

(12) Represents initial call date. Redeemable every five years thereafter.

(13) On May 19, 2008, we issued 80 million shares of preferred stock in the amount of $2.0 billion. Subsequent to the initial issuance, we issued an additional 8 million shares in the amount of $200 million on May 22, 2008 and 1 million shares in the amount of $25 million on June 4, 2008 under the same terms as the initial issuance.

As described under "Senior Preferred Stock and Common Stock Warrant," we issued senior preferred stock that ranks senior to all other series of preferred stock as to both dividends and distributions upon dissolution, liquidation or winding down of the company. The senior preferred stock purchase agreement with Treasury also prohibits the payment of dividends on preferred stock (other than the senior preferred stock) without the prior written consent of Treasury. The conservator also has eliminated preferred stock dividends, other than dividends on the senior preferred stock.

Each series of our preferred stock has no par value, is non-participating, is non-voting and has a liquidation preference equal to the stated value per share. None of our preferred stock is convertible into or exchangeable for any of our other stock or obligations, with the exception of the Convertible Series 2004-1.

Shares of the Convertible Series 2004-1 Preferred Stock are convertible at any time, at the option of the holders, into shares of Fannie Mae common stock at a conversion price of $94.31 per share of common stock (equivalent to a conversion rate of 1,060.3329 shares of common stock for each share of Series 2004-1 Preferred Stock). The conversion price is adjustable, as necessary, to maintain the stated conversion rate into common stock. Events which may trigger an adjustment to the conversion price include certain changes in our common stock dividend rate, subdivisions of our outstanding common stock into a greater number of shares, combinations of our outstanding common stock into a smaller number of shares and issuances of any shares by reclassification of our common stock. No such events have occurred.

Holders of preferred stock (other than the senior preferred stock) are entitled to receive non-cumulative, quarterly dividends when, and if, declared by our Board of Directors, but have no right to require redemption of any shares of preferred stock. Payment of dividends on preferred stock (other than the senior preferred stock) is not mandatory, but has priority over payment of dividends on common stock, which are also declared by the Board of Directors. If dividends on the preferred stock are not paid or set aside for payment for a given dividend period, dividends may not be paid on our common stock for that period. There were no dividends declared or paid on preferred stock (other than the senior preferred stock) for the years ended December 31, 2019 or 2018.

After a specified period, we have the option to redeem preferred stock (other than the senior preferred stock) at its redemption price plus the dividend (whether or not declared) for the then-current period accrued to, but excluding, the date of redemption. The redemption price is equal to the stated value for all issues of preferred stock except Series O, which has a redemption price of $50 to $52.50 depending on the year of redemption and Convertible Series 2004-1, which has a redemption price of $105,000 per share.

Our preferred stock is traded in the over-the-counter market.

Senior Preferred Stock and Common Stock Warrant

On September 8, 2008, we issued to Treasury one million shares of Variable Liquidation Preference Senior Preferred Stock, Series 2008-2, with an aggregate stated value and initial liquidation preference of $1.0 billion. On September 7, 2008, we

issued a warrant to purchase common stock to Treasury. The warrant gives Treasury the right to purchase shares of our common stock equal to 79.9% of the total number of shares of common stock outstanding on a fully diluted basis on the date of exercise. The senior preferred stock and the warrant were issued to Treasury as an initial commitment fee in consideration of the commitment from Treasury to provide funds to us under the terms and conditions set forth in the senior preferred stock purchase agreement. We did not receive any cash proceeds as a result of issuing these shares or the warrant. We have assigned a value of $4.5 billion to Treasury's commitment, which has been recorded as a reduction to additional paid-in-capital and was partially offset by the aggregate fair value of the warrant. There was no impact to the total balance of stockholders' equity as a result of the issuance.

Variable Liquidation Preference Senior Preferred Stock, Series 2008-2

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 governing 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; and
- the September 2019 letter agreement provides that, beginning on September 30, 2019, and at the end of each fiscal quarter thereafter, the liquidation preference shall be increased by an amount equal to the increase in our net worth, if any, during the immediately prior fiscal quarter, until such time as the liquidation preference has increased by $22 billion pursuant to this provision.

Accordingly, the aggregate liquidation preference of the senior preferred stock was $131.2 billion as of December 31, 2019 and will increase to $135.4 billion as of March 31, 2020 due to the increase in our net worth during the fourth quarter of 2019.

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. Dividends declared and paid on the senior preferred stock were $5.6 billion, $9.4 billion, and $12.0 billion for the years ended December 31, 2019, 2018 and 2017, respectively. 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. Dividend payments we make to Treasury do not restore or increase the amount of funding available to us under the agreement.

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

- *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 with respect to 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 and September 2019 letter agreements.
- *December 2017 Letter Agreement Amendment.* As amended in December 2017, the applicable capital reserve amount was increased to $3 billion. The December 2017 letter agreement also reduced by $2.4 billion the dividend amount otherwise payable for the fourth quarter of 2017.
- *September 2019 Amendment.* As amended in September 2019, the applicable capital reserve amount was increased to $25 billion effective for dividend periods beginning July 1, 2019. 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.

As a result of these amended dividend provisions, for each quarterly period beginning with the third quarter of 2019, 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 $25 billion. If our net worth does not exceed the applicable capital reserve

amount of $25 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 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:

- 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
- 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.

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:

- accumulated and unpaid dividends previously added to the liquidation preference and not previously paid down; and
- 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 (which requires Treasury's approval), we are required to use the net proceeds of the issuance 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

The warrant gives Treasury the right to purchase shares of our common stock equal to 79.9% of the total number of shares of our common stock outstanding on a fully diluted basis on the date the warrant is exercised. The warrant may be exercised in whole or in part at any time on or before September 7, 2028, by delivery to Fannie Mae of:

- a notice of exercise;
- payment of the exercise price of $0.00001 per share; and
- the warrant.

If the market price of one share of common stock is greater than the exercise price, in lieu of exercising the warrant by payment of the exercise price, Treasury may elect to receive shares equal to the value of the warrant (or portion thereof being canceled) pursuant to the formula specified in the warrant. Upon exercise of the warrant, Treasury may assign the right to receive the shares of common stock issuable upon exercise to any other person. If the warrant is exercised, the stated value of the common stock issued will be reclassified as "Common stock" in our consolidated balance sheets. As of February 13, 2020, Treasury has not exercised the warrant.

Senior Preferred Stock Purchase Agreement with Treasury

Funding Commitment

Under the senior preferred stock purchase agreement, Treasury made a commitment to provide funding, under certain conditions, to eliminate deficits in our net worth. As of December 31, 2019, Treasury has provided us with a total of $119.8 billion under its senior preferred stock purchase agreement funding commitment, and the amount of funding remaining available to us under the agreement was $113.9 billion.

While we had positive net worth as of December 31, 2019, in some future periods we could have net worth deficit and, if so, will be required to obtain additional funding from Treasury pursuant to the senior preferred stock purchase agreement to avoid being placed into receivership. 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. The deficiency amount may be increased above the otherwise applicable amount upon our mutual written agreement with Treasury. In addition, if the Director of FHFA determines that the Director will be mandated by law to appoint a receiver for us unless our capital is increased by receiving funds under the commitment in an amount up to the deficiency amount (subject to the maximum amount that may be funded under the agreement), then FHFA, in its capacity as our conservator, may request that Treasury provide funds to us in such amount. The senior preferred stock

purchase agreement also provides that, if we have a deficiency amount as of the date of completion of the liquidation of our assets, we may request funds from Treasury in an amount up to the deficiency amount (subject to the maximum amount that may be funded under the agreement). Any amounts that we draw under the senior preferred stock purchase agreement will be added to the liquidation preference of the senior preferred stock. No additional shares of senior preferred stock are required to be issued under the senior preferred stock purchase agreement.

Commitment Fee

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

Covenants

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:

- declaring or paying dividends or making other distributions on or redeeming, purchasing, retiring or otherwise acquiring our equity securities (other than the senior preferred stock or warrant);
- selling or issuing equity securities (except in limited instances);
- seeking or permitting the termination of our conservatorship (other than in connection with a receivership);
- 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;
- incurring indebtedness that would result in our aggregate indebtedness exceeding $300 billion;
- issuing subordinated debt;
- entering into a corporate reorganization, recapitalization, merger, acquisition or similar event; and
- engaging in transactions with affiliates other than on arm’s-length terms or in the ordinary course of business.

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 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 billion as of December 31, 2018. In addition, FHFA has directed that we further cap our mortgage assets at $225 billion. For purposes of calculating our limit for 2019 and prior periods, 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, 2019 were $153.6 billion. For periods after 2019, at FHFA’s direction our mortgage asset calculation will also include 10% of the notional value of interest-only securities we hold.
- *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 2019 and each year thereafter is $300 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, 2019 was $182.2 billion.

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 2019.

Termination Provisions

The senior preferred stock purchase agreement provides that Treasury’s funding commitment will terminate under any of the following circumstances:

- the completion of our liquidation and fulfillment of Treasury’s obligations under its funding commitment at that time,

- the payment in full of, or reasonable provision for, all of our liabilities (whether or not contingent, including mortgage guaranty obligations), or
- the funding by Treasury of the maximum amount under the agreement.

In addition, Treasury may terminate its funding commitment and declare the senior preferred stock purchase agreement null and void if a court vacates, modifies, amends, conditions, enjoins, stays or otherwise affects the appointment of the conservator or otherwise curtails the conservator's powers. Treasury may not terminate its funding commitment 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.

Waivers and Amendments

The senior preferred stock purchase agreement provides that most provisions of the agreement may be waived or amended by mutual written agreement of the parties. No waiver or amendment of the agreement, however, may 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.

Third-party Enforcement Rights

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

12. Regulatory Capital Requirements

FHFA suspended our capital classifications during conservatorship. We submit capital reports to FHFA and FHFA monitors our capital levels. Our regulatory capital classification measures are determined based on guidance from FHFA, in which FHFA (1) directed us, for loans backing Fannie Mae MBS held by third parties, to continue reporting our minimum capital requirements based on 0.45% of the unpaid principal balance and critical capital based on 0.25% of the unpaid principal balance, regardless of whether these loans have been consolidated pursuant to accounting rules, and (2) issued a regulatory interpretation stating that our minimum capital requirements are not automatically affected by the consolidation accounting guidance. Additionally, our regulatory capital classification measures exclude the funds provided to us by Treasury pursuant to the senior preferred stock purchase agreement, as the senior preferred stock does not qualify as core capital due to its cumulative dividend provisions.

FHFA has directed us, during the time we are under conservatorship, to focus on managing to a positive net worth, and we are working on building our capital reserve up to the $25 billion we are permitted to retain. We had a positive net worth of $14.6 billion and $6.2 billion as of December 31, 2019 and 2018, respectively.

The following table displays our regulatory capital classification measures.

	As of December 31,	
	2019	**2018**
	(Dollars in millions)	
Core capital[1]	**$ (106,360)**	$ (114,919)
Statutory minimum capital requirement[2]	**22,392**	22,216
Deficit of core capital over statutory minimum capital requirement	**$ (128,752)**	$ (137,135)

[1] The sum of (a) the stated value of our outstanding common stock (common stock less treasury stock); (b) the stated value of our outstanding non-cumulative perpetual preferred stock; (c) our paid-in capital; and (d) our retained earnings (accumulated deficit). Core capital does not include: (a) accumulated other comprehensive income or (b) senior preferred stock.

[2] Generally, the sum of (a) 2.50% of on-balance sheet assets, except those underlying Fannie Mae MBS held by third parties; (b) 0.45% of the unpaid principal balance of outstanding Fannie Mae MBS held by third parties; and (c) up to 0.45% of other off-balance sheet obligations, which may be adjusted by the Director of FHFA under certain circumstances.

Our critical capital requirement is generally equal to the sum of: (1) 1.25% of on-balance sheet assets, except those underlying Fannie Mae MBS held by third parties; (2) 0.25% of the unpaid principal balance of outstanding Fannie Mae MBS held by third parties; and (3) 0.25% of other off-balance sheet obligations, which may be adjusted by the Director of FHFA under certain circumstances.

As of December 31, 2019 and 2018, we had a minimum capital deficiency of $128.8 billion and $137.1 billion, respectively. See “Note 1, Summary of Significant Accounting Policies” and “Note 11, Equity” for more information on capital and the terms of our senior preferred stock purchase agreement with Treasury and the senior preferred stock we issued to Treasury. Set forth below are additional restrictions related to our capital requirements.

Restrictions on Capital Distributions and Dividends

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

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

Restrictions Under Senior Preferred Stock Purchase Agreement and Senior Preferred Stock. The senior preferred stock purchase agreement prohibits us from declaring or paying any dividends on Fannie Mae equity securities (other than the senior preferred stock) without the prior written consent of Treasury. In addition, 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 a $25 billion capital reserve amount. As a result, our net income is not available to common stockholders. For more information on the terms of the senior preferred stock purchase agreement and senior preferred stock, see “Note 1, Summary of Significant Accounting Policies” and “Note 11, Equity.”

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

13. Concentrations of Credit Risk

Concentrations of credit risk arise when a number of customers and counterparties engage in similar activities or have similar economic characteristics that make them susceptible to similar changes in industry conditions, which could affect their ability to meet their contractual obligations. Based on our assessment of business conditions that could impact our financial results, we have determined that concentrations of credit risk exist among:

- single-family and multifamily borrowers (including geographic concentrations and loans with certain higher-risk characteristics);
- mortgage insurers;
- mortgage sellers and servicers;
- multifamily lenders with risk sharing; and
- derivative counterparties and parties associated with our off-balance sheet transactions.

Concentrations for each of these groups are discussed below.

Single-Family Loan Borrowers

Regional economic conditions may affect a borrower’s ability to repay his or her mortgage loan and the property value underlying the loan. Geographic concentrations increase the exposure of our portfolio to changes in credit risk. Single-family borrowers are primarily affected by home prices and interest rates.

To manage credit risk and comply with legal requirements, we typically require primary mortgage insurance or other credit enhancements if the current LTV ratio (*i.e.*, the ratio of the unpaid principal balance of a loan to the current value of the property that serves as collateral) of a single-family conventional mortgage loan is greater than 80% when the loan is delivered to us.

Multifamily Loan Borrowers

Numerous factors affect a multifamily borrower’s ability to repay the loan and the value of the property underlying the loan. Multifamily loans are generally non-recourse to the borrower. The most significant factors affecting credit risk are rental income, capitalization rates for the mortgaged property, and general economic conditions. The average unpaid principal

balance for multifamily loans is significantly larger than for single-family borrowers and, therefore, individual defaults for multifamily borrowers can result in more significant losses. We continually monitor the performance and risk characteristics of our multifamily loans, underlying properties and borrowers on an ongoing basis.

As part of our multifamily risk management activities, we perform detailed loan reviews that evaluate property performance, borrower and geographic concentrations, lender qualifications, counterparty risk and contract compliance. We generally require mortgage servicers to obtain and submit periodic property operating information and condition reviews, allowing us to monitor the performance of individual loans. We use this information to evaluate the credit quality of our portfolio, identify potential problem loans and initiate appropriate loss mitigation activities.

Geographic Concentration

The following table displays the regional geographic concentration of single-family and multifamily loans in our guaranty book of business, measured by the unpaid principal balance of the loans.

	Geographic Concentration[1]			
	Percentage of Single-Family Conventional Guaranty Book of Business		Percentage of Multifamily Guaranty Book of Business	
	As of December 31,		As of December 31,	
	2019	2018	**2019**	2018
Midwest	**15 %**	15 %	**10 %**	10 %
Northeast	**17**	17	**15**	14
Southeast	**22**	22	**27**	26
Southwest	**18**	18	**23**	24
West	**28**	28	**25**	26
Total	**100 %**	100 %	**100 %**	100 %

[1] 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.

Risk Characteristics of our Guaranty Book of Business

One of the measures by which we gauge our performance risk is the delinquency status of the mortgage loans in our guaranty book of business.

For single-family and multifamily loans, we use this information, in conjunction with housing market and economic conditions, to structure our pricing and our eligibility and underwriting criteria to reflect the current risk of loans with higher-risk characteristics, and in some cases we decide to significantly reduce our participation in riskier loan product categories. Management also uses this data together with other credit risk measures to identify key trends that guide the development of our loss mitigation strategies.

Single-Family Credit Risk Characteristics

For single-family loans, management monitors the serious delinquency rate, which is the percentage of single-family loans, based on the number of loans that are 90 days or more past due or in the foreclosure process, and loans that have higher risk characteristics, such as high mark-to-market LTV ratios.

The following tables display the delinquency status and serious delinquency rates for specified loan categories of our single-family conventional guaranty book of business.

	As of December 31,					
	2019			2018		
	30 Days Delinquent	60 Days Delinquent	Seriously Delinquent[1]	30 Days Delinquent	60 Days Delinquent	Seriously Delinquent[1]
Percentage of single-family conventional guaranty book of business based on UPB	**1.07%**	**0.29%**	**0.59%**	1.17%	0.32%	0.69%
Percentage of single-family conventional loans based on loan count	**1.27**	**0.35**	**0.66**	1.37	0.38	0.76

	As of December 31,			
	2019		2018	
	Percentage of Single-Family Conventional Guaranty Book of Business Based on UPB	Seriously Delinquent Rate[1]	Percentage of Single-Family Conventional Guaranty Book of Business Based on UPB	Seriously Delinquent Rate[1]
Estimated mark-to-market LTV ratio:				
Greater than 100%	*	**10.14%**	*	9.85%
Geographical distribution:				
California	**19**	**0.32**	19	0.34
Florida	**6**	**0.84**	6	1.16
Illinois	**4**	**0.91**	4	0.98
New Jersey	**3**	**1.13**	4	1.38
New York	**5**	**1.18**	5	1.40
All other states	**63**	**0.64**	62	0.73
Product distribution:				
Alt-A	**2**	**2.95**	2	3.35
Vintages:				
2004 and prior	**2**	**2.48**	3	2.69
2005-2008	**4**	**4.11**	5	4.61
2009-2019	**94**	**0.35**	92	0.34

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

(1) Consists of single-family conventional loans that were 90 days or more past due or in the foreclosure process as of December 31, 2019 and 2018.

Multifamily Credit Risk Characteristics

For multifamily loans, management monitors the serious delinquency rate, which is the percentage of multifamily loans, based on unpaid principal balance, that are 60 days or more past due, and other loans that have higher risk characteristics, to determine our overall credit quality indicator. Higher risk characteristics include, but are not limited to, current DSCR below 1.0 and original LTV ratios greater than 80%. We stratify multifamily loans into different internal risk categories based on the credit risk inherent in each individual loan.

The following tables display the delinquency status and serious delinquency rates for specified loan categories of our multifamily guaranty book of business.

	As of December 31,			
	2019[1]		2018[1]	
	30 Days Delinquent	Seriously Delinquent[2]	30 Days Delinquent	Seriously Delinquent[2]
Percentage of multifamily guaranty book of business	**0.02%**	**0.04%**	0.02%	0.06%

	As of December 31,			
	2019		2018	
	Percentage of Multifamily Guaranty Book of Business[1]	Percentage Seriously Delinquent[2][3]	Percentage of Multifamily Guaranty Book of Business[1]	Percentage Seriously Delinquent[2][3]
Original LTV ratio:				
Greater than 80%	**1%**	**—%**	1%	—%
Less than or equal to 80%	**99**	**0.04**	99	0.06
Current DSCR below 1.0[4]	**2**	**0.48**	2	1.38

(1) Calculated based on the aggregate unpaid principal balance of multifamily loans for each category divided by the aggregate unpaid principal balance of loans in our multifamily guaranty book of business.

(2) Consists of multifamily loans that were 60 days or more past due as of the dates indicated.

(3) Calculated based on the unpaid principal balance of multifamily loans that were seriously delinquent divided by the aggregate unpaid principal balance of multifamily loans for each category included in our multifamily guaranty book of business.

(4) Our estimates of current DSCRs are based on the latest available income information for these properties. Although we use the most recently available results from our multifamily borrowers, there is a lag in reporting, which typically can range from 3 to 6 months but in some cases may be longer. For certain properties, we do not receive updated financial information.

Other Concentrations

Mortgage Insurers. Mortgage insurance “risk in force” refers to our 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.

The following table displays our total mortgage insurance risk in force by primary and pool insurance, as well as the total risk-in-force mortgage insurance coverage as a percentage of the single-family conventional guaranty book of business.

	As of December 31,			
	2019		2018	
	Risk in Force	Percentage of Single-Family Conventional Guaranty Book of Business	Risk in Force	Percentage of Single-Family Conventional Guaranty Book of Business
	(Dollars in millions)			
Mortgage insurance risk in force:				
Primary mortgage insurance	**$ 162,855**		$ 152,379	
Pool mortgage insurance	**339**		409	
Total mortgage insurance risk in force	**$ 163,194**	**6%**	$ 152,788	5%

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. Specifically, a property damaged by a flood that was outside a Federal Emergency Management Agency (“FEMA”)-identified Special 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.

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

	Percentage of Risk in Force Coverage by Mortgage Insurer	
	As of December 31,	
	2019	2018
Counterparty:[1]		
Arch Capital Group Ltd.	**23%**	25%
Radian Guaranty, Inc.	**20**	21
Mortgage Guaranty Insurance Corp.	**18**	18
Genworth Mortgage Insurance Corp.[2]	**15**	15
Essent Guaranty, Inc.	**14**	12
Others	**10**	9
Total	**100%**	100%

(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. Upon acquisition, Genworth Mortgage Insurance Corp. will continue to be subject to our ongoing review of financial and operational eligibility requirements.

Three of our mortgage insurer counterparties that are currently not approved to write new business are in run-off: PMI Mortgage Insurance Co. (“PMI”), Triad Guaranty Insurance Corporation (“Triad”) and Republic Mortgage Insurance Company (“RMIC”). 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. These three mortgage insurers provided a combined $3.3 billion, or 2%, of our risk in force mortgage insurance coverage of our single-family conventional guaranty book of business as of December 31, 2019.

PMI and Triad have been paying only a portion of policyholder claims and deferring the remaining portion. PMI is currently paying 74.5% of claims under its mortgage insurance policies in cash and is deferring the remaining 25.5%, 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 any remaining 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.

We have counterparty credit risk relating to the potential insolvency of, or non-performance by, mortgage insurers that insure single-family loans we purchase or guarantee. There is risk that these counterparties may fail to fulfill their obligations to pay our claims under insurance policies. On at least a quarterly basis, we assess our mortgage insurer counterparties' respective abilities to fulfill their obligations to us. Our assessment includes financial reviews and analyses of the insurers' portfolios and capital adequacy. If we determine that it is probable that we will not collect all of our claims from one or more of our mortgage insurer counterparties, it could increase our loss reserves, which could adversely affect our results of operations, liquidity, financial condition and net worth.

When we estimate the credit losses that are inherent in our mortgage loans and under the terms of our guaranty obligations, we also consider the recoveries that we will receive on primary mortgage insurance, as mortgage insurance recoveries would reduce the severity of the loss associated with defaulted loans. We evaluate the financial condition of our mortgage insurer counterparties and adjust the contractually due recovery amounts to ensure that only probable losses as of the balance sheet date are included in our loss reserve estimate. As a result, if our assessment of one or more of our mortgage insurer counterparties' ability to fulfill their respective obligations to us worsens, it could increase our loss reserves. As of December 31, 2019 and 2018, our estimated benefit from mortgage insurance reduced our loss reserves by $410 million and $691 million, respectively.

When an insured loan held in our retained mortgage portfolio subsequently goes into foreclosure, we charge off the loan, eliminating any previously-recorded loss reserves, and record REO and a mortgage insurance receivable for the claim proceeds deemed probable of recovery, as appropriate. However, if a mortgage insurer rescinds, cancels or denies insurance coverage, the initial receivable becomes due from the mortgage seller or servicer. We had outstanding receivables of $654 million recorded in "Other assets" in our consolidated balance sheets as of December 31, 2019 and $745 million as of December 31, 2018 related to amounts claimed on insured, defaulted loans excluding government-insured loans. We assessed these outstanding receivables for collectability, and established a valuation allowance of $541 million as of December 31, 2019 and $564 million as of December 31, 2018, which reduced our claim receivable to the amount considered probable of collection.

Mortgage Servicers and Sellers. Mortgage servicers collect mortgage and escrow payments from borrowers, pay taxes and insurance costs from escrow accounts, monitor and report delinquencies, and perform other required activities on our behalf. Our mortgage servicers and sellers may also be obligated to repurchase loans or foreclosed properties, reimburse us for losses or provide other remedies under certain circumstances, such as if it is determined that the mortgage loan did not meet our underwriting or eligibility requirements, if certain loan representations and warranties are violated or if mortgage insurers rescind coverage. Our representation and warranty framework does not require repurchase for loans that have breaches of certain selling representations and warranties if they have met specified criteria for relief.

Our business with mortgage servicers is concentrated. The table below displays 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, and identifies one servicer that serviced more than 10% of our single-family guaranty book of business based on unpaid principal balance.

	Percentage of Single-Family Guaranty Book of Business	
	As of December 31,	
	2019	**2018**
Wells Fargo Bank, N.A. (together with its affiliates)	**17%**	18%
Remaining top five depository servicers	**15**	16
Top five non-depository servicers	**27**	22
Total	**59%**	56%

There was an increase in the portion of our single-family guaranty book serviced by our top five non-depository servicers in 2019, particularly for our delinquent single-family loans. Compared with depository financial institutions, these institutions pose additional risks 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 table below displays the percentage of our multifamily guaranty book of business serviced by our top five multifamily mortgage servicers, and identifies two servicers that serviced 10% or more of our multifamily guaranty book of business based on unpaid principal balance.

	Percentage of Multifamily Guaranty Book of Business	
	As of December 31,	
	2019	**2018**
Wells Fargo Bank, N.A. (together with its affiliates)	**13%**	14%
Walker & Dunlop, LLC	**12**	12
Remaining top five servicers	**23**	22
Total	**48%**	48%

If a significant mortgage servicer or seller counterparty, or a number of mortgage servicers or sellers, fails to meet their obligations to us, it could adversely affect our results of operations and financial condition. 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 servicing performance expectations.

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.

Multifamily Lenders with Risk Sharing. We enter into risk sharing agreements with lenders pursuant to which the lenders agree to bear all or some portion of the credit losses on the covered loans. Our maximum potential loss recovery from lenders under these risk sharing agreements on both Delegated Underwriting and Servicing ("DUS") and non-DUS multifamily loans was $81.4 billion as of December 31, 2019, compared with $71.8 billion as of December 31, 2018. As of December 31, 2019 and 2018, 44% of our maximum potential loss recovery on multifamily loans was from four DUS lenders.

Derivatives Counterparties. For information on credit risk associated with our derivative transactions and repurchase agreements see "Note 8, Derivative Instruments" and "Note 14, Netting Arrangements."

14. Netting Arrangements

We use master netting arrangements, which allow us to offset certain financial instruments and collateral with the same counterparty, to minimize counterparty credit exposure. The tables below display information related to derivatives, securities purchased under agreements to resell or similar arrangements, and securities sold under agreements to repurchase or similar arrangements, which are subject to an enforceable master netting arrangement or similar agreement that are either offset or not offset in our consolidated balance sheets.

	As of December 31, 2019					
				Amounts Not Offset in our Consolidated Balance Sheets		
	Gross Amount	Gross Amount Offset[1]	Net Amount Presented in our Consolidated Balance Sheets	Financial Instruments[2]	Collateral[3]	Net Amount
	(Dollars in millions)					
Assets:						
OTC risk management derivatives	$ 1,354	$ (1,334)	$ 20	$ —	$ —	$ 20
Cleared risk management derivatives	—	46	46	—	—	46
Mortgage commitment derivatives	165	—	165	(101)	(1)	63
Total derivative assets	1,519	(1,288)	231 [4]	(101)	(1)	129
Securities purchased under agreements to resell or similar arrangements[5]	24,928	—	24,928	—	(24,928)	—
Total assets	$ 26,447	$ (1,288)	$ 25,159	$ (101)	$ (24,929)	$ 129
Liabilities:						
OTC risk management derivatives	$ (1,798)	$ 1,695	$ (103)	$ —	$ —	$ (103)
Cleared risk management derivatives	—	(1)	(1)	—	1	—
Mortgage commitment derivatives	(306)	—	(306)	101	181	(24)
Total derivative liabilities	(2,104)	1,694	(410) [4]	101	182	(127)
Securities sold under agreements to repurchase or similar arrangements[5]	(478)	—	(478)	—	475	(3)
Total liabilities	$ (2,582)	$ 1,694	$ (888)	$ 101	$ 657	$ (130)

	As of December 31, 2018					
				Amounts Not Offset in our Consolidated Balance Sheets		
	Gross Amount	Gross Amount Offset[1]	Net Amount Presented in our Consolidated Balance Sheets	Financial Instruments[2]	Collateral[3]	Net Amount
	(Dollars in millions)					
Assets:						
OTC risk management derivatives	$ 2,288	$ (2,273)	$ 15	$ —	$ —	$ 15
Cleared risk management derivatives	—	7	7	—	—	7
Mortgage commitment derivatives	379	—	379	(153)	(7)	219
Total derivative assets	2,667	(2,266)	401 [4]	(153)	(7)	241
Securities purchased under agreements to resell or similar arrangements[5]	48,288	—	48,288	—	(48,288)	—
Total assets	$ 50,955	$ (2,266)	$ 48,689	$ (153)	$ (48,295)	$ 241
Liabilities:						
OTC risk management derivatives	$ (2,433)	$ 2,342	$ (91)	$ —	$ —	$ (91)
Cleared risk management derivatives	—	(27)	(27)	—	23	(4)
Mortgage commitment derivatives	(648)	—	(648)	153	466	(29)
Total derivative liabilities	(3,081)	2,315	(766) [4]	153	489	(124)
Total liabilities	$ (3,081)	$ 2,315	$ (766)	$ 153	$ 489	$ (124)

(1) Represents the effect of the right to offset under legally enforceable master netting arrangements to settle with the same counterparty on a net basis, including cash collateral posted and received and accrued interest.

(2) Mortgage commitment derivative amounts reflect where we have recognized both an asset and a liability with the same counterparty under an enforceable master netting arrangement but we have not elected to offset the related amounts in our consolidated balance sheets.

(3) Represents collateral received that has not been recognized and not offset in our consolidated balance sheets as well as collateral posted which has been recognized but not offset in our consolidated balance sheets. Does not include collateral held or posted in excess of our exposure. The fair value of non-cash collateral we pledged which the counterparty was permitted to sell or repledge was $2.3 billion and $1.9 billion as of December 31, 2019 and 2018, respectively. The fair value of non-cash collateral received was $24.7 billion and $48.4 billion, of which $23.8 billion and $45.7 billion could be sold or repledged as of December 31, 2019 and 2018, respectively. None of the underlying collateral was sold or repledged as of December 31, 2019 and 2018, respectively.

(4) Excludes derivative assets of $40 million and $57 million as of December 31, 2019 and 2018, respectively, and derivative liabilities of $25 million and $11 million recognized in our consolidated balance sheets as of December 31, 2019 and 2018, respectively, that are not subject to enforceable master netting arrangements.

(5) Includes $11.4 billion and $15.4 billion of securities purchased under agreements to resell classified as “Cash and cash equivalents” in our consolidated balance sheets as of December 31, 2019 and 2018, respectively.

Derivative instruments are recorded at fair value and securities purchased under agreements to resell or similar arrangements are recorded at amortized cost in our consolidated balance sheets.

We determine our rights to offset the assets and liabilities presented above with the same counterparty, including collateral posted or received, based on the contractual arrangements entered into with our individual counterparties and various rules and regulations that would govern the insolvency of a derivative counterparty. The following is a description, under various agreements, of the nature of those rights and their effect or potential effect on our financial position.

The terms of the majority of our contracts for OTC risk management derivatives are governed under master agreements of the International Swaps and Derivatives Association Inc. (“ISDA”). These agreements provide that all transactions entered into under the agreement with the counterparty constitute a single contractual relationship. An event of default by the counterparty allows the early termination of all outstanding transactions under the same ISDA agreement and we may offset all outstanding amounts related to the terminated transactions including collateral posted or received.

The terms of our contracts for cleared derivatives are governed under the rules of the clearing organization and the agreement between us and the clearing member of that clearing organization. In the event of a clearing organization default, all open positions at the clearing organization are closed and a net position (on a clearing member by clearing member basis) is calculated. Unless otherwise transferred, in the event of a clearing member default, all open positions cleared through that clearing member are closed and a net position is calculated.

The terms of our contracts for mortgage commitment derivatives are primarily governed by the Fannie Mae Single-Family Selling Guide (“Selling Guide”), for Fannie Mae-approved lenders, or Master Securities Forward Transaction Agreements (“MSFTA”), for counterparties that are not Fannie Mae-approved lenders. In the event of default by the counterparty, both the Guide and the MSFTA allow us to terminate all outstanding transactions under the applicable agreement and offset all outstanding amounts related to the terminated transactions including collateral posted or received. Under the Guide, upon a lender event of default, we generally may offset any amounts owed to a lender against any amounts a lender may owe us under any other existing agreement, regardless of whether or not such other agreements are in default or payments are immediately due.

The terms of our contracts for securities purchased under agreements to resell and securities sold under agreements to repurchase are governed by Master Repurchase Agreements, which are based on the guidelines prescribed by the Securities Industry and Financial Markets Association. Master Repurchase Agreements provide that all transactions under the agreement constitute a single contractual relationship. An event of default by the counterparty allows the early termination of all outstanding transactions under the same agreement and we may offset all outstanding amounts related to the terminated transactions including collateral posted or received.

We also have securities purchased under agreements to resell which we transact through the Fixed Income Clearing Corporation (“FICC”). All agreements for securities purchased under agreements to resell that are submitted to the FICC for clearing become transactions with the FICC that are subject to FICC clearing rules. In the event of a FICC default, all open positions at the FICC are closed and a net position is calculated.

15. Fair Value

We use fair value measurements for the initial recording of certain assets and liabilities and periodic remeasurement of certain assets and liabilities on a recurring or nonrecurring basis.

Fair Value Measurement

Fair value measurement guidance defines fair value, establishes a framework for measuring fair value and sets forth disclosures around fair value measurements. This guidance applies whenever other accounting guidance requires or permits assets or liabilities to be measured at fair value. The guidance establishes a three-level fair value hierarchy that prioritizes the inputs into the valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority, Level 1, to measurements based on unadjusted quoted prices in active markets for identical assets or liabilities. The next highest priority,

Level 2, is given to measurements of assets and liabilities based on limited observable inputs or observable inputs for similar assets and liabilities. The lowest priority, Level 3, is given to measurements based on unobservable inputs.

Recurring Changes in Fair Value

The following tables display our assets and liabilities measured in our consolidated balance sheets at fair value on a recurring basis subsequent to initial recognition, including instruments for which we have elected the fair value option.

	Fair Value Measurements as of December 31, 2019				
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Netting Adjustment[(1)]	Estimated Fair Value
	(Dollars in millions)				
Recurring fair value measurements:					
Assets:					
Trading securities:					
Mortgage-related securities:					
Fannie Mae	$ —	$ 3,379	$ 45	$ —	$ 3,424
Other agency	—	4,489	1	—	4,490
Private-label and other mortgage securities	—	629	—	—	629
Non-mortgage-related securities:					
U.S. Treasury securities	39,501	—	—	—	39,501
Other securities	—	79	—	—	79
Total trading securities	39,501	8,576	46	—	48,123
Available-for-sale securities:					
Mortgage-related securities:					
Fannie Mae	—	1,349	171	—	1,520
Other agency	—	198	—	—	198
Alt-A and subprime private-label securities	—	57	—	—	57
Mortgage revenue bonds	—	—	315	—	315
Other	—	8	306	—	314
Total available-for-sale securities	—	1,612	792	—	2,404
Mortgage loans	—	7,137	688	—	7,825
Other assets:					
Risk management derivatives:					
Swaps	—	1,071	159	—	1,230
Swaptions	—	124	—	—	124
Netting adjustment	—	—	—	(1,288)	(1,288)
Mortgage commitment derivatives	—	165	—	—	165
Credit enhancement derivatives	—	—	40	—	40
Total other assets	—	1,360	199	(1,288)	271
Total assets at fair value	$ 39,501	$ 18,685	$ 1,725	$ (1,288)	$ 58,623
Liabilities:					
Long-term debt:					
Of Fannie Mae:					
Senior floating	$ —	$ 5,289	$ 398	$ —	$ 5,687
Total of Fannie Mae	—	5,289	398	—	5,687
Of consolidated trusts	—	21,805	75	—	21,880
Total long-term debt	—	27,094	473	—	27,567
Other liabilities:					
Risk management derivatives:					
Swaps	—	1,346	1	—	1,347
Swaptions	—	440	11	—	451
Netting adjustment	—	—	—	(1,694)	(1,694)
Mortgage commitment derivatives	—	306	—	—	306
Credit enhancement derivatives	—	—	25	—	25
Total other liabilities	—	2,092	37	(1,694)	435
Total liabilities at fair value	$ —	$ 29,186	$ 510	$ (1,694)	$ 28,002

	Fair Value Measurements as of December 31, 2018				
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Netting Adjustment[1]	Estimated Fair Value
	(Dollars in millions)				
Assets:					
Cash equivalents[2]	$ 748	$ —	$ —	$ —	$ 748
Trading securities:					
Mortgage-related securities:					
Fannie Mae	—	1,435	32	—	1,467
Other agency	—	3,503	—	—	3,503
Private-label and other mortgage securities	—	1,305	1	—	1,306
Non-mortgage-related securities:					
U.S. Treasury securities	35,502	—	—	—	35,502
Other securities	—	89	—	—	89
Total trading securities	35,502	6,332	33	—	41,867
Available-for-sale securities:					
Mortgage-related securities:					
Fannie Mae	—	1,645	152	—	1,797
Other agency	—	256	—	—	256
Alt-A and subprime private-label securities	—	568	24	—	592
Mortgage revenue bonds	—	—	434	—	434
Other	—	8	342	—	350
Total available-for-sale securities	—	2,477	952	—	3,429
Mortgage loans	—	7,985	937	—	8,922
Other assets:					
Risk management derivatives:					
Swaps	—	1,962	115	—	2,077
Swaptions	—	211	—	—	211
Netting adjustment	—	—	—	(2,266)	(2,266)
Mortgage commitment derivatives	—	342	37	—	379
Credit enhancement derivatives	—	—	57	—	57
Total other assets	—	2,515	209	(2,266)	458
Total assets at fair value	$ 36,250	$ 19,309	$ 2,131	$ (2,266)	$ 55,424
Liabilities:					
Long-term debt:					
Of Fannie Mae:					
Senior floating	$ —	$ 6,475	$ 351	$ —	$ 6,826
Total of Fannie Mae	—	6,475	351	—	6,826
Of consolidated trusts	—	23,552	201	—	23,753
Total long-term debt	—	30,027	552	—	30,579
Other liabilities:					
Risk management derivatives:					
Swaps	—	2,089	2	—	2,091
Swaptions	—	342	—	—	342
Netting adjustment	—	—	—	(2,315)	(2,315)
Mortgage commitment derivatives	—	646	2	—	648
Credit enhancement derivatives	—	—	11	—	11
Total other liabilities	—	3,077	15	(2,315)	777
Total liabilities at fair value	$ —	$ 33,104	$ 567	$ (2,315)	$ 31,356

(1) Derivative contracts are reported on a gross basis by level. The netting adjustment represents the effect of the legal right to offset under legally enforceable master netting arrangements to settle with the same counterparty on a net basis, including cash collateral posted and received.

(2) Cash equivalents are comprised of U.S. Treasuries that have a maturity at the date of acquisition of three months or less.

The following tables display a reconciliation of all assets and liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3). The tables also display gains and losses due to changes in fair value, including both realized and unrealized gains and losses, recognized in our consolidated statements of operations and comprehensive income for Level 3 assets and liabilities.

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

For the Year Ended December 31, 2019

	Balance, December 31, 2018	Total Gains (Losses) (Realized/Unrealized)		Purchases[2]	Sales[2]	Issues[3]	Settlements[3]	Transfers out of Level 3[4]	Transfers into Level 3[4]	Balance, December 31, 2019	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2019[5][6]	Net Unrealized Gains (Losses) Included in OCI Related to Assets and Liabilities Still Held as of December 31, 2019[1]
		Included in Net Income	Included in Total OCI Gains/(Losses)[1]									
	(Dollars in millions)											
Trading securities:												
Mortgage-related:												
Fannie Mae	$ 32	$ 3	$ —	$ 77	$ (22)	$ —	$ (16)	$ (108)	$ 79	$ 45	$ 1	$ —
Other agency	—	—	—	—	—	—	—	—	1	1	—	—
Private-label and other mortgage securities	1	—	—	—	—	—	(1)	—	—	—	—	—
Total trading securities	$ 33	$ 3 [6][7]	$ —	$ 77	$ (22)	$ —	$ (17)	$ (108)	$ 80	$ 46	$ 1	$ —
Available-for-sale securities:												
Mortgage-related:												
Fannie Mae	$ 152	$ —	$ 7	$ —	$ —	$ —	$ (8)	$ (103)	$ 123	$ 171	$ —	$ 6
Alt-A and subprime private-label securities	24	5	(5)	—	(23)	—	(1)	—	—	—	—	—
Mortgage revenue bonds	434	1	(3)	—	(5)	—	(112)	—	—	315	—	(1)
Other	342	13	(10)	—	—	—	(37)	(3)	1	306	—	(8)
Total available-for-sale securities	$ 952	$ 19 [7][8]	$ (11)	$ —	$ (28)	$ —	$ (158)	$ (106)	$ 124	$ 792	$ —	$ (3)
Mortgage loans	$ 937	$ 46 [6][7]	$ —	$ —	$ (52)	$ —	$ (136)	$ (254)	$ 147	$ 688	$ 26	$ —
Net derivatives	194	109 [6]	—	—	—	—	(119)	(10)	(12)	162	3	—
Long-term debt:												
Of Fannie Mae:												
Senior floating	(351)	(47) [6]	—	—	—	—	—	—	—	(398)	(47)	—
Of consolidated trusts	(201)	(8) [6][7]	—	—	—	(2)	19	200	(83)	(75)	(4)	—
Total long-term debt	$ (552)	$ (55)	$ —	$ —	$ —	$ (2)	$ 19	$ 200	$ (83)	$ (473)	$ (51)	$ —

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

For the Year Ended December 31, 2018

	Balance, December 31, 2017	Total Gains (Losses) (Realized/Unrealized)		Purchases(2)	Sales(2)	Issues(3)	Settlements(3)	Transfers out of Level 3(4)	Transfers into Level 3(4)	Balance, December 31, 2018	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2018(5)(6)	Net Unrealized Gains (Losses) Included in OCI Related to Assets and Liabilities Still Held as of December 31, 2018(1)
		Included in Net Income	Included in Total OCI (Loss)(1)									
	(Dollars in millions)											
Trading securities:												
Mortgage-related:												
Fannie Mae	$ 971	$ 163	$ —	$ 1	$ (1,059)	$ —	$ (1)	$ (44)	$ 1	$ 32	$ 4	$ —
Other agency	35	(1)	—	—	—	—	(1)	(33)	—	—	—	—
Private-label and other mortgage securities	195	(85)	—	—	—	—	(5)	(104)	—	1	—	—
Total trading securities	$ 1,201	$ 77 (6)(7)	$ —	$ 1	$ (1,059)	$ —	$ (7)	$ (181)	$ 1	$ 33	$ 4	$ —
Available-for-sale securities:												
Mortgage-related:												
Fannie Mae	$ 208	$ 2	$ 1	$ —	$ —	$ —	$ (10)	$ (49)	$ —	$ 152	$ —	$ —
Alt-A and subprime private-label securities	77	—	(45)	—	—	—	(4)	(4)	—	24	—	1
Mortgage revenue bonds	671	—	(7)	—	(22)	—	(208)	—	—	434	—	(2)
Other	357	28	(2)	—	—	—	(41)	—	—	342	—	1
Total available-for-sale securities	$ 1,313	$ 30 (7)(8)	$ (53)	$ —	$ (22)	$ —	$ (263)	$ (53)	$ —	$ 952	$ —	$ —
Mortgage loans	$ 1,116	$ 38 (6)(7)	$ —	$ —	$ —	$ —	$ (216)	$ (162)	$ 161	$ 937	$ 14	$ —
Net derivatives	134	(38) (6)	—	—	—	—	45	53	—	194	40	—
Long-term debt:												
Of Fannie Mae:												
Senior floating	(376)	25 (6)	—	—	—	—	—	—	—	(351)	25	—
Of consolidated trusts	(582)	9 (6)(7)	—	—	—	1	44	541	(214)	(201)	(2)	—
Total long-term debt	$ (958)	$ 34	$ —	$ —	$ —	$ 1	$ 44	$ 541	$ (214)	$ (552)	$ 23	$ —

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

For the Year Ended December 31, 2017

	Balance, December 31, 2016	Total Gains (Losses) (Realized/Unrealized)		Purchases[2]	Sales[2]	Issues[3]	Settlements[3]	Transfers out of Level 3[4]	Transfers into Level 3[4]	Balance, December 31, 2017	Net Unrealized Gains (Losses) Included in Net Income Related to Assets and Liabilities Still Held as of December 31, 2017[5][6]	Net Unrealized Gains (Losses) Included in OCI Related to Assets and Liabilities Still Held as of December 31, 2017[1]
		Included in Net Income	Included in Total OCI (Loss)[1]									
	(Dollars in millions)											
Trading securities:												
Mortgage-related:												
Fannie Mae	$ 835	$ 41	$ —	$ 64	$ —	$ —	$ (5)	$ (991)	$ 1,027	$ 971	$ 6	$ —
Other agency	—	—	—	35	—	—	—	—	—	35	—	—
Private-label and other mortgage securities	292	18	—	—	(81)	—	(34)	—	—	195	5	—
Total trading securities	$ 1,127	$ 59 [6][7]	$ —	$ 99	$ (81)	$ —	$ (39)	$ (991)	$ 1,027	$ 1,201	$ 11	$ —
Available-for-sale securities:												
Mortgage-related:												
Fannie Mae	$ 230	$ 2	$ (1)	$ —	$ —	$ —	$ (9)	$ (72)	$ 58	$ 208	$ —	$ —
Other agency	5	—	—	—	(1)	—	—	(4)	—	—	—	—
Alt-A and subprime private-label securities	217	54	(53)	—	(105)	—	(36)	—	—	77	—	4
Mortgage revenue bonds	1,272	35	(11)	—	(392)	—	(233)	—	—	671	—	4
Other	429	8	(11)	—	(5)	—	(64)	—	—	357	—	(7)
Total available-for-sale securities	$ 2,153	$ 99 [7][8]	$ (76)	$ —	$ (503)	$ —	$ (342)	$ (76)	$ 58	$ 1,313	$ —	$ 1
Mortgage loans	$ 1,197	$ 45 [6][7]	$ —	$ 5	$ —	$ —	$ (233)	$ (70)	$ 172	$ 1,116	$ 25	$ —
Net derivatives	44	111 [6]	—	—	—	—	(22)	6	(5)	134	13	—
Long-term debt:												
Of Fannie Mae:												
Senior floating	(347)	(29) [6]	—	—	—	—	—	—	—	(376)	(29)	—
Of consolidated trusts	(241)	(9) [6][7]	—	—	—	(2)	66	388	(784)	(582)	(11)	—
Total long-term debt	$ (588)	$ (38)	$ —	$ —	$ —	$ (2)	$ 66	$ 388	$ (784)	$ (958)	$ (40)	$ —

(1) Gains (losses) included in other comprehensive income are included in "Changes in unrealized gains on available-for-sale securities, net of reclassification adjustments and taxes" in our consolidated statements of operations and comprehensive income.

(2) Purchases and sales include activity related to the consolidation and deconsolidation of assets of securitization trusts. For 2018, includes the dissolution of a Fannie Mae-wrapped private-label securities trust.

(3) Issues and settlements include activity related to the consolidation and deconsolidation of liabilities of securitization trusts.

(4) Transfers into and out of Level 3 consisted primarily of Fannie Mae securities backed by private-label mortgage-related securities. Prices for these securities are based on inputs that were not readily observable. Transfers out of Level 3 also occurred for Alt-A loans and subprime private-label mortgage-related securities. Prices for these securities were available from multiple third-party vendors and demonstrated an increased and sustained level of observability over time.

(5) Amount represents temporary changes in fair value. Amortization, accretion and OTTI are not considered unrealized and are not included in this amount.

(6) Gains (losses) are included in "Fair value gains (losses), net" in our consolidated statements of operations and comprehensive income.

(7) Gains (losses) are included in "Net interest income" in our consolidated statements of operations and comprehensive income.

(8) Gains (losses) are included in "Investment gains, net" in our consolidated statements of operations and comprehensive income.

The following tables display valuation techniques and the range and the weighted average of significant unobservable inputs for our Level 3 assets and liabilities measured at fair value on a recurring basis, excluding instruments for which we have elected the fair value option. Changes in these unobservable inputs can result in significantly higher or lower fair value measurements of these assets and liabilities as of the reporting date.

	Fair Value Measurements as of December 31, 2019				
	Fair Value	Significant Valuation Techniques	Significant Unobservable Inputs[1]	Range[1]	Weighted - Average[1][2]
			(Dollars in millions)		
Recurring fair value measurements:					
Trading securities:					
Mortgage-related securities:					
Agency[3]	$ 46	Various			
Available-for-sale securities:					
Mortgage-related securities:					
Agency[3]	107	Consensus			
	64	Various			
Total agency	171				
Mortgage Revenue Bonds	222	Single Vendor	Spreads (bps)	23.0 - 205.1	76.1
	93	Various			
Total mortgage revenue bonds	315				
Other	267	Discounted Cash Flow	Spreads (bps)	300.0	300.0
	39	Various			
Total other	306				
Total available-for-sale securities	$ 792				
Net derivatives	$ 147	Dealer Mark			
	15	Various			
Total net derivatives	$ 162				

	Fair Value Measurements as of December 31, 2018				
	Fair Value	Significant Valuation Techniques	Significant Unobservable Inputs[1]	Range[1]	Weighted - Average[1][2]
	(Dollars in millions)				
Recurring fair value measurements:					
Trading securities:					
Mortgage-related securities:					
Agency[3]	$ 32	Various			
Private-label and other mortgage securities	1	Various			
Total trading securities	$ 33				
Available-for-sale securities:					
Mortgage-related securities:					
Agency[3]	$ 152	Various			
Alt-A and subprime private-label securities	24	Various			
Mortgage revenue bonds	349	Single Vendor	Spreads (bps)	(0.5) - 332.8	59.0
	85	Various			
Total mortgage revenue bonds	434				
Other	294	Discounted Cash Flow	Default Rate (%)	4.7	4.7
			Prepayment Speed (%)	8.2	8.2
			Severity (%)	70.0	70.0
			Spreads (bps)	75.4 - 390.0	389.1
	48	Various			
Total other	342				
Total available-for-sale securities	$ 952				
Net derivatives	$ 113	Dealer Mark			
	81	Various			
Total net derivatives	$ 194				

(1) Valuation techniques for which no unobservable inputs are disclosed generally reflect the use of third-party pricing services or dealers, and the range of unobservable inputs applied by these sources is not readily available or cannot be reasonably estimated. Where we have disclosed unobservable inputs for consensus and single vendor techniques, those inputs are based on our validations performed at the security level using discounted cash flows.

(2) Unobservable inputs were weighted by the relative fair value of the instruments.

(3) Includes Fannie Mae and Freddie Mac securities.

In our consolidated balance sheets certain assets and liabilities are measured at fair value on a nonrecurring basis; that is, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances (for example, when we evaluate loans for impairment). We held no Level 1 assets or liabilities as of December 31, 2019 or December 31, 2018 that were measured on a nonrecurring basis. We held $274 million and $91 million in Level 2 assets, comprised of mortgage loans held for sale and mortgage loans held for investment that were individually impaired. We had no Level 2 liabilities that were measured at fair value on a nonrecurring basis as of December 31, 2019 or December 31, 2018.

The following table displays valuation techniques for our Level 3 assets measured at fair value on a nonrecurring basis. The significant unobservable inputs related to these techniques primarily relate to collateral dependent valuations. The related ranges and weighted averages are not meaningful when aggregated as they vary significantly from property to property.

		Fair Value Measurements as of December 31,	
	Valuation Techniques	2019	2018
		(Dollars in millions)	
Nonrecurring fair value measurements:			
Mortgage loans held for sale, at lower of cost or fair value	Consensus	**$ 471**	$ 631
	Single Vendor	**605**	1,119
Total mortgage loans held for sale, at lower of cost or fair value		**1,076**	1,750
Single-family mortgage loans held for investment, at amortized cost	Internal Model	**555**	818
Multifamily mortgage loans held for investment, at amortized cost	Asset Manager Estimate	**24**	102
	Various	**16**	40
Total multifamily mortgage loans held for investment, at amortized cost		**40**	142
Acquired property, net:[1]			
Single-family	Accepted Offers	**101**	151
	Appraisals	**362**	419
	Walk Forwards	**240**	181
	Internal Model	**164**	219
	Various	**51**	41
Total single-family		**918**	1,011
Multifamily	Various	**9**	50
Total nonrecurring assets at fair value		**$ 2,598**	$ 3,771

(1) The most commonly used techniques in our valuation of acquired property are a proprietary home price model and third-party valuations (both current and walk forward). Based on the number of properties measured as of December 31, 2019, these methodologies comprised approximately 85% of our valuations, while accepted offers comprised approximately 12% of our valuations. Based on the number of properties measured as of December 31, 2018, these methodologies comprised approximately 82% of our valuations, while accepted offers comprised approximately 15% of our valuations.

We use valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a description of the valuation techniques we use for fair value measurement and disclosure as well as our basis for classifying these measurements as Level 1, Level 2 or Level 3 of the valuation hierarchy in more specific situations.

<table>
<tr><th>Instruments</th><th>Valuation Techniques</th><th>Classification</th></tr>
<tr><td>U.S Treasury Securities</td><td>We classify securities whose values are based on quoted market prices in active markets for identical assets as Level 1 of the valuation hierarchy.</td><td>Level 1</td></tr>
<tr><td>Trading Securities and Available-for-Sale Securities</td><td>We classify securities in active markets as Level 2 of the valuation hierarchy if quoted market prices in active markets for identical assets are not available. For all valuation techniques used for securities where there is limited activity or less transparency around these inputs to the valuation, these securities are classified as Level 3 of the valuation hierarchy.

Single Vendor: Uses one vendor price to estimate fair value. We generally validate these observations of fair value through the use of a discounted cash flow technique whose unobservable inputs (for example, default rates) are disclosed in the table above.

Dealer Mark: Uses one dealer price to estimate fair value. We generally validate these observations of fair value through the use of a discounted cash flow technique whose unobservable inputs (for example, default rates) are disclosed in the table above.

Consensus: Uses an average of two or more vendor prices for similar securities. We generally validate these observations of fair value through the use of a discounted cash flow technique whose unobservable inputs (for example, default rates) are disclosed in the table above.

Discounted Cash Flow: In the absence of prices provided by third-party pricing services supported by observable market data, we estimate the fair value of a portion of our securities using a discounted cash flow technique that uses inputs such as default rates, prepayment speeds, loss severity and spreads based on market assumptions where available.

For private-label securities, an increase in unobservable prepayment speeds in isolation would generally result in an increase in fair value, and an increase in unobservable spreads, severity rates or default rates in isolation would generally result in a decrease in fair value. For mortgage revenue bonds classified as Level 3 of the valuation hierarchy, an increase in unobservable spreads would result in a decrease in fair value. Although we have disclosed unobservable inputs for the fair value of our recurring Level 3 securities above, interrelationships exist among these inputs such that a change in one unobservable input typically results in a change to one or more of the other inputs.</td><td>Level 2 and 3</td></tr>
<tr><td>Mortgage Loans Held for Investment</td><td>Build-up: We derive the fair value of performing mortgage loans using a build-up valuation technique starting with the base value for our Fannie Mae MBS with similar characteristics and then add or subtract the fair value of the associated guaranty asset, guaranty obligation (“GO”) and master servicing arrangement. We set the GO equal to the estimated fair value we would receive if we were to issue our guaranty to an unrelated party in a stand-alone arm’s length transaction at the measurement date. The fair value of the GO is estimated based on our current guaranty pricing for loans underwritten after 2008 and our internal valuation models considering management’s best estimate of key loan characteristics for loans underwritten before 2008. Our performing loans are generally classified as Level 2 of the valuation hierarchy to the extent that significant inputs are observable. To the extent that unobservable inputs are significant, the loans are classified as Level 3 of the valuation hierarchy.

Consensus: Calculated through the extrapolation of indicative sample bids obtained from multiple active market participants plus the estimated value of any applicable mortgage insurance, the estimated fair value using the Consensus method represents an estimate of the prices we would receive if we were to sell these single-family nonperforming and certain reperforming loans in the whole-loan market. The fair value of any mortgage insurance is estimated by taking the loan-level coverage and adjusting it by the expected claims paying ability of the associated mortgage insurer. These loans are classified as Level 3 of the valuation hierarchy because significant inputs are unobservable.

We estimate the fair value for a portion of our senior-subordinated trust structures using the average of two or more vendor prices at the security level as a proxy for estimating loan fair value. These loans are classified as Level 3 of the valuation hierarchy because significant inputs are unobservable.

Single Vendor: We estimate the fair value of our reverse mortgages using the single vendor valuation technique.

Internal Model: The internal model used in this process applies one of following two approaches when valuing the collateral depending on the historical accuracy of the two approaches.

(1) The comparable foreclosed property sales approach is used in the majority of the internal model valuations. The comparable foreclosed property sales approach uses various factors such as geographic distance, transaction time and the value difference.

(2) The median Metropolitan Statistical Area (“MSA”) approach is based on the median of all the foreclosure sales of REOs in a specific MSA or state when there is not enough REO sales in a specific MSA.

These loans are classified as Level 3 of the valuation hierarchy because significant inputs are unobservable.</td><td>Level 2 and 3</td></tr>
</table>

Instruments	Valuation Techniques	Classification
Mortgage Loans Held for Investment	Appraisals: Uses appraisals to estimate the fair value for a portion of our multifamily loans based on either estimated replacement cost, the present value of future cash flows, or sales of similar properties. Significant unobservable inputs include estimated replacement or construction costs, property net operating income, capitalization rates, and adjustments made to sales of comparable properties based on characteristics such as financing, conditions of sale, and physical characteristics of the property. Broker Price Opinion ("BPO"): Uses BPO to estimate the fair value for a portion of our multifamily loans. This technique uses both current property value and the property value adjusted for stabilization and market conditions. The unobservable inputs used in this technique are property net operating income and market capitalization rates to estimate property value. Asset Manager Estimate ("AME"): This technique uses the net operating income and tax assessments of the specific property as well as MSA-specific market capitalization rates and average per unit sales values to estimate property fair value. An increase in prepayment speeds in isolation would generally result in an increase in the fair value of our mortgage loans classified as Level 3 of the valuation hierarchy, and an increase in severity rates, default rates or spreads in isolation would generally result in a decrease in fair value. Although we have disclosed unobservable inputs for the fair value of the mortgage loans classified as Level 3 above, interrelationships exist among these inputs such that a change in one unobservable input typically results in a change to one or more of the other inputs.	Level 2 and 3
Acquired Property, Net and Other Assets	*Single-family acquired property valuation techniques* Appraisal: An appraisal is an estimate based on recent historical data of the value of a specific property by a certified or licensed appraiser. Adjustments are made for differences between comparable properties for unobservable inputs such as square footage, location, and condition of the property. Broker Price Opinion: This technique provides an estimate of what the property is worth based upon a real estate broker's use of specific market research and a sales comparison approach that is similar to the appraisal process. This information, all of which is unobservable, is used along with recent and pending sales and current listings of similar properties to arrive at an estimate of value. Appraisal and Broker Price Opinion Walk Forwards ("Walk Forwards"): We use these techniques to adjust appraisal and broker price opinion valuations for changing market conditions by applying a walk forward factor based on local price movements since the time the third-party value was obtained. Internal Model: We use an internal model to estimate fair value for distressed properties. The valuation methodology and inputs used are described under "Mortgage Loans Held for Investment." *Multifamily acquired property valuation techniques* Appraisals: We use this method to estimate property values for distressed properties. The valuation methodology and inputs used are described under "Mortgage Loans Held for Investment." Broker Price Opinions: We use this method to estimate property values for distressed properties. The valuation methodology and inputs used are described under "Mortgage Loans Held for Investment." Asset Manager Estimate ("AME"): We use this method to estimate property values for distressed properties. The valuation methodology and inputs used are described under "Mortgage Loans Held for Investment."	Level 3
Derivatives Assets and Liabilities (collectively "Derivatives")	The valuation process for the majority of our risk management derivatives uses observable market data provided by third-party sources, resulting in Level 2 classification of the valuation hierarchy. Single Vendor: Uses one vendor price to estimate fair value. We generally validate these observations of fair value through the use of a discounted cash flow technique. Internal Model: We use internal models to value interest-rate derivatives which are valued by referencing yield curves derived from observable interest rates and spreads to project and discount cash flows to present value. Dealer Mark: Certain highly complex structured swaps primarily use a single dealer mark due to lack of transparency in the market and may be modeled using observable interest rates and volatility levels as well as significant unobservable assumptions, resulting in Level 3 classification of the valuation hierarchy. Mortgage commitment derivatives that use observable market data, quotes and actual transaction price levels adjusted for market movement are typically classified as Level 2 of the valuation hierarchy. To the extent mortgage commitment derivatives include adjustments for market movement that cannot be corroborated by observable market data, we classify them as Level 3 of the valuation hierarchy.	Level 2 and 3

Instruments	Valuation Techniques	Classification
Debt of Fannie Mae and Consolidated Trusts	We classify debt instruments that have quoted market prices in active markets for similar liabilities when traded as assets as Level 2 of the valuation hierarchy. For all valuation techniques used for debt instruments where there is limited activity or less transparency around these inputs to the valuation, these debt instruments are classified as Level 3 of the valuation hierarchy. Consensus: Uses an average of two or more vendor prices or dealer marks that represents estimated fair value for similar liabilities when traded as assets. Single Vendor: Uses a single vendor price that represents estimated fair value for these liabilities when traded as assets. Discounted Cash Flow: Uses spreads based on market assumptions where available. The valuation methodology and inputs used in estimating the fair value of MBS assets are described under “Trading Securities and Available-for-Sale Securities.”	Level 2 and 3

Fair Value of Financial Instruments

The following table displays the carrying value and estimated fair value of our financial instruments. The fair value of financial instruments we disclose includes commitments to purchase multifamily and single-family mortgage loans that we do not record in our consolidated balance sheets. The fair values of these commitments are included as “Mortgage loans held for investment, net of allowance for loan losses.” The disclosure excludes all non-financial instruments; therefore, the fair value of our financial assets and liabilities does not represent the underlying fair value of our total consolidated assets and liabilities.

	As of December 31, 2019					
	Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Netting Adjustment	Estimated Fair Value
	(Dollars in millions)					
Financial assets:						
Cash and cash equivalents and restricted cash	$ 61,407	$ 50,057	$ 11,350	$ —	$ —	$ 61,407
Federal funds sold and securities purchased under agreements to resell or similar arrangements	13,578	—	13,578	—	—	13,578
Trading securities	48,123	39,501	8,576	46	—	48,123
Available-for-sale securities	2,404	—	1,612	792	—	2,404
Mortgage loans held for sale	6,773	—	229	7,054	—	7,283
Mortgage loans held for investment, net of allowance for loan losses	3,327,389	—	3,270,535	127,650	—	3,398,185
Advances to lenders	6,453	—	6,451	2	—	6,453
Derivative assets at fair value	271	—	1,360	199	(1,288)	271
Guaranty assets and buy-ups	142	—	—	305	—	305
Total financial assets	$ 3,466,540	$ 89,558	$ 3,313,691	$ 136,048	$ (1,288)	$ 3,538,009
Financial liabilities:						
Federal funds purchased and securities sold under agreements to repurchase	$ 478	$ —	$ 478	$ —	$ —	$ 478
Short-term debt:						
Of Fannie Mae	26,662	—	26,667	—	—	26,667
Long-term debt:						
Of Fannie Mae	155,585	—	164,144	401	—	164,545
Of consolidated trusts	3,285,139	—	3,312,763	31,827	—	3,344,590
Derivative liabilities at fair value	435	—	2,092	37	(1,694)	435
Guaranty obligations	154	—	—	97	—	97
Total financial liabilities	$ 3,468,453	$ —	$ 3,506,144	$ 32,362	$ (1,694)	$ 3,536,812

	As of December 31, 2018					
	Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Netting Adjustment	Estimated Fair Value
	(Dollars in millions)					
Financial assets:						
Cash and cash equivalents and restricted cash	$ 49,423	$ 34,073	$ 15,350	$ —	$ —	$ 49,423
Federal funds sold and securities purchased under agreements to resell or similar arrangements	32,938	—	32,938	—	—	32,938
Trading securities	41,867	35,502	6,332	33	—	41,867
Available-for-sale securities	3,429	—	2,477	952	—	3,429
Mortgage loans held for sale	7,701	—	238	7,856	—	8,094
Mortgage loans held for investment, net of allowance for loan losses	3,241,694	—	2,990,104	216,404	—	3,206,508
Advances to lenders	3,356	—	3,354	2	—	3,356
Derivative assets at fair value	458	—	2,515	209	(2,266)	458
Guaranty assets and buy-ups	147	—	—	356	—	356
Total financial assets	$ 3,381,013	$ 69,575	$ 3,053,308	$ 225,812	$ (2,266)	$ 3,346,429
Financial liabilities:						
Short-term debt:						
Of Fannie Mae	$ 24,896	$ —	$ 24,901	$ —	$ —	$ 24,901
Long-term debt:						
Of Fannie Mae	207,178	—	211,403	771	—	212,174
Of consolidated trusts	3,159,846	—	3,064,239	39,043	—	3,103,282
Derivative liabilities at fair value	777	—	3,077	15	(2,315)	777
Guaranty obligations	160	—	—	121	—	121
Total financial liabilities	$ 3,392,857	$ —	$ 3,303,620	$ 39,950	$ (2,315)	$ 3,341,255

The following is a description of the valuation techniques we use for fair value measurement of our financial instruments as well as our basis for classifying these measurements as Level 1, Level 2 or Level 3 of the valuation hierarchy in certain specific situations.

Instruments	Description	Classification
Financial instruments for which fair value approximates carrying value	We hold certain financial instruments that are not carried at fair value but for which the carrying value approximates fair value due to the short-term nature and negligible credit risk inherent in them. These financial instruments include cash and cash equivalents, the majority of advances to lenders, and federal funds and securities sold/purchased under agreements to repurchase/resell.	Level 1 and 2
Federal funds and securities sold/purchased under agreements to repurchase/resell	The carrying value for the majority of these specific instruments approximates the fair value due to the short-term nature and the negligible inherent credit risk, as they involve the exchange of collateral that is easily traded. Were we to calculate the fair value of these instruments, we would use observable inputs.	Level 2
Mortgage loans held for sale	Loans are reported at the lower of cost or fair value in our consolidated balance sheets. The valuation methodology and inputs used in estimating the fair value of HFS loans are the same as for our HFI loans and are described under "Fair Value Measurement—Mortgage Loans Held for Investment." To the extent that significant inputs are unobservable, the loans are classified within Level 3 of the valuation hierarchy.	Level 2 and 3
Mortgage loans held for investment	For a description of loan valuation techniques, refer to "Fair Value Measurement—Mortgage Loans Held for Investment." We measure the fair value of certain loans that are delivered under the Home Affordable Refinance Program ("HARP") using a modified build-up approach while the loan is performing. Under this modified approach, we set the credit component of the consolidated loans (that is, the guaranty obligation) equal to the compensation we would currently receive for a loan delivered to us under the program because the total compensation for these loans is equal to their current exit price in the government-sponsored enterprise securitization market. We will continue to use this pricing methodology as long as the HARP program is available to market participants. If, subsequent to delivery, the refinanced loan becomes past due or is modified as a part of a troubled debt restructuring, the fair value of the guaranty obligation is then measured consistent with other loans that have similar characteristics.	Level 2 and 3
Advances to lenders	The carrying value for the majority of our advances to lenders approximates the fair value due to the short-term nature and the negligible inherent credit risk. If we were to calculate the fair value of these instruments, we would use discounted cash flow models that use observable inputs such as spreads based on market assumptions, resulting in Level 2 classification. Advances to lenders also include loans that do not qualify for Fannie Mae MBS securitization and are valued using a discounted cash flow technique that uses estimated credit spreads of similar collateral and prepayment speeds that consider recent prepayment activity. We classify these valuations as Level 3 given that significant inputs are not observable or are determined by extrapolation of observable inputs.	Level 2 and 3
Guaranty assets and buy-ups	Guaranty assets related to our portfolio securitizations are recorded in our consolidated balance sheets at fair value on a recurring basis and are classified as Level 3. Guaranty assets in lender swap transactions are recorded in our consolidated balance sheets at the lower of cost or fair value. These assets, which are measured at fair value on a nonrecurring basis, are also classified as Level 3. We estimate the fair value of guaranty assets by using proprietary models to project cash flows based on management's best estimate of key assumptions such as prepayment speeds and forward yield curves. Because guaranty assets are similar to an interest-only income stream, the projected cash flows are discounted at rates that consider the current spreads on interest-only swaps that reference Fannie Mae MBS and also liquidity considerations of the guaranty assets. The fair value of guaranty assets includes the fair value of any associated buy-ups.	Level 3
Guaranty obligations	The fair value of all guaranty obligations, measured subsequent to their initial recognition, is our estimate of a hypothetical transaction price we would receive if we were to issue our guaranty to an unrelated party in a standalone arm's-length transaction at the measurement date. The valuation methodology and inputs used in estimating the fair value of the guaranty obligations are described under "Fair Value Measurement—Mortgage Loans Held for Investment—Build-up."	Level 3

Fair Value Option

We elected the fair value option for loans and debt which contain embedded derivatives that would otherwise require bifurcation. Additionally, we elected the fair value option for our credit risk-sharing securities accounted for as debt of Fannie Mae issued under our CAS series prior to January 1, 2016. Under the fair value option, we elected to carry these instruments at fair value instead of bifurcating the embedded derivative from such instruments.

Interest income for the mortgage loans is recorded in "Interest income—Mortgage loans" and interest expense for the debt instruments is recorded in "Interest expense—Long-term debt" in our consolidated statements of operations and comprehensive income.

The following table displays the fair value and unpaid principal balance of the financial instruments for which we have made fair value elections.

	As of December 31,					
	2019			2018		
	Loans[(1)]	Long-Term Debt of Fannie Mae	Long-Term Debt of Consolidated Trusts	Loans[(1)]	Long-Term Debt of Fannie Mae	Long-Term Debt of Consolidated Trusts
	(Dollars in millions)					
Fair value	**$ 7,825**	**$ 5,687**	**$ 21,880**	$ 8,922	$ 6,826	$ 23,753
Unpaid principal balance	**7,514**	**5,200**	**19,653**	8,832	6,241	22,080

(1) Includes nonaccrual loans with a fair value of $129 million and $161 million as of December 31, 2019 and 2018, respectively. The difference between unpaid principal balance and the fair value of these nonaccrual loans as of December 31, 2019 and 2018 is $11 million and $19 million, respectively. Includes loans that are 90 days or more past due with a fair value of $80 million and $102 million as of December 31, 2019 and 2018, respectively. The difference between unpaid principal balance and the fair value of these 90 or more days past due loans as of December 31, 2019 and 2018 is $10 million and $14 million, respectively.

Changes in Fair Value under the Fair Value Option Election

We recorded gains of $357 million, losses of $128 million and gains of $136 million for the years ended December 31, 2019, 2018 and 2017, respectively, from changes in the fair value of loans recorded at fair value in “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income.

We recorded losses of $765 million, gains of $688 million and losses of $294 million for the years ended December 31, 2019, 2018 and 2017, respectively, from changes in the fair value of long-term debt recorded at fair value in “Fair value gains (losses), net” in our consolidated statements of operations and comprehensive income.

16. Commitments and Contingencies

We are party to various types of legal actions and proceedings, including actions brought on behalf of various classes of claimants. We also are subject to regulatory examinations, inquiries and investigations, and other information gathering requests. In some of the matters, indeterminate amounts are sought. Modern pleading practice in the U.S. permits considerable variation in the assertion of monetary damages or other relief. Jurisdictions may permit claimants not to specify the monetary damages sought or may permit claimants to state only that the amount sought is sufficient to invoke the jurisdiction of the trial court. This variability in pleadings, together with our and our counsel’s actual experience in litigating or settling claims, leads us to conclude that the monetary relief that may be sought by plaintiffs bears little relevance to the merits or disposition value of claims.

We have substantial and valid defenses to the claims in the proceedings described below and intend to defend these matters vigorously. However, legal actions and proceedings of all types are subject to many uncertain factors that generally cannot be predicted with assurance. Accordingly, the outcome of any given matter and the amount or range of potential loss at particular points in time is frequently difficult to ascertain. Uncertainties can include how fact finders will evaluate documentary evidence and the credibility and effectiveness of witness testimony, and how courts will apply the law. Disposition valuations are also subject to the uncertainty of how opposing parties and their counsel may view the evidence and applicable law.

On a quarterly basis, we review relevant information about all pending legal actions and proceedings for the purpose of evaluating and revising our contingencies, accruals and disclosures. We establish an accrual only for matters when a loss is probable and we can reasonably estimate the amount of such loss. We are often unable to estimate the possible losses or ranges of losses, particularly for proceedings that are in their early stages of development, where plaintiffs seek indeterminate or unspecified damages, where there may be novel or unsettled legal questions relevant to the proceedings, or where settlement negotiations have not occurred or progressed. Given the uncertainties involved in any action or proceeding, regardless of whether we have established an accrual, the ultimate resolution of certain of these matters may be material to our operating results for a particular period, depending on, among other factors, the size of the loss or liability imposed and the level of our net income or loss for that period.

In addition to the matters specifically described below, 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. We have also advanced fees and expenses of certain current and former officers and directors in connection with various legal proceedings pursuant to our bylaws and indemnification agreements.

Senior Preferred Stock Purchase Agreements Litigation

A consolidated putative class action ("*In re Fannie Mae/Freddie Mac Senior Preferred Stock Purchase Agreement Class Action Litigations*") and two non-class action lawsuits, *Arrowood Indemnity Company v. Fannie Mae and Fairholme Funds v. FHFA*, filed by Fannie Mae and Freddie Mac shareholders against us, FHFA as our conservator, and Freddie Mac are pending in the U.S. District Court for the District of Columbia. The lawsuits challenge the August 2012 amendment to each company's senior preferred stock purchase agreement with Treasury.

Plaintiffs filed amended complaints in all three lawsuits on November 1, 2017 alleging that the net worth sweep dividend provisions of the senior preferred stock that were implemented pursuant to the August 2012 amendments nullified certain of the shareholders' rights, particularly the right to receive dividends. Plaintiffs seek unspecified damages, equitable and injunctive relief, and costs and expenses, including attorneys' fees. Plaintiffs in the class action seek to represent several classes of preferred and/or common shareholders of Fannie Mae and/or Freddie Mac who held stock as of the public announcement of the August 2012 amendments. On September 28, 2018, the court dismissed all of the plaintiffs' claims except for their claims for breach of an implied covenant of good faith and fair dealing.

On May 21, 2018, a plaintiff in a non-class action case, *Angel v. Federal Home Loan Mortgage Corporation*, filed a complaint for declaratory relief and compensatory damages against Fannie Mae (including certain members of its Board of Directors), Freddie Mac (including certain members of its Board of Directors) and FHFA, as conservator, in the U.S. District Court for the District of Columbia. Plaintiff in that case asserts claims for breach of contract, breach of implied covenants of good faith and fair dealing, and aiding and abetting the federal government in avoiding an alleged implicit guarantee of dividend payments. On March 6, 2019, the court granted defendants' motion to dismiss and on March 18, 2019, plaintiff moved to alter or amend the judgment and to file an amended complaint. On May 24, 2019, the court denied this motion. On June 19, 2019, plaintiff filed a notice of appeal of the court's dismissal and related orders with the U.S. Court of Appeals for the District of Columbia Circuit.

Given the stage of these lawsuits, the substantial and novel legal questions that remain, and our substantial defenses, we are currently unable to estimate the reasonably possible loss or range of loss arising from this litigation.

Unconditional Purchase and Lease Commitments

We have unconditional commitments related to the purchase of loans and mortgage-related securities. These include both on- and off-balance sheet commitments. A portion of these have been recorded as derivatives in our consolidated balance sheets.

We lease certain premises and equipment under agreements that expire at various dates through September 30, 2033. Some of these leases provide for payment by the lessee of property taxes, insurance premiums, cost of maintenance and other costs. Rental expenses for operating leases were $95 million, $100 million and $61 million for the years ended December 31, 2019, 2018 and 2017, respectively.

The following table summarizes by remaining maturity, non-cancelable future commitments related to loan and mortgage purchases, operating leases and other agreements.

	As of December 31, 2019		
	Loans and Mortgage-Related Securities[1]	Operating Leases[2]	Other[3]
	(Dollars in millions)		
2020	$ 74,283	$ 59	$ 109
2021	—	55	40
2022	—	56	6
2023	—	49	—
2024	—	50	—
Thereafter	—	475	—
Total	$ 74,283	$ 744	$ 155

(1) Primarily includes $74.0 billion that has been accounted for as mortgage commitment derivatives.

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

(3) Includes purchase commitments for certain telecommunications services, computer software and services, and other agreements and commitments.

17. Selected Quarterly Financial Information (Unaudited)

The consolidated statements of operations for the quarterly periods in 2019 and 2018 are unaudited and in the opinion of management include all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation of our consolidated statements of operations. Certain prior period amounts have been reclassified to conform to the current period presentation. The operating results for the interim periods are not necessarily indicative of the operating results to be expected for a full year or for other interim periods.

	For the 2019 Quarter Ended			
	March 31	June 30	September 30	December 31
	(Dollars and shares in millions, except per share amounts)			
Interest income:				
Trading securities	$ 427	$ 432	$ 418	$ 350
Available-for-sale securities	53	45	40	37
Mortgage loans	29,768	29,379	28,858	28,759
Federal funds sold and securities purchased under agreements to resell or similar arrangements	263	257	178	145
Other	32	41	47	43
Total interest income	30,543	30,154	29,541	29,334
Interest expense:				
Short-term debt	(125)	(119)	(125)	(132)
Long-term debt	(25,685)	(24,885)	(24,187)	(23,352)
Total interest expense	(25,810)	(25,004)	(24,312)	(23,484)
Net interest income	4,733	5,150	5,229	5,850
Benefit for credit losses	650	1,225	1,857	279
Net interest income after benefit for credit losses	5,383	6,375	7,086	6,129
Investment gains, net	133	461	253	923
Fair value gains (losses), net	(831)	(754)	(713)	84
Fee and other income	227	246	402	301
Non-interest income (loss)	(471)	(47)	(58)	1,308
Administrative expenses:				
Salaries and employee benefits	(386)	(376)	(361)	(363)
Professional services	(225)	(233)	(241)	(268)
Other administrative expenses	(133)	(135)	(147)	(155)
Total administrative expenses	(744)	(744)	(749)	(786)
Foreclosed property expense	(140)	(128)	(96)	(151)
TCCA fees	(593)	(600)	(613)	(626)
Other expenses, net	(408)	(535)	(571)	(644)
Total expenses	(1,885)	(2,007)	(2,029)	(2,207)
Income before federal income taxes	3,027	4,321	4,999	5,230
Provision for federal income taxes	(627)	(889)	(1,036)	(865)
Net income	2,400	3,432	3,963	4,365
Dividends distributed or amounts attributable to senior preferred stock	(2,361)	(3,365)	(3,977)	(4,266)
Net income (loss) attributable to common stockholders	$ 39	$ 67	$ (14)	$ 99
Earnings per share:				
Basic	$ 0.01	$ 0.01	$ 0.00	$ 0.02
Diluted	0.01	0.01	0.00	0.02
Weighted-average common shares outstanding:				
Basic	5,762	5,762	5,762	5,762
Diluted	5,893	5,893	5,762	5,893

	For the 2018 Quarter Ended			
	March 31	June 30	September 30	December 31
	(Dollars and shares in millions, except per share amounts)			
Interest income:				
Trading securities	$ 236	$ 318	$ 363	$ 419
Available-for-sale securities	71	50	54	55
Mortgage loans	28,034	28,307	28,723	29,541
Federal funds sold and securities purchased under agreements to resell or similar arrangements	142	149	166	285
Other	31	33	38	34
Total interest income	28,514	28,857	29,344	30,334
Interest expense:				
Short-term debt	(107)	(110)	(114)	(137)
Long-term debt	(23,175)	(23,370)	(23,861)	(25,224)
Total interest expense	(23,282)	(23,480)	(23,975)	(25,361)
Net interest income	5,232	5,377	5,369	4,973
Benefit for credit losses	217	1,296	716	1,080
Net interest income after benefit for credit losses	5,449	6,673	6,085	6,053
Investment gains, net	250	277	166	259
Fair value gains (losses), net	1,045	229	386	(539)
Fee and other income	320	239	271	149
Non-interest income (loss)	1,615	745	823	(131)
Administrative expenses:				
Salaries and employee benefits	(381)	(365)	(355)	(350)
Professional services	(243)	(254)	(247)	(288)
Other administrative expenses	(126)	(136)	(138)	(176)
Total administrative expenses	(750)	(755)	(740)	(814)
Foreclosed property expense	(162)	(139)	(159)	(157)
TCCA fees	(557)	(565)	(576)	(586)
Other expenses, net	(203)	(366)	(377)	(307)
Total expenses	(1,672)	(1,825)	(1,852)	(1,864)
Income before federal income taxes	5,392	5,593	5,056	4,058
Provision for federal income taxes	(1,131)	(1,136)	(1,045)	(828)
Net income	4,261	4,457	4,011	3,230
Dividends distributed or amounts attributable to senior preferred stock	(938)	(4,459)	(3,975)	(3,241)
Net income (loss) attributable to common stockholders	$ 3,323	$ (2)	$ 36	$ (11)
Earnings per share:				
Basic	$ 0.58	$ 0.00	$ 0.01	$ 0.00
Diluted	0.56	0.00	0.01	0.00
Weighted-average common shares outstanding:				
Basic	5,762	5,762	5,762	5,762
Diluted	5,893	5,762	5,893	5,762

Fannie Mae®

Description of the Registrant's Securities Registered Pursuant to Section 12
of the Securities Exchange Act of 1934.

Section 303(a) of the Fannie Mae Charter Act, which we refer to as the Charter Act, provides that Fannie Mae shall have common stock, without par value. The Charter Act also provides that Fannie Mae may have preferred stock on such terms and conditions as the Board of Directors shall prescribe.

The Charter Act contains no limitation on the amount of common stock that we may issue, and we are currently authorized under our Bylaws to issue 700,000,000 shares of preferred stock, having no par value.

As of December 31, 2019, our issued and outstanding capital stock consists of both common and preferred stock, as follows:

- 1,158,087,567 shares of common stock; and
- 3,000,000 shares of Series D Preferred Stock;
- 3,000,000 shares of Series E Preferred Stock;
- 13,800,000 shares of Series F Preferred Stock;
- 5,750,000 shares of Series G Preferred Stock;
- 8,000,000 shares of Series H Preferred Stock;
- 6,000,000 shares of Series I Preferred Stock;
- 6,900,000 shares of Series L Preferred Stock;
- 9,200,000 shares of Series M Preferred Stock;
- 4,500,000 shares of Series N Preferred Stock;
- 50,000,000 shares of Series O Preferred Stock;
- 24,922 shares of Series 2004-1 Preferred Stock;
- 40,000,000 shares of Series P Preferred Stock;
- 15,000,000 shares of Series Q Preferred Stock;
- 21,200,000 shares of Series R Preferred Stock;
- 280,000,000 shares of Series S Preferred Stock;
- 89,000,000 shares of Series T Preferred Stock.

Description of Common Stock

The following description of our common stock is a summary and does not purport to be complete. This description is qualified in its entirety by, and should be read in conjunction with, the Charter Act and Fannie Mae's Bylaws, which are filed as exhibits to our Annual Report on Form 10-K ("Form 10-K"). As discussed in greater detail in our Bylaws, pursuant to Federal Housing Finance Agency ("FHFA") regulation, Fannie Mae follows the applicable corporate governance practices and procedures of the Delaware General Corporation Law to the extent not inconsistent with the Charter Act and other Federal law, rules, and regulations.

Fully Paid and Non-assessable

All outstanding shares of Fannie Mae common stock are fully paid and non-assessable.

Voting Rights

The holders of shares of common stock are entitled to one vote per share on all matters to be voted on by such holders. Holders of shares of common stock are not entitled to cumulative voting rights.

Note that FHFA, acting as conservator, has suspended the voting rights of our common shareholders during conservatorship.

Dividend Rights

The holders of shares of common stock are entitled to receive such dividends, if any, as may be declared from time to time by our Board of Directors in its discretion out of funds legally available for the payment of dividends.

FHFA, as conservator, announced in September 2008 that we would not pay any dividends on the common stock while we are in conservatorship. In addition, under the terms of the senior preferred stock purchase agreement between us and the U.S. Department of Treasury ("Treasury"), dividends may not be paid on the common stock without the prior written consent of Treasury, regardless of whether we are in conservatorship, see "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements" in Fannie Mae's Annual Report on Form 10-K.

Liquidation Rights

Subject to any preferential rights of any other series of outstanding preferred stock, holders of common stock will share ratably in all assets legally available for distribution to stockholders in the event we are liquidated or wound down pursuant to applicable law.

No Preemptive or Similar Rights

Common stock has no preemptive or other subscription rights, and there are no conversion or exchange rights or redemption or sinking fund provisions with respect to the common stock.

Free Transferability

Our Charter Act provides that the free transferability of the company's stock at all times to any person or entity shall not be restricted, except that, as to Fannie Mae, stock may be transferable only on our books.

Limitation on Rights

The rights of holders of common stock are limited by the rights granted to the holder of our senior preferred stock, see "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements—Senior Preferred Stock" in our Form 10-K.

Listing

Our common stock is quoted on the OTCQB market of OTC Markets Group, Inc. under the trading symbol "FNMA."

Description of Preferred Stock

Fannie Mae has sixteen outstanding series of preferred stock registered pursuant to Section 12 of the Securities Exchange Act of 1934 (collectively, the "Preferred Stock"). The rights of holders of each series of Preferred Stock are set forth in the Certificate of Designation of Terms for such series. The terms of the various series of Preferred Stock are substantially similar to one another, and the following description summarizes the rights applicable to all series of Fannie Mae Preferred Stock, unless otherwise noted.

The following summary description is qualified in its entirety by, and should be read in conjunction with, the Charter Act, Fannie Mae's Bylaws, the applicable Certificate of Designation of Terms for each series of preferred stock. As discussed in greater detail in our Bylaws, pursuant to FHFA regulation, Fannie Mae follows the applicable corporate governance practices and procedures of the Delaware General Corporation Law to the extent not inconsistent with the Charter Act and other Federal law, rules, and regulations.

Fully Paid and Non-assessable

All outstanding shares of Fannie Mae Preferred Stock are fully paid and non-assessable.

Voting Rights

Holders of Fannie Mae Preferred Stock are not entitled to any voting rights, either general or special.

Holders of shares of a series of Preferred Stock are entitled to one vote per share on amendments to the Certificate of Designation of Terms for such series of Preferred Stock, and the consent of the holders of two-thirds of the shares of a series of Preferred Stock is required to effectuate any such amendment.

Dividend Rights

The holders of shares of a series of Preferred Stock are entitled to receive such dividends as are set forth in the applicable Certificate of Designation of Terms as may be declared from time to time by our Board of Directors, in its discretion, out of funds legally available for the payment of dividends. Each series of Preferred Stock provides for quarterly dividends, with the quarterly dividend payment being calculated by applying a dividend rate to the stated value of the Preferred Stock.

All of the outstanding series of Preferred Stock have an equal priority and preference as to dividends. To the extent dividends are declared or set aside on one series of Preferred Stock for a quarterly dividend period, they must be declared or set aside on all series of Preferred Stock on a pro rata basis. Dividends may not be declared and paid on the common stock for a given dividend period unless the dividends for each series of Preferred Stock for such dividend period have been declared and paid in full. However, the Board of Directors may declare or set aside dividends on the Preferred Stock without the declaration and payment of dividends on the common stock.

Dividends on each outstanding series of Preferred Stock are non-cumulative. To the extent a dividend is not declared or set aside for a series of Preferred Stock for a designated quarterly dividend period, then the holder of such series of Preferred Stock will have no claim or right to such dividend payment in the future.

FHFA, as conservator, announced in September 2008 that we would not pay any dividends on the Preferred Stock while we are in conservatorship. In addition, under the terms of the senior preferred stock purchase agreement between us and Treasury, dividends may not be paid on the Preferred Stock without the prior written consent of Treasury, regardless of whether we are in conservatorship, see “Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Treasury Agreements” in our Form 10-K.

The dividend payment terms for each series of Preferred Stock are as follows:

Series	**Dividend Type**	**Stated Value/ Liquidation Preference**	**Dividend Rate**
Series D	Fixed	$50	5.25% per annum
Series E	Fixed	$50	5.10% per annum
Series F	Variable	$50	One-week average yield on 2-year U.S. Treasury Securities at “constant maturity” as published by the Board of Governors of the Federal Reserve System, less 0.16%,
Series G	Variable	$50	One-week average yield on 2-year U.S. Treasury Securities at “constant maturity” as published by the Board of Governors of the Federal Reserve System, less 0.18%
Series H	Fixed	$50	5.81% per annum
Series I	Fixed	$50	5.375% per annum
Series L	Fixed	$50	5.125% per annum
Series M	Fixed	$50	4.75% per annum
Series N	Fixed	$50	5.50% per annum
Series O	Variable	$50	The greater of (i) 7.00% and (ii) the sum of the published one-week average yield on 10-year U.S. Treasury Securities at “constant maturity” as published by the Board of Governors of the Federal Reserve System, plus 2.375%
Series 2004-1	Fixed	$100,000	5.375% per annum
Series P	Variable	$25	The greater of (i) 4.50% and (ii) the sum of 3-month LIBOR plus 0.75%
Series Q	Fixed	$25	6.75% per annum
Series R	Fixed	$25	7.625% per annum
Series S	Variable	$25	The greater of (i) 7.75% and (ii) the sum of 3-month LIBOR plus 4.23%,
Series T	Fixed	$25	8.25% per annum

Liquidation Rights

Subject to the preferential rights of our senior preferred stock, holders of the Preferred Stock will be entitled to receive, out of the assets legally available for distribution to stockholders in the event we are liquidated or wound down pursuant to applicable law, an amount equal to the liquidation preference for

such series of Preferred Stock, plus an amount equal to the dividend (whether or not declared) for the then-current quarterly dividend period.

In the event the assets legally available for distribution to stockholders are insufficient to pay the liquidation preference of all Preferred Stock in full, the assets available for distribution will be divided among all holders of Preferred Stock on a pro rata basis, based on the value of the liquidation preference of each series of Preferred Stock.

The liquidation preference for each series of Preferred Stock is listed in the table above.

No Preemptive or Subscription Rights

The Preferred Stock has no preemptive or other subscription rights.

Exchange or Conversion Rights

The Preferred Stock has no exchange or conversion rights, except for the Series 2004-1 preferred stock.

The Series 2004-1 preferred stock is convertible, at the option of the holder, into shares of Fannie Mae common stock. Each share of Series 2004-1 preferred stock is convertible into 1,060.3 shares of common stock, the equivalent to a conversion price of $94.31 per share of common stock.

Redemption Provisions

The Preferred Stock may generally be redeemed at the option of Fannie Mae, in whole or in part, subject to any restrictions detailed below.

In order to redeem one or more series of Preferred Stock, Fannie Mae must pay the redemption price for such series, plus an amount equal to the dividend (whether or not declared) for the then-current dividend period accrued to the date of redemption.

The redemption price for each series of Preferred Stock is equal to its stated value, except for the Series 2004-1 preferred stock, which has a redemption price of $105,000.

Our Preferred Stock is redeemable at any time, except for three series of Preferred Stock listed below:

Series	Next Redemption Date	Subsequent Redemption Dates
Series F	March 21, 2020	On the second anniversary following the last redemption date.
Series G	September 30, 2020	On the second anniversary following the last redemption date.
Series S	December 31, 2020	On the fifth anniversary following the last redemption date.

The Preferred Stock is not subject to mandatory redemption or sinking fund provisions.

Under the terms of the senior preferred stock purchase agreement between us and Treasury, we may not redeem any Preferred Stock without the prior written consent of Treasury, regardless of whether we are in conservatorship.

Free Transferability

Our Charter Act provides that the free transferability of the company's stock at all times to any person or entity shall not be restricted, except that, as to Fannie Mae, stock may be transferable only on our books.

Limitation on Rights

The rights of holders of Preferred Stock are limited by the rights granted to the holder of our senior preferred stock, see "Business—Conservatorship, Treasury Agreements and Housing Finance Reform—Senior Preferred Stock Purchase Agreement."

Listing

Certain series of our Preferred Stock are quoted on the OTCQB market of OTC Markets Group, Inc. under the following trading symbols:

Series	Trading Symbol
Series E	FNMFM
Series F	FNMAP
Series G	FNMAO
Series H	FNMAM
Series I	FNMAG
Series L	FNMAN
Series M	FNMAL
Series N	FNMAK
Series O	FNMFN
Series 2004-1	FNMFO
Series P	FNMAH
Series Q	FNMAI
Series R	FNMAJ
Series S	FNMAS
Series T	FNMAT

Exhibit 31.1

CERTIFICATION

PURSUANT TO SECURITIES EXCHANGE ACT RULE 13a-14(a)

I, Hugh R. Frater, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of Fannie Mae (formally, the Federal National Mortgage Association);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

/s/ Hugh R. Frater
Hugh R. Frater
Chief Executive Officer

Date: February 13, 2020

Exhibit 31.2

CERTIFICATION

PURSUANT TO SECURITIES EXCHANGE ACT RULE 13a-14(a)

I, Celeste M. Brown, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2019 of Fannie Mae (formally, the Federal National Mortgage Association);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ Celeste M. Brown

Celeste M. Brown
Executive Vice President and
Chief Financial Officer

Date: February 13, 2020

Exhibit 32.1

CERTIFICATION

In connection with the Annual Report on Form 10-K of Fannie Mae (formally, the Federal National Mortgage Association) for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Hugh R. Frater, Chief Executive Officer of Fannie Mae, certify, pursuant to 18 U.S.C. Section 1350, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Fannie Mae.

/s/ Hugh R. Frater
Hugh R. Frater
Chief Executive Officer

Date: February 13, 2020

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION

In connection with the Annual Report on Form 10-K of Fannie Mae (formally, the Federal National Mortgage Association) for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Celeste M. Brown, Executive Vice President and Chief Financial Officer of Fannie Mae, certify, pursuant to 18 U.S.C. Section 1350, that to my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Fannie Mae.

/s/ Celeste M. Brown
Celeste M. Brown
Executive Vice President and
Chief Financial Officer

Date: February 13, 2020

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 99.1

THIRD AMENDED AND RESTATED

LIMITED LIABILITY COMPANY AGREEMENT

OF

COMMON SECURITIZATION SOLUTIONS, LLC

Dated as of January 9, 2020

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THIRD AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT OF COMMON SECURITIZATION SOLUTIONS, LLC

This THIRD AMENDED AND RESTATED LIMITED LIABILITY COMPANY AGREEMENT (this "Agreement") is made and entered into as of January 9, 2020, by and among the Federal National Mortgage Association, a government-sponsored enterprise chartered by Congress having its principal place of business at 1100 15th Street, NW, Washington, DC 20005 ("Fannie Mae"), the Federal Home Loan Mortgage Corporation, a government-sponsored enterprise chartered by Congress having its principal place of business at 8200 Jones Branch Drive, McLean, Virginia 22102 ("Freddie Mac"), and Common Securitization Solutions, LLC, a Delaware limited liability company having its principal place of business at 7501 Wisconsin Avenue, Suite 300, Bethesda, Maryland 20814 (the "Company" or "CSS"). (Fannie Mae and Freddie Mac each may be referred to herein individually as an "Enterprise" or a "GSE" and, collectively, as the "Enterprises or the "GSEs.")

WITNESSETH:

WHEREAS, each of the Enterprises is currently engaged in various aspects of the mortgage securitization business, including purchasing certain residential mortgage loans, transferring loans to securitized loan pools, acting as a trustee of securitized pools of loans, and engaging in practices intended to manage and mitigate risks associated with owning and/or guaranteeing mortgage loans, such as working out and foreclosing on defaulted loans, negotiating modifications to existing loans, and owning and managing real-estate-owned assets resulting from realizing on defaulted loans;

WHEREAS, the Federal Housing Finance Agency ("FHFA") has been appointed as the conservator of the Enterprises pursuant to Section 1367(a) of the Federal Housing Enterprises Financial Safety and Soundness Act of 1992, as amended (the "Safety and Soundness Act");

WHEREAS, in its capacity as conservator, FHFA succeeds to all rights, titles, powers, and privileges of each Enterprise and of its stockholders, officers, or directors with respect to the Enterprise and its assets;

WHEREAS, by directive dated March 12, 2013 (the "Initial Directive"), FHFA, in its capacity as conservator, directed Fannie Mae and Freddie Mac to begin meeting jointly under FHFA's oversight to address issues relating to the establishment of a new securitization platform as described in the February 2012 Strategic Plan for Enterprise Conservatorships (together with any successor strategic plans, the "Strategic Plan");

WHEREAS, by directive dated April 12, 2013 (the "Second Directive"), FHFA, in its capacity as conservator, directed Fannie Mae and Freddie Mac to begin the process and the work necessary to consummate a joint venture agreement between the Enterprises, under FHFA's oversight;

WHEREAS, in furtherance of the Initial Directive, the Second Directive and the Strategic Plan, the Enterprises filed a Certificate of Formation on October 7, 2013 with the Delaware Secretary

of State (the "Certificate") to form the Company to design, build, develop, test, operate, support, maintain, update and enhance the Platform and to provide certain services related thereto;

WHEREAS, the Enterprises have previously entered into a Limited Liability Company Agreement with an effective date of October 7, 2013 (the "Original LLC Agreement"), setting forth certain rights, obligations and understandings with respect to the Company;

WHEREAS, by directive dated October 10, 2013 (the "Third Directive" and together with the Initial Directive and Second Directive, the "Directives"), FHFA directed the Enterprises to complete the formation of the Company as a limited liability company by executing the necessary documents containing the terms of their agreements;

WHEREAS, in furtherance of the Directives and the Strategic Plan, the Enterprises amended and restated the Original LLC Agreement pursuant to that certain Amended and Restated Limited Liability Company Agreement with an effective date of November 3, 2014 (as amended, the "A&R LLC Agreement");

WHEREAS, as of the date hereof, FHFA exercises authority over the Company in FHFA's capacity as regulator and supervisor of the Company, and as conservator of the Enterprises; and

WHEREAS, the Enterprises now desire to amend and restate the A&R LLC Agreement in its entirety as set forth herein.

NOW, THEREFORE, in consideration of the mutual promises herein contained and other valuable consideration, the parties, intending to be legally bound, hereby agree as follows:

ARTICLE I
DEFINITIONS

1.1 Definitions. For purposes of this Agreement, the following capitalized terms have the meanings ascribed to them in this Section 1.1:

"A&R LLC Agreement" has the meaning set forth in the recitals to this Agreement.

"Act" means the Delaware Limited Liability Company Act, codified in Title 6 of the Delaware Code, Section 18-101 et seq., as amended from time to time.

"Additional Members" has the meaning set forth in Section 3.1(a) of this Agreement.

"Administrative Services Agreement" means each of the administrative services agreements executed concurrently with the A&R LLC Agreement by and between the respective Enterprise and the Company pursuant to which the respective Enterprise provides specified services to the Company.

"Adjusted Capital Account Deficit" means, with respect to any Member, the deficit balance, if any, in such Member's Capital Account as of the end of the relevant fiscal year, after giving effect to the following adjustments:

(a) Credit to such Capital Account any amounts which such Member is obligated to restore or is deemed to be obligated to restore pursuant to the penultimate sentences of Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5); and

(b) Debit to such Capital Account the items described in Regulations Sections 1.704-1(b)(2)(ii)(d)(4), (5) and (6).

The foregoing definition of Adjusted Capital Account Deficit is intended to comply with the provisions of Regulations Section 1.704-1(b)(2)(ii)(d) and shall be interpreted consistently therewith.

"Advancement of Expenses" has the meaning set forth in Section 6.18(a)(iii) of this Agreement.

"Affiliate" means, when used with respect to a Person, any other Person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with such Person; provided, however, that for purposes of this definition FHFA shall not be deemed to be an Affiliate of the Enterprises, and neither Enterprise shall be deemed to be an Affiliate of the other Enterprise.

"Agreement" has the meaning set forth in the preamble to this Agreement.

"Ancillary Agreements" means the Contribution Agreement and the Administrative Services Agreements.

"Annual Plan and Budget" has the meaning set forth in Section 8.1(a).

"Annual Report" has the meaning set forth in Section 4.7(c) of this Agreement.

"Assert" means to bring an action of any nature before any legal, judicial, arbitration, administrative, executive, or other type of body or tribunal that has authority to adjudicate that action in whole or in part.

"Assigned Employee" has the meaning set forth in Section 9.1(a) of this Agreement.

"Assigned Employees IP" has the meaning set forth in Section 9.1(f) of this Agreement.

"Bankruptcy Code" means the United States Bankruptcy Code, codified in Title 11 of the United States Code, as amended.

"Board" has the meaning set forth in Section 6.1(a) of this Agreement.

"Board Chair" has the meaning set forth in Section 6.1(a)(ii).

"Business" means the design, development, build, testing, operation, support, maintenance, updating and enhancement of the Platform subject to the provisions of the Charter and the provisions of this Agreement, and such other activities as may be approved from time to time in accordance with the terms and conditions of this Agreement.

"Business Day" means any day that is not a Saturday, Sunday, U.S. federal government holiday, or a day on which national banks with their principal place of business in the District of Columbia are authorized or obligated by law or executive order to be closed.

"Business Plan" has the meaning set forth in Section 8.1(a) of this Agreement.

"Capital Account" means, with respect to any Member, the Capital Account maintained for such Member in accordance with the following provisions:

(a) To each Member's Capital Account there shall be credited the initial Gross Asset Value of such Member's Capital Contributions, such Member's distributive share of Profits and any items in the nature of income or gain which are specially allocated pursuant to Section 4.3 hereof, and the amount of any Company liabilities assumed by such Member or which are secured by any Company Property distributed to such Member.

(b) To each Member's Capital Account there shall be debited the amount of cash and the Gross Asset Value (at the time of distribution) of any Company Property distributed to such Member pursuant to any provision of this Agreement, such Member's distributive share of Losses and any items in the nature of expenses or losses that are specially allocated pursuant to Section 4.3 hereof, and the amount of any liabilities of such Member assumed by the Company or which are secured by any property contributed by such Member to the Company.

(c) In the event any LLC Unit is transferred in accordance with the terms of this Agreement, the transferee shall succeed to the Capital Account of the transferor to the extent it relates to the transferred LLC Unit.

(d) In determining the amount of any liability for purposes of this definition, there shall be taken into account Code Section 752(c) and any other applicable provisions of the Code and Regulations.

The foregoing provisions and the other provisions of this Agreement relating to the maintenance of Capital Accounts are intended to comply with Regulations Section 1.704-1(b), and shall be interpreted and applied in a manner consistent with such Regulations.

"Capital Contribution" means, with respect to any Member, the amount of money and the initial Gross Asset Value of any property contributed to the Company with respect to the interest in the Company held by such Member. The principal amount of a promissory note which is not readily traded on an established securities market and which is contributed to the Company by the maker of the note shall not be included in the Capital Account of any Person until the Company makes a taxable disposition of the note or until (and to the extent) principal payments are made on the note, all in accordance with Regulations Section 1.704-1(b)(2)(iv)(d)(2).

"Certificate" has the meaning set forth in the recitals to this Agreement.

"CEO" has the meaning set forth in Section 6.16(a).

"Charter" means the First Amended and Restated Charter of Common Securitization Solutions, LLC, attached as Exhibit A hereto.

"Claim" has the meaning set forth in Section 14.4 of this Agreement.

"CNTS" has the meaning set forth in Section 12.6(a) of this Agreement.

"Code" means the Internal Revenue Code of 1986, as amended from time to time (or any corresponding provisions of succeeding law).

"Company" has the meaning set forth in the preamble to this Agreement.

"Company Indemnified Parties" means the Company and its officers, directors, employees and agents.

"Company Minimum Gain" means "partnership minimum gain" as described in Regulations Sections 1.704-2(b)(2) and (d).

"Company Property" means all real and personal property acquired by the Company and any improvements thereto, and includes both tangible and intangible property.

"Confidential Information" means all data or information of a Member or the Company (such party, the "Disclosing Party") of a confidential or proprietary nature and disclosed to another Member or the Company, as the case may be (such party, the "Recipient Party"), in connection with this Agreement, any Ancillary Agreement or the Customer Services Agreement, either in writing, orally or any other medium, whether or not identified as being confidential at the time of disclosure by such Disclosing Party to the Recipient Party, whether of a technical, technological, financial, commercial, operational, economic nature or otherwise, or regarding such Disclosing Party's executives or employees, business or prospects, and including but not limited to originals and copies of and memoranda, notes, reports, analyses, compilations, studies or other documents or records to the extent they contain, or otherwise reflect or are generated from such information, whether or not prepared by or on behalf of a Party. Confidential Information also includes any information described above which a Disclosing Party obtains from a third party and treats as proprietary or confidential, whether or not owned or developed by such Disclosing Party, and the terms and conditions of this Agreement. "Confidential Information" shall not include information which the Recipient Party can prove that: (i) prior to the disclosure was already in such Recipient Party's possession without a breach of any confidentiality or non-disclosure obligation owing to another Person; (ii) prior to or subsequent to the disclosure was obtained by such Recipient Party from a third party who is not in violation of any obligation of confidentiality or non-disclosure in making such disclosure; (iii) prior to the disclosure was in the public domain; (iv) subsequent to the disclosure was in the public domain other than by or through a breach of this Agreement by such Recipient Party or its directors, officers, employees, agents, representatives, or others receiving such information by virtue of this Agreement; or (v) was independently developed by such Recipient Party without reference to a Disclosing Party's Confidential Information.

"Conservator" means FHFA in its role as conservator of one or both of the Enterprises or as supervisor of any corresponding LLRE, which role shall continue for purposes of this definition until LLRE Termination.

"Conservatorship" means the period of time during which FHFA is the Conservator or Receiver of both of the Enterprises.

"Contribution Agreement" means the agreement executed concurrently with the A&R LLC Agreement between the Enterprises and the Company pursuant to which the Enterprises made contributions and assignments to the Company.

"Control" (and its correlative terms) means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ownership of voting securities, by contract or otherwise.

"Covered Person" means with respect to a Party: (i) its Affiliates; (ii) customers of such Party or its Affiliates (but only in connection with their otherwise authorized receipt of goods or services from or provision of goods or services to a Party or its Affiliates); (iii) third party contractors retained by such Party or its Affiliates (but only with respect to their performance of services for or on behalf of such Party or its Affiliates in connection with the designing, building, developing, testing, operating, supporting, maintaining, updating, and enhancing of the Platform); and (iv) each of the employees, officers and directors of each of such Party and the foregoing Persons (but only to the extent they are acting in their capacity as employees, officers or directors (as applicable) of such Party or the foregoing Persons).

"Customer Services Agreement" means that certain Customer Services Agreement among Fannie Mae, Freddie Mac and the Company, dated November 21, 2016.

"Damages" has the meaning set forth in Section 14.1(a) of this Agreement.

"Deadlock" has the meaning set forth in Section 6.2(d).

"Deadlock Notice" has the meaning set forth in Section 6.2(d).

"Defense Election" has the meaning set forth in Section 14.4(a) of this Agreement.

"Depreciation" means, for each fiscal year or other period, an amount equal to the depreciation, amortization or other cost recovery deduction allowable with respect to an asset for such year or other period, except that if the Gross Asset Value of an asset differs from its adjusted basis for federal income tax purposes at the beginning of such year or other period, Depreciation shall be an amount which bears the same ratio to such beginning Gross Asset Value as the federal income tax depreciation, amortization or other cost recovery deduction for such year or other period bears to such beginning adjusted tax basis; provided, however, that if the federal income tax depreciation, amortization, or other cost recovery deduction for such year is zero, Depreciation shall be determined with reference to such beginning Gross Asset Value using any reasonable method selected by the Board.

"Directives" has the meaning set forth in the recitals to this Agreement.

"Disclosing Party" has the meaning set forth in the definition of "Confidential Information" in this Section 1.1.

"Dispute" has the meaning set forth in Section 15.1 of this Agreement.

"Downstream Systems" means the Software, hardware, systems and processes (including updates to and replacements of any such items) of each of the Enterprises that interface or interoperate directly or through one or more intermediary systems with the Platform and that receive data or services from the Platform.

"Enterprise" and "Enterprises" have the meanings set forth in the preamble to this Agreement.

"Exploit" means, with respect to any Intellectual Property Rights or Materials, to access, display, execute, reproduce, perform, maintain, support, modify, improve, create derivative works, license, sub-license, distribute, enhance and otherwise use such item or intangible.

"Fannie Mae" has the meaning set forth in the preamble to this Agreement.

"Fannie Mae Indemnified Parties" means Fannie Mae and its officers, directors, employees and agents.

"Fannie Mae Managers" has the meaning set forth in Section 6.1(a)(i) of this Agreement.

"FHFA" has the meaning set forth in the recitals to this Agreement.

"Financial Governance Forum" has the meaning set forth in Section 6.11 of this Agreement.

"Freddie Mac" has the meaning set forth in the preamble to this Agreement.

"Freddie Mac Indemnified Parties" means Freddie Mac and its officers, directors, employees and agents.

"Freddie Mac Managers" has the meaning set forth in Section 6.1(a)(i) of this Agreement.

"Governmental Approvals" means all licenses, consents, permits, decrees, orders, authorizations or other approvals from, all filings and registrations with, and all notices and reports to, any Governmental Authority, including pursuant to or in connection with any contract or agreement between any Member and any Governmental Authority.

"Governmental Authority" means any national, federal, state, regional or local administrative, judicial, legislative, executive, regulatory, police or taxing government or governmental or quasi-governmental authority of any nature, including any agency, branch, bureau, department, official or entity or any court or other tribunal.

"Gross Asset Value" means, with respect to any asset, the asset's adjusted basis for federal income tax purposes, except as follows:

(a) The initial Gross Asset Value of any asset contributed by a Member to the Company shall be the gross fair market value of such asset, as determined pursuant to the Significant Matter approval process provided for in Section 6.4 (except in the case of money in which case the initial Gross Asset Value shall be the amount of such money), provided that the fair market value of assets contributed under the Contribution Agreement shall be as set forth in the Contribution Agreement;

(b) The Gross Asset Values of all Company assets shall be adjusted to equal their respective gross fair market values, as determined by the Board, as of the following times: (i) the acquisition of an additional interest in the Company by any new or existing Member in exchange for more than a de minimis Capital Contribution; (ii) the distribution by the Company to a Member of more than a de minimis amount of Company Property as consideration for an interest in the Company; and (iii) the liquidation of the Company within the meaning of Regulations Section 1.704-1(b)(2)(ii)(g); provided, however, that the adjustments pursuant to sub-clauses (i) and (ii) above shall be made only if the Board reasonably determines that such adjustments are necessary or appropriate to reflect the relative economic interests of the Members in the Company;

(c) The Gross Asset Value of any Company asset distributed to any Member shall be the gross fair market value of such asset on the date of distribution; and

(d) The Gross Asset Values of Company assets shall be increased (or decreased) to reflect any adjustments to the adjusted basis of such assets pursuant to Code Section 734(b) or 743(b), but only to the extent that such adjustments are taken into account in determining Capital Accounts pursuant to Regulations Section 1.704-1(b)(2)(iv)(m); provided, however, that Gross Asset Values shall not be adjusted pursuant to this clause (d) to the extent the Board determines that an adjustment pursuant to clause (b) of this definition is necessary or appropriate in connection with a transaction that would otherwise result in an adjustment pursuant to this clause (d).

If the Gross Asset Value of an asset has been determined or adjusted pursuant to clause (a), (b) or (d) of this definition, such Gross Asset Value shall thereafter be adjusted by the Depreciation taken into account with respect to such asset for purposes of computing Profits and Losses.

"Indemnified Party" means any Company Indemnified Party, Fannie Mae Indemnified Party or Freddie Mac Indemnified Party, as applicable.

"Indemnifying Party" has the meaning set forth in Section 14.4(a) of this Agreement.

"Indemnitee" has the meaning set forth in Section 6.18(a)(i) of this Agreement.

"Initial Directive" has the meaning set forth in the recitals to this Agreement.

"Intellectual Property Rights" means any and all intellectual property rights existing from time to time under any law, statute, rule or regulation of any jurisdiction, including patent law,

copyright law, trade secret law, trademark law (together with all of the goodwill associated therewith) and any and all other proprietary rights, and any and all applications, renewals, extensions and registrations of any of the foregoing, now or hereafter in force and effect worldwide. For purposes of this definition, rights under patent law shall include rights under any and all patent applications and patents (including letters patent and inventor's certificates) anywhere in the world, and including without limitation any and all past, present and future substitutions, extensions, supplementary protection certificates, reissues, renewals, divisions, continuations, continuations in part, continued prosecution applications, requests for continued examination, reexaminations, *inter partes* review proceedings, and post grant review proceedings thereof and other similar filings or stages thereof, and all patents and certificates issuing on the foregoing, provided for under the laws of the United States, or of any other country. For purposes of this definition, rights under copyright law shall include moral rights, where applicable.

"LLC Unit" means a limited liability company unit representing membership interests in the Company.

"LLRE" means a limited-life regulated entity established by FHFA pursuant to the Safety and Soundness Act with respect to an Enterprise.

"LLRE Termination" means the termination of the status as a limited-life regulated entity of any LLRE, as applicable.

"LLRE Transfer" has the meaning set forth in Section 3.1(b) of this Agreement.

"Manager" has the meaning set forth in Section 6.1(a) of this Agreement.

"Material Decision" means, for purposes of Section 6.2(b)(ii) of this Agreement, a decision of the Board that has a material effect on the Company, including:

(a) A material change in the functionality of the Company, such as the addition of a new business line, including multifamily securities or private label securities, or a reduction in the Company's support of the uniform mortgage-backed security;
(b) Capital Contributions beyond those necessary to support the ordinary business operations of the Company;
(c) Appointment or removal of the CEO;
(d) Admission of Additional Members;
(e) Sale or dissolution of the Company or its business.

"Materials" means Software, Technology, reports and drawings, as well as user manuals, charts, graphs and other written documentation, and all other works of authorship.

"Member Minimum Gain" means an amount, with respect to each Member Nonrecourse Debt, equal to the Company Minimum Gain that would result if such Member Nonrecourse Debt were treated as a Nonrecourse Liability, determined in accordance with Regulations Section 1.704-2(i).

"Member Nonrecourse Debt" means "partner nonrecourse debt" as described in Regulations Section 1.704-2(b)(4).

"Member Nonrecourse Deductions" means "partner nonrecourse deductions" as described in Regulations Section 1.704-2(i). The amount of Member Nonrecourse Deductions with respect to a Member Nonrecourse Debt for a fiscal year equals the excess, if any, of the net increase, if any, in the amount of Member Minimum Gain attributable to such Member Nonrecourse Debt during that fiscal year over the aggregate amount of any distributions during that fiscal year to the Member that bears the economic risk of loss for such Member Nonrecourse Debt to the extent such distributions are from the proceeds of such Member Nonrecourse Debt and are allocable to an increase in Member Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Regulations Section 1.704-2(i)(2).

"Members" has the meaning set forth in Section 3.1(a) of this Agreement.

"Multi-Year Plan" has the meaning set forth in Section 8.1(a) of this Agreement.

"Nonpublic Member Data" means Personally Identifiable Information and nonpublic data about any Member or the loans, pools of loans or other financial assets owned or guaranteed by that Member, which Personally Identifiable Information and other data is contributed or provided by the Member, that Member's servicers or an agent or consultant on behalf of the Member or its servicers.

"Nonrecourse Deductions" has the meaning set forth in Regulations Sections 1.704-2(b)(1) and (c). The amount of Nonrecourse Deductions for a fiscal year equals the excess, if any, of the net increase, if any, in the amount of Company Minimum Gain during that fiscal year over the aggregate amount of any distributions during that fiscal year of proceeds of a Nonrecourse Liability that are allocable to an increase in Company Minimum Gain, determined according to the provisions of Regulations Section 1.704-2(c).

"Nonrecourse Liability" has the meaning set forth in Regulations Section 1.752-1(a)(2).

"Notice of Indemnification" has the meaning set forth in Section 14.4(a) of this Agreement.

"Officer" or "Officers" has the meaning set forth in Section 6.16(b) of this Agreement.

"Original LLC Agreement" has the meaning set forth in the recitals to this Agreement.

"Other Permitted Persons" has the meaning set forth in Section 11.1(d) of this Agreement.

"Party" means each Member and the Company, individually, and "Parties" means the Members and the Company, collectively.

"Patent Rights" means all rights under patent law, as described in the definition of Intellectual Property Rights.

“Percentage Interest” means, with respect to any Member of the Company as of any date, the ratio (expressed as a percentage) of the aggregate number of LLC Units held by such Member on such date to the aggregate number of LLC Units outstanding on such date. The combined Percentage Interests of all Members shall at all times equal one hundred percent (100%).

“Permitted Internal Purposes” means (i) in the case of the Enterprises, the right to use Confidential Information of the other Enterprise and the Company, other than Nonpublic Member Data and subject to the limitation set forth in Section 11.1(f), (A) for purposes of designing, developing, building, testing, operating, supporting, maintaining, updating and enhancing the Platform and their respective Upstream Systems and Downstream Systems, (B) in connection with the performance of this Agreement or any Ancillary Agreement, or (C) to exercise and enforce their respective rights under this Agreement or any Ancillary Agreement, and (ii) in the case of the Company, the right to use Confidential Information of any Enterprise (A) for purposes of designing, developing, building, testing, operating, supporting, maintaining, updating and enhancing the Platform, or (B) to exercise and enforce its rights under this Agreement, subject in the case of each of (i) and (ii) to the requirements of Article XI of this Agreement.

“Permitted Recipient Parties” means directors, officers, employees, third party service providers, attorneys and other professional advisors of a Recipient Party whose duties or services to a Party reasonably require them to have access to Confidential Information and who are in each case bound by confidentiality obligations that are at least as protective of such Confidential Information as the terms of Article XI.

“Person” means any individual, corporation, limited liability company, partnership, joint venture, association, joint-stock company, trust, estate, unincorporated organization or Governmental Authority or any other entity whatsoever.

“Personally Identifiable Information” means information that can be used to distinguish or trace an individual’s identity, such as name, home address, telephone number, social security number, or biometric records, alone, or when combined with other personal or identifying information that is linked or linkable to a specific individual, such as date of birth or mother’s maiden name.

“Platform” means the systems, software, processes and infrastructure, referred to in the Charter and to be developed by the Company in furtherance of the Business.

“Pre-Deadlock Notice” has the meaning set forth in Section 6.2(d).

“Proceeding” has the meaning set forth in Section 6.18(a)(i) of this Agreement.

“Profits” and “Losses” means, for each fiscal year or other period, an amount equal to the Company’s taxable income or loss for such year or period, determined in accordance with Code Section 703(a) (for this purpose, all items of income, gain, loss or deduction required to be stated separately pursuant to Code Section 703(a)(1) shall be included in taxable income or loss), with the following adjustments:

(a) Any income of the Company that is exempt from federal income tax and not otherwise taken into account in computing Profits or Losses pursuant to this definition shall be added to such taxable income or loss;

(b) Any expenditures of the Company described in Code Section 705(a)(2)(B) or treated as Code Section 705(a)(2)(B) expenditures pursuant to Regulations Section 1.704-1(b)(2)(iv)(i), and not otherwise taken into account in computing Profits or Losses pursuant to this definition, shall be subtracted from such taxable income or loss;

(c) In the event the Gross Asset Value of any Company asset is adjusted pursuant to clause (b) or (c) of the definition of Gross Asset Value, the amount of such adjustment shall be taken into account as gain or loss from the disposition of such asset for purposes of computing Profits or Losses;

(d) Gain or loss resulting from any disposition of Company Property with respect to which gain or loss is recognized for federal income purposes shall be computed by reference to the Gross Asset Value of the property disposed of, notwithstanding that the adjusted tax basis of such property differs from its Gross Asset Value;

(e) In lieu of the depreciation, amortization and other cost recovery deductions taken into account in computing such taxable income or loss, there shall be taken into account Depreciation for such fiscal year or other period, computed in accordance with the definition of Depreciation; and

Notwithstanding any other provisions of this definition, any items which are specially allocated pursuant to Section 4.3 hereof shall not be taken into account in computing Profits or Losses.

"Receiver" means FHFA in its role as receiver of one or both of the Enterprises or their assets in the event either of the Enterprises is placed into receivership, which role may continue for purposes of this definition past LLRE Termination.

"Recipient Party" has the meaning set forth in the definition of "Confidential Information" in this Section 1.1.

"Regulations" means the Income Tax Regulations, including Temporary Regulations, promulgated under the Code, as such regulations may be amended from time to time (including corresponding provisions of succeeding regulations).

"Regulatory Allocations" has the meaning set forth in Section 4.3(h) of this Agreement.

"Residual Knowledge" means generalized skills, knowledge and experience, including ideas, concepts, know-how and techniques developed or learned as a result of or in connection with a Recipient Party's exposure to Confidential Information and retained in the unaided memories of the individual(s) exposed to the Confidential Information in question.

"Safety and Soundness Act" has the meaning set forth in the recitals of this Agreement.

"Second Directive" has the meaning set forth in the recitals to this Agreement.

"Senior Stock Purchase Agreement" has the meaning set forth in Section 5.3 of this Agreement.

"Significant Matter" has the meaning set forth in Section 6.4 of this Agreement.

"Software" or "software" means any computer programming code consisting of instructions or statements in a form readable by individuals (source code) or machines (object code), and related documentation and supporting materials therefor, in any form or medium, including electronic media. For clarification, Software includes all applications software (*i.e.* software providing business functionality), systems software (*i.e.* software designed to operate the computer hardware and provide a platform for running applications software, including operating systems, utilities, and middleware), and software development tools.

"Source Code" or "source code" means the human readable version of Software, and from which the object code is compiled or otherwise derived, including all comments and procedural code, and all related development documents (*e.g.*, flow charts, schematics, statements of principles of operations, end-user manuals, architecture standards, and any other specifications that are used to create or that comprise the program code of the Software).

"Strategic Plan" has the meaning set forth in the recitals of this Agreement.

"Tax Distribution" has the meaning set forth in Section 5.2(a) of this Agreement.

"Tax Matters Member" has the meaning set forth in Section 4.10 of this Agreement.

"Tax Percentage" has the meaning set forth in Section 5.2(a) of this Agreement.

"Technology" means any and all (i) technology, (ii) technical and engineering materials, (iii) specifications, designs, architectures, and schematics, (iv) Software, documentation, development platforms and development tools, and test environments and testing tools, (v) mask works, layouts, topographies and other design features with respect to integrated circuits, (vi) test scripts, test logs, models, devices, tools, simulators, and design environments, and (vii) prototypes and other tangible embodiments of any of the above, in each case, in any form or media.

"Technology Advisory Subcommittee" has the meaning set forth in 6.12(b) of this Agreement.

"Third Directive" has the meaning set forth in the recitals to this Agreement.

"Transfer" means to directly or indirectly sell, transfer, pledge, assign or other dispose of (or to divest voting control by contract, irrevocable proxy, voting trust or other arrangement) or to become subject to any mortgage, pledge, hypothecation, lien, charge or other encumbrance.

"Transition Period" has the meaning set forth in Section 4.7(a) of this Agreement.

"Upstream Systems" means the Software, hardware, systems and processes (including updates to and replacements of any such items) of each of the Enterprises that interface or interoperate directly or through one or more intermediary systems with the Platform and that provide data or services to the Platform.

1.2 Other Definitional Provisions. All references in this Agreement to a Section, Article, Schedule or Exhibit are to a Section, Article, Schedule or Exhibit, respectively, of or to this Agreement, unless otherwise indicated. The headings of Articles and Sections in this Agreement are provided for convenience only and shall not affect the construction or interpretation of this Agreement. All words used in this Agreement shall be construed to be of such gender or number as the circumstances require. Unless otherwise expressly provided, the words "include," "includes" and "including" shall be construed as if followed by the phrase "without being limited to." Words such as "herein," "hereof," "hereby," "hereunder" and words of similar import refer to this Agreement as a whole and not to any particular Section of this Agreement, unless the context clearly indicates otherwise.

ARTICLE II
OFFICES AND PURPOSES

2.1 Principal Office. The principal office of the Company shall be at 7501 Wisconsin Avenue, Suite 300, Bethesda, Maryland 20814. The principal office of the Company may be changed by the Board in accordance with the terms of this Agreement. The Company may have such other offices, either within or without the State of Delaware, as the Board may designate in accordance with the terms of this Agreement.

2.2 Registered Office and Agent. The registered office of the Company, as required by the Act to be maintained in the State of Delaware, shall be located at 2711 Centerville Road, Suite 400, Wilmington, Delaware 19808 and the original registered agent at such address shall be Corporation Service Company. The registered office and registered agent may be changed from time to time by action by the Board and by the filing of the prescribed forms with and the payment of any prescribed fees to the Delaware Secretary of State.

2.3 Purposes. The purposes of the Company shall be the following:

(a) To conduct the Business in accordance with the Charter, and to take such actions as may be incidental thereto; and

(b) To fulfill such other purposes consistent with the Charter as may be determined from time to time by the Board in accordance with the terms and conditions of this Agreement; provided that, in all cases, all required Government Approvals are obtained from the appropriate Government Authority.

2.4 Fiscal Year. The fiscal year of the Company shall be the calendar year.

ARTICLE III
MEMBERS AND FINANCIAL MATTERS

3.1 Identity of Members.

(a) The members of the Company (the "Members") shall consist of the Enterprises and any additional members ("Additional Members") admitted in accordance with the terms of this Agreement.

(b) Notwithstanding anything to the contrary in this Agreement, in the event any Enterprise is placed into receivership and the LLC Units held by such Enterprise are transferred to a corresponding LLRE ("LLRE Transfer"), effective upon the consummation of the LLRE Transfer, without any further action by any party, such LLRE shall be a Member as the successor-in-interest to the Enterprise and shall be bound by all the rights and obligations of the Enterprise under this Agreement, the Enterprise shall cease to be a Member, and the Company shall continue without dissolution.

3.2 LLC Units; Percentage Interests. The LLC Units and Percentage Interests of the Enterprises are set forth on Schedule 3.2 hereto. Schedule 3.2 shall be amended by the Board, as necessary, upon the admission of Additional Members in accordance with the terms of this Agreement, and to reflect changes in the number of LLC Units issued to, or the Percentage Interests of, any Member.

3.3 Limitation of Liability of Members and Managers. Except as otherwise provided in the Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and no Member or Manager shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a Member or Manager.

3.4 Capital Contributions.

(a) Initial Contributions. The Enterprises have made initial capital contributions to the Company pursuant to the Contribution Agreement. The respective initial contributions of the Enterprises to the Company were of equal value.

(b) Subsequent Contributions. The Members shall make subsequent capital contributions of cash from time to time as set forth in the then current Annual Plan and Budget or as otherwise approved pursuant to the Significant Matters Approval process pursuant to Section 6.4.

3.5 Withdrawals of Capital. Except as otherwise provided in this Agreement, no Member shall have the right to withdraw any part of its Capital Contribution without the unanimous consent of the Board.

3.6 Interest. No interest shall be paid on or on account of any Capital Contributions to the Company or on or on account of any undrawn profit of any Member credited to its account.

3.7 Taxation. It is the intention of the Members that the Company be taxed as a partnership for purposes of the Code and any state income tax law, if allowable under state law.

Accordingly, the Company shall file such forms as may be required to elect to classify the Company as a partnership for federal and state income tax purposes.

ARTICLE IV
ALLOCATIONS

4.1 Profits. After giving effect to the special allocations set forth in Section 4.3 hereof, Profits for any fiscal year shall be allocated in the following order of priority:

(a) First, to the Members, in proportion to and to the extent of the excess, if any, of (i) the cumulative Losses allocated to each Member pursuant to Section 4.2(a)(ii) hereof for all prior fiscal years, over (ii) the cumulative Profits allocated to each Member pursuant to this Section 4.1(a) for all prior fiscal years; and

(b) The balance, if any, to the Members in accordance with their Percentage Interests.

4.2 Losses. After giving effect to the special allocations set forth in Section 4.3 hereof, Losses for any fiscal year shall be allocated as follows:

(a) Losses for any fiscal year shall be allocated in the following order of priority:

(i) First, to the Members in proportion to and to the extent of the excess, if any, of (1) the cumulative Profits allocated to each such Member pursuant to Section 4.1(b) hereof for all prior fiscal years, over (2) the cumulative Losses allocated to such Member pursuant to this Section 4.2(a) for all prior fiscal years; and

(ii) The balance, if any, to the Members in accordance with their Percentage Interests.

(b) The Losses allocated pursuant to Section 4.2(a) hereof shall not exceed the maximum amount of Losses that can be so allocated without causing any Member to have an Adjusted Capital Account Deficit at the end of any fiscal year. In the event some but not all of the Members would have Adjusted Capital Account Deficits as a consequence of an allocation of Losses pursuant to Section 4.2(a) hereof but for this Section 4.2(b), the limitation set forth in this Section 4.2(b) shall be applied on a Member by Member basis so as to allocate the maximum permissible Losses to each Member under Regulations Section 1.704-1(b)(2)(ii)(d).

4.3 Special Allocations. The following special allocations shall be made in the following order:

(a) Minimum Gain Chargeback. Notwithstanding any other provision of this Article IV, if there is a net decrease in Company Minimum Gain during any fiscal year, then, to the extent required by Regulations Section 1.704-2(f), each Member shall be specially allocated items of Company income and gain for such year (and, if necessary, subsequent years) in an amount equal to such Member's share of the net decrease in Company Minimum Gain, determined in accordance with Regulations Section 1.704-2(g)(2). The items to be so allocated shall be determined in

accordance with Regulations Sections 1.704-2(f)(6) and 1.704-2(j). This Section 4.3(a) is intended to comply with the minimum gain chargeback requirement in Regulations Section 1.704-2(f) and shall be interpreted consistently therewith.

(b) Member Minimum Gain Chargeback. Notwithstanding any other provision of this Article IV except Section 4.3(a), if there is a net decrease in Member Minimum Gain attributable to a Member Nonrecourse Debt during any fiscal year, then, to the extent required by Regulations Section 1.704-2(i)(4), each Member who has a share of the Member Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Regulations Section 1.704-2(i)(5), shall be specially allocated items of Company income and gain for such year (and, if necessary, subsequent years) in an amount equal to such Member's share of the net decrease in Member Minimum Gain attributable to such Member Nonrecourse Debt, determined in accordance with Regulations Section 1.704-2(i)(4). The items to be so allocated shall be determined in accordance with Regulations Sections 1.704-2(i)(4) and 1.704-2(j). This Section 4.3(b) is intended to comply with the minimum gain chargeback requirement in Regulations Section 1.704-2(i)(4) and shall be interpreted consistently therewith.

(c) Qualified Income Offset. In the event any Member unexpectedly receives any adjustments, allocations or distributions described in Regulations Sections 1.704-1(b)(2)(ii)(d)(4), (5) or (6), items of Company income and gain (consisting of a pro rata portion of each item of Company income, including gross income, and gain for such year) shall be specially allocated to such Member in an amount and manner sufficient to eliminate, to the extent required by the Regulations, the Adjusted Capital Account Deficit of such Member as quickly as possible, provided that an allocation pursuant to this Section 4.3(c) shall be made if and only to the extent that such Member would have an Adjusted Capital Account Deficit after all other allocations provided for in this Article IV have been tentatively made as if this Section 4.3(c) were not in this Agreement.

(d) Gross Income Allocation. In the event any Member has a deficit Capital Account at the end of any fiscal year that is in excess of the sum of (i) the amount such Member is obligated to restore, and (ii) the amount such Member is deemed to be obligated to restore pursuant to the penultimate sentences of Regulations Sections 1.704-2(g)(1) and 1.704-2(i)(5), such Member shall be specially allocated items of Company income and gain (consisting of a pro rata portion of each item of Company income, including gross income, and gain for such year) in the amount of such excess as quickly as possible, provided that an allocation pursuant to this Section 4.3(d) shall be made if and only to the extent that such Member would have a deficit Capital Account in excess of such sum after all other allocations provided for in this Article IV have been tentatively made as if Section 4.3(c) hereof and this Section 4.3(d) were not in the Agreement.

(e) Nonrecourse Deductions. Nonrecourse Deductions for any fiscal year or other period shall be allocated to the Members in accordance with their Percentage Interests.

(f) Member Nonrecourse Deductions. Any Member Nonrecourse Deductions for any fiscal year or other period shall be specially allocated to the Member who bears the economic risk of loss with respect to the Member Nonrecourse Debt to which such Member Nonrecourse Deductions are attributable in accordance with Regulations Section 1.704-2(i)(1).

(g) Section 754 Adjustment. To the extent an adjustment to the adjusted tax basis of any Company asset pursuant to Code Section 734(b) or 743(b) is required, pursuant to Regulations Section 1.704-1(b)(2)(iv)(m), to be taken into account in determining Capital Accounts, the amount of such adjustment to the Capital Accounts shall be treated as an item of gain (if the adjustment increases the basis of the asset) or loss (if the adjustment decreases such basis), and such gain or loss shall be specially allocated to the Members in a manner consistent with the manner in which their Capital Accounts are required to be adjusted pursuant to such Regulations Section.

(h) Regulatory Allocations. The allocations set forth in Sections 4.3(a)-(g) (the "Regulatory Allocations") are intended to comply with certain requirements of the Regulations under Code Section 704. Notwithstanding any other provisions in this Article IV (other than the Regulatory Allocations), the Regulatory Allocations shall be taken into account in allocating Profits and Losses among Members so that, to the extent possible, the net amount of such allocations of Profits and Losses and other items and the Regulatory Allocations (including Regulatory Allocations that, although not yet made, are expected to be made in the future) to each Member shall be equal to the net amount that would have been allocated to such Member if the Regulatory Allocations had not occurred.

4.4 Other Allocation Rules.

(a) For purposes of determining the Profits, Losses or any other items allocable to any period, Profits, Losses and any such other items shall be determined on a daily, monthly or other basis, as determined by the Board using any permissible method under Code Section 706 and the Regulations thereunder.

(b) Except as otherwise provided in this Agreement, all items of Company income, gain, loss, deduction and any other allocations not otherwise provided for shall be divided among the Members in the same proportions as they share Profits and Losses, as the case may be, for the year.

(c) The Members are aware of the income tax consequences of the allocations made by this Article IV and hereby agree to be bound by the provisions of this Article IV in reporting their shares of Company income and loss for income tax purposes.

(d) Solely for purposes of determining a Member's proportionate share of the "excess nonrecourse liabilities" of the Company within the meaning of Regulations Section 1.752-3(a)(3), the Members' interests in Company profits shall be their Percentage Interests.

4.5 Tax Allocations: Code Section 704(c).

(a) In accordance with Code Section 704(c) and the Regulations thereunder, income, gain, loss and deduction with respect to any property contributed to the capital of the Company, solely for tax purposes, shall be allocated among the Members so as to take account of any variation between the adjusted basis of such property to the Company for federal income tax purposes and its initial Gross Asset Value (computed in accordance with the definition thereof) and using the traditional method as set forth in Regulation Section 1.704-3(b).

(b) In the event the Gross Asset Value of any Company asset is adjusted pursuant to clause (b) of the definition of Gross Asset Value in Article I hereof, subsequent allocations of income, gain, loss and deduction with respect to such asset shall take account of any variation between the adjusted basis of such asset for federal income tax purposes and its Gross Asset Value in the same manner as under Code Section 704(c) and the Regulations thereunder.

(c) Any elections or other decisions relating to such allocations shall be made by the Board in any manner that reasonably reflects the purpose and intention of this Agreement. Allocations pursuant to this Section 4.5 are solely for purposes of federal, state and local taxes and shall not affect, or in any way be taken into account in computing, any Member's Capital Account or share of Profits, Losses, other items or distributions pursuant to any provision of this Agreement.

4.6 Foreign Partner. Each Member represents that it is not a "foreign partner" within the meaning of Section 1446(e) of the Code.

4.7 Accounting and Books of Account.

(a) The accounts, books and records of the Company shall be maintained at the principal office of the Company and shall be open for inspection, copying and audit upon reasonable notice by any of the Members or their duly authorized representatives (at the expense of any such Member) during reasonable business hours. Notwithstanding the foregoing, it is anticipated that during an initial transition period one or both of the Members will provide certain financial and accounting services to the Company (the "Transition Period"). During such period, the books and records of the Company may be located at the offices of one or more of the Members, and, in any event, shall be open to inspection, copying and audit upon reasonable notice by either Member or their duly authorized representatives as described in this Section 4.7(a).

(b) The Company's books shall be closed and balanced at the end of each fiscal year.

(c) The Company shall prepare and deliver to each Manager on the Board (which delivery shall constitute delivery to the Members as well) an annual report within ninety (90) days after the end of each fiscal year (the "Annual Report") and such other periodic reports as requested by the Board. Each Annual Report shall be prepared in accordance with generally accepted accounting principles applied on a consistent basis and, if determined by the Board, each Annual Report may be audited by an independent public accounting firm selected by the Board. The fees and expenses related to any such audit shall be borne by the Company.

4.8 Tax Returns. The Board shall designate an Officer of the Company to have the responsibility for preparing all required federal and state income tax returns, franchise tax reports, sales and use tax returns, property tax reports, transfer taxes and state and local licenses for the Company. The designated Officer shall have the authority to engage an outside accounting firm to prepare federal, state and local filings for a fee. Subject to Section 4.10, such officer shall provide to each Member copies of such income tax returns and related Forms K-1 for their review prior to filing such returns and shall provide final copies of such returns as soon as reasonably practicable, but in no event later than May 31 of the year following the year such income tax return and related

Form K-1 cover. During the Transition Period, the Board may designate one of the Members to perform the functions of the designated Officer specified in this Section 4.8. The fees and expenses related to the preparation and filing of federal, state, and local tax returns shall be borne by the Company. Upon the Company's request, each Member shall provide to the Company any information that the Officer believes may be necessary or appropriate to comply with all of the Company's tax compliance obligations.

4.9 Banking. All funds of the Company shall be deposited in its name in one or more separate accounts with such banks, savings and loan associations, or trust companies as shall be designated by the Board. Funds of Members or other Persons shall not be deposited in such Company accounts. The funds in such accounts shall be used solely for the business of the Company. Withdrawals from, or checks drawn upon, such accounts shall require the signatures of the persons designated by the Board.

4.10 Tax Matters Member. The Board shall designate, and may change the designation of, a tax matters partner (within the meaning of, and solely for purposes of, Section 6231(a)(7) of the Code and Section 301.6231(a)(7)-1 of the Regulations) of the Company (the "Tax Matters Member"). The Tax Matters Member shall not take any action on behalf of the Company without authorization by the Board in accordance with this Agreement, including making any tax election or filing any tax return. Any Member that is not the Tax Matters Member shall have the right to review and approve any tax election or tax return filed on behalf of the Company, and no other written or oral communication other than routine matters shall be sent or made to any governmental authority by the Tax Matters Member unless approved in advance by such other Members. The Tax Matters Member shall provide the other Members with prompt notice of any meeting or conference involving the Tax Matters Member or any representative of the Company with any Governmental Authority involving any tax issue relating to the Company, or any other administrative or judicial proceeding relating to any determination of any tax issue relating to the Company, and such other Members shall have the right to attend and participate in any such meeting, conference, or administrative or judicial proceeding. Upon the Company's request, each Member shall provide to the Company any information that the Tax Matters Member believes may be necessary or appropriate to resolve any tax issue relating to the Company.

ARTICLE V
DISTRIBUTIONS

5.1 Distributions Generally. Subject to any required Governmental Approval, the Company shall make distributions to the Members from time to time in such amount as shall be determined pursuant to the Significant Matter approval process provided for in Section 6.4. All distributions shall be made to the Members in accordance with their Percentage Interests.

5.2 Tax Distributions.

(a) General. Notwithstanding Section 5.1 or Section 6.4, to the extent funds of the Company may be available for distributions, at least five (5) days prior to the due date of quarterly federal estimated tax payments, the Board shall cause the Company to distribute to the Members with respect to each such quarter of the Company an amount of cash (a "Tax Distribution") that, in

the good faith judgment of the Board, equals the Tax Percentage of the taxable income of the Company for such quarter, with such Tax Distributions to be made to the Members in the same proportions that Profits of the Company are or would be allocated to the Members during such quarter. The "Tax Percentage" shall be the highest combined marginal federal and state income tax rates applicable to any Member as of the time of a Tax Distribution. The Tax Percentage shall apply to all Members.

(b) Limitations. Any distributions required to be made to a Member under Section 5.2(a) with respect to any quarter shall be reduced by the amount of any distributions the Company shall have made or shall be making to such Member in accordance with Section 5.1 or otherwise during the calendar year in which such quarter falls. The Board shall not cause the Company to make any Tax Distribution under Section 5.2(a) if the making of such Tax Distribution would constitute a violation of the Act or any contract under which the Company or a subsidiary of the Company is bound relating to or entered in connection with indebtedness of the Company. Any Tax Distributions that are not made by reason of the preceding sentence shall be made as soon as reasonably practicable after the conditions set forth in the previous sentence are no longer applicable.

(c) Offset. Tax Distributions made to a Member under Section 5.2(a) shall be credited against amounts such Member would otherwise be entitled to receive pursuant to Section 5.1.

5.3 Dissolution. If the Company is dissolved, upon the winding up of the affairs of the Company, the assets of the Company shall be distributed in accordance with the Act, except to the extent that U.S. federal law or the Senior Preferred Stock Purchase Agreements entered into by the Enterprises and the U.S. Department of the Treasury dated as of September 26, 2008, applies, in each case, as the same may be amended from time to time (each a "Senior Stock Purchase Agreement"). For the avoidance of doubt, any distributions to Members in connection with a dissolution of the Company shall be made in accordance with the positive Capital Account balances of such Members in a manner consistent with Treasury Regulation Section 1.704-1(b)(2)(ii)(b)(2).

ARTICLE VI
MANAGEMENT

6.1 Composition of the Board.

(a) Composition. The Board of Managers (the "Board") shall consist of at least six managers (each a "Manager"), who shall be designated as provided in this Section 6.1(a) and who shall have the voting rights specified in Section 6.2(c):

(i) At all times Fannie Mae shall designate two managers to serve on the Board (the "Fannie Mae Managers") and Freddie Mac shall designate two managers to serve on the Board (the "Freddie Mac Managers").

(ii) The Chief Executive Officer, designated in accordance with Section 6.16(a), shall be a Manager.

(iii) The Company shall have a Chairman of the Board ("Board Chair"), who shall be a Manager and preside at all meetings of the Board. The Board Chair shall not be a director, officer, or employee of Fannie Mae or Freddie Mac, or an officer or employee of the Company. During the Conservatorship, the Board Chair shall be designated and may be removed by FHFA in its sole discretion. Following the Conservatorship, the Board Chair shall be designated and may be removed by the Board; provided that the Board Chair shall not vote with respect to his or her removal. The Board Chair shall perform such duties as are commonly incident to his or her office and shall also perform such other duties and have such other powers as the Board, and during the Conservatorship, FHFA, shall designate. During the Conservatorship, the Board Chair's compensation shall be determined by FHFA, and unless otherwise directed by FHFA, the Company shall include the expense for such compensation in the Company's Annual Plan and Budget.

(iv) During the Conservatorship, FHFA may appoint up to four additional Managers, who shall not be directors, officers, or employees of Fannie Mae or Freddie Mac, or officers or employees of the Company, one of whom shall be designated as Board Chair as described in Section 6.1(a)(iii) above. Following the Conservatorship, any such Manager may be appointed or removed by the Board, provided that such Manager shall not vote with respect to his or her removal. During the Conservatorship, any such Manager's compensation shall be determined by FHFA, and unless otherwise directed by FHFA, the Company shall include the expense for such compensation in the Company's Annual Plan and Budget.

(b) Removal. Each Manager may be removed only by the person that has authority to designate such Manager, provided that FHFA may remove any Manager in the exercise of FHFA's authority as Conservator.

(c) Upon termination of the Conservatorship, and for as long as FHFA is acting as Receiver of an Enterprise, FHFA shall have the right to appoint one Manager (the "FHFA Manager"), who shall not be a director, officer, or employee of Fannie Mae or Freddie Mac, or an officer or employee of the Company. For clarification, the FHFA Manager will be a new Manager added to the Board and not a replacement for any of the then current Managers. The Manager appointed by FHFA hereunder shall cease to be a Manager at such time as FHFA ceases to act as Receiver of an Enterprise

6.2 Authority of the Board of Managers; Voting.

(a) Authority. Subject to delegation in accordance with Section 6.17 the business and affairs of the Company shall be managed by the Board. Subject to the provisions of Section 6.2(d) and Section 6.4, the Board shall have full and complete discretion to manage and control the business and affairs of the Company, to make all decisions affecting the business and affairs of the Company, and to take all such actions as it deems necessary or appropriate to accomplish the purposes of the Company set forth in the Charter; provided, that the Board shall manage the Company in accordance with the Annual Plan and Budget, and, to the extent that it does not conflict with the Annual Plan and Budget, the current Multi-Year Plan adopted by the Board.

(b) Required Vote.

(i) Subject to paragraph (ii) below, all decisions of the Board shall require the affirmative vote of a majority of the voting power represented at the meeting, during the Conservatorship, and the affirmative vote of the Board Chair, and, upon termination of the Conservatorship and for as long as FHFA is acting as Receiver of an Enterprise, of the FHFA Manager, if any.

(ii) After termination of the Conservatorship, a Material Decision requires the affirmative vote of a majority of the voting power represented at the meeting and of at least one Fannie Mae Manager and at least one Freddie Mac Manager, and for as long as FHFA is acting as Receiver of an Enterprise, of the FHFA Manager, if any.

(c) Voting Rights. The voting power of the Board shall be allocated as follows:

(i) Each of the Fannie Mae Managers shall cast one vote; and

(ii) Each of the Freddie Mac Managers shall cast one vote; and

(iii) Each other Manager shall cast one vote.

(d) Deadlock. If a decision is not reached on any matter before the Board in accordance with Section 6.2(b) (a "Deadlock"), then the Company shall maintain the status quo until such time a decision by the Board is reached agree on such matter in accordance with Section 6.2(b). Any Manager may deliver written notice to the other Managers setting forth in reasonable detail the matter giving rise to the disagreement (the "Pre-Deadlock Notice"), and upon receipt of the Pre-Deadlock Notice the Managers will attempt to reach a decision within 10 Business Days. If the Managers are unable to reach a decision within such time period, then during the Conservatorship, each Manager shall have the right to deliver written notice to FHFA that a Deadlock exists (a "Deadlock Notice"). Subject to the provisions of Section 6.4, upon receipt of a Deadlock Notice, FHFA shall have the right, during the Conservatorship, to resolve the Deadlock in its sole and absolute discretion, and the Company shall implement such resolution to the same extent as if approved by the Board. All resolutions of Deadlock by FHFA shall be set forth in a written document signed by an authorized officer of FHFA or pursuant to such other procedures as may be agreed to by the Board and FHFA.

(e) Manager Interests. The fact that one or more Managers may have an interest in any decision, including the fact that one or more Managers has an employment relationship with or an economic interest in an entity that is the subject of the decision, shall not invalidate such decision, which shall be binding upon the Company provided that the interest of any such Manager in the decision, other than through his or her employment relationship with or economic interest in a Member, is disclosed to each other Manager.

6.3 Duties of Managers.

(a) Each Member recognizes and agrees that each Manager who is appointed by a Member and who is not also an officer of the Company is acting exclusively on behalf of the Member he or she represents, that each such Manager may act in his or her sole and absolute

discretion in the manner he or she determines is in the best interests of the Member he or she represents without taking into account the interests of the other Members, that any such acts shall not be deemed "bad faith" for any purposes, and that such Managers shall have no personal liability by reason of serving as a Manager.

(b) Notwithstanding any other provision of this Agreement or any duty otherwise existing at law or in equity, to the fullest extent permitted by law, no Manager shall owe any duties (including fiduciary duties) to the Members.

6.4 Significant Matters. Notwithstanding the foregoing and any other provision contained in this Agreement to the contrary, no action shall be taken with respect to any of the matters enumerated below (each, a "Significant Matter") without the approval of (i) the Board in accordance with Section 6.2 and (ii) during the Conservatorship, and during any period during which FHFA is acting as Receiver of one or both of the Enterprises, FHFA; provided, however, that the approval of the Board in accordance with Section 6.2 alone shall be sufficient to approve Significant Matter in the event that FHFA does not approve or deny the applicable Significant Matter in 10 Business Days from the date written notice is received by FHFA of the Significant Matter to be considered by it. All approvals and denials of Significant Matters by FHFA pursuant to this Section 6.4 shall be set forth in a written document signed by an authorized officer of FHFA or pursuant to such other procedures as may be agreed to by each Enterprise and FHFA:

(a) Any amendments to or actions inconsistent with the Charter;

(b) [Reserved];

(c) Amendment of this Agreement;

(d) The determination of the initial Gross Asset Value of any contributions made by either Member to the Company (excluding for this purpose the initial Gross Asset Value of assets contributed to the Company under the Contribution Agreement, which the Parties agree have the initial Gross Asset Value set forth in the Contribution Agreement);

(e) The declaration or amount of any dividend or distribution (other than Tax Distributions pursuant to Section 5.2(a));

(f) The purchase or other acquisition of a business or entity or the merger or consolidation of the Company with or into another entity;

(g) The sale, lease, exchange, transfer or disposal of all or substantially all of the business or assets of the Company, in any one transaction or a series of related transactions;

(h) A conversion of the Company from a limited liability company into a corporation or other form of entity;

(i) The dissolution of the Company;

(j) The admission of Additional Members, the Transfer of LLC Units by either Enterprise and the issuance of additional LLC Units or membership interests in the Company;

(k) The withdrawal of capital by any Member;

(l) The initiation or settlement of any significant litigation by the Company against a third party where such litigation could impact the interests, relationships or reputation of the Company;

(m) The granting of any exclusive license to, or the assignment of, any Intellectual Property Rights of the Company;

(n) Adoption of the Company's Annual Plan and Budget or the Board approved Multi-Year Plan, any material amendments to the Annual Plan and Budget or approved Multi-Year Plan, aggregate expenditures that exceed the amounts set forth in the Annual Plan and Budget by more than five percent (5%), expenditures that are materially inconsistent with the allocations of expenditures set forth in the Annual Plan and Budget, or incurrence of indebtedness in excess of amounts reflected in the Annual Plan and Budget;

(o) Any matter requiring approval or consultation with the U.S. Department of the Treasury under the Senior Stock Purchase Agreement between an Enterprise and the U.S. Department of the Treasury;

(p) Any action that in the reasonable business judgment of the management of the Company, at the time that the action is to be taken, is likely to cause significant reputational risk to the Company or either Enterprise or result in substantial negative publicity;

(q) The appointment or removal of any Officer of the Company;

(r) Entering into new compensation arrangements with any Officer of the Company or increasing amounts or benefits payable to any Officer of the Company under existing compensation arrangements;

(s) Entry into any contract, agreement or transaction between the Company, on the one hand, and any Enterprise or any Affiliate of any Enterprise, on the other hand, and any material amendment or waiver, or any termination or assignment, thereof, but excluding (i) certain categories of change orders (or portions thereof), statements of work (or portions thereof), amendments and waivers of such contracts, agreements or transactions solely to the extent specifically approved to not be subject to this Section 6.4(s) in accordance with the Significant Matters approval process, and (ii) any contract, agreement or transaction (and any material amendment or waiver thereof) between the Company and a third party to which an Enterprise (or an Affiliate of an Enterprise) is included as a party solely for the purpose of guaranteeing, securing or providing further assurance to the third party of the Company's performance of, or compliance with the terms of, such contract, agreement or transaction; and

(t) Any capital contributions from either of the Enterprises (except as otherwise provided for in the Budget).

For the avoidance of doubt, the Deadlock resolution mechanism set forth in Section 6.2(d) shall apply with respect to the failure of the Board to be able to make a decision upon any Significant Matter in accordance with this Section 6.4; provided, however, that prior to FHFA resolving any Deadlock with respect to a Significant Matter an in-person meeting to discuss the Deadlock shall have occurred among the Chief Executive Officers of each of the Enterprises and the director of FHFA.

6.5 Meetings of the Board of Managers.Meetings of the Board shall be held at least once every two months at the principal office of the Company or at any other place within or without the State of Delaware which may be designated by the written consent of all Managers. Any Manager may call a meeting of the Board by providing notice of such meeting to each other Manager in the following manner: Notice of the date, time and place of such meeting shall be mailed by regular mail to each other Manager at his or her designated address at least six (6) days before the meeting, or sent by overnight courier to each other Manager at his or her designated address at least two (2) days before the meeting (with delivery scheduled to occur no later than the day before the meeting), or given orally by telephone or other means, or by e-mail, facsimile or telecopy, or by any other means comparable to any of the foregoing, to each other Manager at his or her designated address at least twenty-four (24) hours before the meeting. The notice of the meeting shall state the general purpose of the meeting, but other routine business may be conducted at the meeting without such matter being stated in the notice.

(a) Meeting materials shall be distributed by the Company to each Manager of the Board by: (i) for regular bi-monthly meetings, at least five (5) days in advance of the meeting (unless a shorter advance period is approved in advance by the Board Chair); and (ii) for other meetings, as early as practicable in advance of the meeting. Such materials shall be well organized and provide reasonably detailed (but concise) information concerning items on the agenda for the meeting.

(b) During the Conservatorship, the Board shall provide, or shall cause to be provided, to FHFA, written notice of all meetings of the Board, including regular bi-monthly and other meetings, by no later than the later of (i) two (2) weeks prior to the date of the meeting and (ii) the date on which notice is provided to the Managers in accordance with Section 6.5(a) hereof. During the Conservatorship, FHFA shall have the right to have one or more representatives of FHFA attend any meeting of the Board as an observer. Any such FHFA representative shall have no voting rights.

(c) During the Conservatorship, FHFA shall receive a copy of all materials distributed to the entire Board at the same time as such materials are distributed to the Board.

6.6 Quorum. As used herein, the term "Required Quorum Attendee" shall mean one Fannie Mae Manager, one Freddie Mac Manager, the Board Chair, the CEO and, upon termination of the Conservatorship and for as long as FHFA is acting as Receiver of an Enterprise, the FHFA Manager (if any). The presence in person or by proxy of a majority of the Managers, including

each Required Quorum Attendee Member shall constitute a quorum for the transaction of business at a meeting of the Board. No action of the Board shall be valid in the absence of a quorum, except as provided in Section 6.7 hereof. Notwithstanding the foregoing, in the event a Required Quorum Attendee does not attend a meeting of the Board following the delivery of two notices of such meeting in accordance with Section 6.5(a) hereof, the Board Chair may determine, in his or her discretion, to proceed with the meeting following the delivery of the second notice and the meeting shall be deemed to have a quorum irrespective of the absence of such Required Quorum Attendee and any action taken by the Board at such meeting that otherwise complies with the requirements of this Agreement shall be deemed to be a valid action of the Board. After Conservatorship, the Manager who called the meeting may determine to proceed with the meeting on the conditions described in the preceding sentence, in the event that a purpose of the meeting is to consider removal of the Board Chair pursuant to Section 6.1(a)(iii).

6.7 Consent of Absentees and Waiver of Notice. The transactions of any meeting of the Board shall be as valid as though had at a meeting duly held after proper notice and with a quorum if, either before or after the meeting, each Manager not present in person or by proxy signs a written waiver of notice or a consent to the holding of such meeting, or approves the minutes thereof. All such waivers, consents or approvals shall be filed with the books and records of the Company and made a part of the minutes of the meeting. Attendance of a Manager at any meeting of the Board shall constitute a waiver of notice of such meeting, except when a Manager attends for the express purpose of objecting to the transaction of any business because such meeting has not been (or allegedly has not been) duly noticed.

6.8 Written Action Without a Meeting; Telephone Meetings.

(a) Any action required or permitted to be taken at any meeting of the Board may be taken without a meeting, if (a) consent in writing to such action is provided by all Managers, and, in the case of Significant Matters, FHFA (provided, however, that the approval of the Board in accordance with Section 6.2 alone shall be sufficient to approve a Significant Matter in the event that FHFA does not approve or deny the applicable Significant Matter in 10 Business Days from the date written notice is received by FHFA of the Significant Matter to be considered by it), and (b) notice to FHFA in writing of the proposed written action is provided to FHFA simultaneously with the Board. The Company shall use commercially reasonable efforts to provide the Board and FHFA with not less than two (2) Business Days advance written notice of the proposed written action, provided that the failure by the Company to provide such two (2) Business Day advance written notice shall not invalidate any written consent that otherwise complies with the provisions of this Section 6.8(a). Such written consent or consents shall be filed with the minutes of the proceedings of the Board. Action by written consent shall have the same force and effect as a vote of the Managers of the Board.

(b) Managers may participate in any meeting of the Board by means of a conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other at the same time and participation by such means shall constitute presence in person at a meeting.

6.9 Proxies. Each Manager may appear and vote at any meeting of the Board, and may execute waivers of notice, consents, or approvals, through the agency of one or more persons, provided such agents are authorized to so act on behalf of the Manager by the terms of a written proxy which has been executed by such Manager and delivered to the each Manager. The Board Chair shall cause such written proxies to be filed with the books and records of the Company. If a written proxy authorizes an agent to appear and/or to vote at any meeting of the Board, such written proxy must be delivered to the Board Chair, and all Managers shall be notified of such proxy, at least one day in advance of the meeting.

6.10 Protection of Competitively Sensitive Information. The Board shall adopt and comply with policies and procedures to prevent the disclosure of competitively sensitive information of any Member to other Members. The policies and procedures will be consistent with the provisions of Articles XI and XII herein and, for the avoidance of doubt, shall not limit the scope of or otherwise restrict the licenses granted to the Members under Article XII.

6.11 Financial Governance Forum. A Financial Governance Forum ("Financial Governance Forum") has been established by the Company to advise the Board and the CEO with respect to matters relating to the Annual Plan and Budget, the Multi-Year Plan adopted by the Board, and funding requirements of the Company. The Financial Governance Forum will remain in place until such time as the Board determines that the Company has sufficient internal or other resources and does not require the services of the Financial Governance Forum. The Financial Governance Forum shall have no voting or decision-making authority.

(a) Composition and Meetings. The composition of the Financial Governance Forum shall be determined by the Board; provided, however, that Fannie Mae and Freddie Mac shall at all times have the right to designate the same number of representatives to the Financial Governance Forum. Meetings of the Financial Governance Forum shall be held no less than once per month in person or by telephone. The date, time and place of meetings shall be determined by the Company with notice to representatives to the Financial Governance Forum given at least five (5) days in advance of the meeting. The Company shall circulate an agenda for each meeting (which may be contained in the meeting materials) and meeting materials, at least three (3) business days in advance of the meeting, and a summary of the meeting within ten (10) business days after the meeting. The agenda shall contain matters as each representative to the Financial Governance Forum may request be addressed during the meeting within the scope of the Financial Governance Forum's duties. Meeting materials shall be well organized and provide reasonably detailed (but concise) information concerning items on the agenda for the meeting. Either Enterprise, any Manager, or the Company may call an additional meeting of the Financial Governance Forum by request to the Company. The Committee's Chair shall be the Company's CEO.

(b) Duties and Responsibilities. The Financial Governance Forum shall be responsible for monitoring and providing periodic reports to the Board and the CEO regarding the financial condition and overall operational performance of the Company, including:

(i) Monitoring Company expenditures relative to the approved Budget, including expenditures incurred under the Administrative Services Agreement;

(ii) Reviewing reports submitted by the Enterprises pursuant to the Administrative Services Agreement;

(iii) Reviewing the Company's Annual Plan and Budget, Annual Report and other periodic reports prior to submission to the Board;

(iv) Providing recommendations to the Board and the CEO with respect to the funding needs of the Company;

(v) Reporting to the Board and the CEO other material financial issues and risks relating to the Company; and

(vi) Performing such other duties as the Board may determine.

6.12 [Reserved]

6.13 Corporate Functions and Administrative Services Oversight Committee. Until such time as the Board determines otherwise, the Company shall have a Corporate Functions and Administrative Services Oversight Committee, whose purpose shall be to oversee the corporate functions of the Company (as defined in the bylaws of the Corporate Functions and Administrative Services Oversight Committee), to allocate and coordinate the Enterprises' services under their respective Administrative Services Agreements, and to facilitate information sharing and input related to those services. Additionally, this Committee shall work to establish and coordinate corporate services and internal controls that may need to be developed for the effective operation of the Company. This Committee shall operate in accordance with the bylaws attached hereto as Exhibit B as such bylaws may be amended, modified or replaced by the Board.

6.14 Platform Steering Committee. Until such time as the Board determines otherwise, the Company shall have a Platform Steering Committee. This Committee shall operate in accordance with the charter attached hereto as Exhibit C as such charter may be amended, modified, or replaced by the Board.

6.15 Additional Advisory Committees. For the avoidance of doubt, the Board shall have the authority to create additional advisory boards or committees to provide advice and guidance to the Company, the Board and the Officers of the Company.

6.16 Officers.

(a) CEO. The Company shall have a Chief Executive Officer or senior most executive with such other title as the Board determines ("CEO") appointed by the Board to be responsible for the day-to-day operations of the Company and to serve in such capacity until he or she dies, resigns or is removed from office by the Board, with or without cause, provided that the CEO shall not vote with respect to his or her removal. The CEO shall report to the Board. The authority of the CEO shall be limited to matters expressly authorized herein or by the Board pursuant to a duly adopted resolution. The CEO is hereby expressly authorized to (A) implement matters approved by the Board in accordance with Section 6.2, (B) implement Significant Matters approved

pursuant to the Significant Matter approval process contained in Section 6.4 and (C) once the initial Business Plan and Budget are in effect in accordance with Section 8.1, operate the Company in accordance with the Charter, Business Plan and Budget in effect from time to time in accordance with Section 8.1.

(b) Additional Officers. The Board shall have the authority to appoint and remove such additional officers of the Company (each, together with the CEO, an "Officer") as it deems appropriate to carry out the business of the Company.

6.17 Delegation of Authority to Officers. The Board shall have the authority to adopt resolutions providing for delegations of authority to the Officers of the Company.

6.18 Indemnification of Officers and Managers.

(a) Right To Indemnification.

(i) To the fullest extent permitted by law, as the same now exists or may hereafter be amended, each Person (including a Fannie Mae Manager or Freddie Mac Manager, as applicable) who was, is or is threatened to be made a party to or is otherwise involved (including as a witness) in any threatened, pending or completed action, suit, claim or proceeding, whether civil, criminal, administrative or investigative and whether formal or informal (hereafter a "Proceeding"), by reason of the fact that he or she is or was a Manager or Officer or an employee of the Company or he or she is or was serving at the request of the Company (with approval of the Board) as a manager, officer, member, partner, trustee, employee or agent of another limited liability company, corporation, partnership, joint venture, trust, employee benefit plan or other enterprise (hereafter an "Indemnitee"), whether the basis of a Proceeding is an alleged action in an official capacity or in any other capacity while serving as such a manager, officer, member, partner, trustee, employee or agent shall be indemnified and held harmless by the Company against all Damages incurred or suffered by such Indemnitee in connection therewith unless the Indemnitee engaged in willful misconduct, fraud, or knowingly violated a criminal law. The Company shall indemnify any such Indemnitee in connection with a Proceeding (or part thereof) initiated by such Indemnitee only if a proceeding (or part thereof) was authorized or ratified by the Board. The right to indemnification conferred in this Section 6.18(a) shall be a contract right.

(ii) Any indemnification under Section 6.18(a) (unless ordered by a court) shall be made by the Company only as authorized in the specific case upon a determination that the Indemnitee has met the applicable standard of conduct set forth in Section 6.18(a). Such determination shall be made by the Board.

(iii) The right to indemnification conferred in Section 6.18(a) shall include the right to be paid by the Company for the reasonable and documented expenses incurred in defending any Proceeding in advance of its final disposition (hereinafter an "Advancement of Expenses"). An Advancement of Expenses shall be made upon delivery to the Company of an undertaking, by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such Indemnitee is not entitled to be indemnified.

(b) Nonexclusivity Of Rights. The right to indemnification and the Advancement of Expenses conferred in this Section 6.18 shall not be exclusive of any other right that any Person may have or hereafter acquire under any statute, this Agreement, general or specific action of the Board, contract or otherwise.

(c) Indemnitor of First Resort. The Company hereby acknowledges that the Indemnitees may have certain rights to indemnification, advancement of expenses and/or insurance provided by the Enterprises. The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Enterprises to provide any Advancement of Expenses or other indemnification are secondary), and (ii) that it irrevocably waives, relinquishes and releases the Enterprises from any and all claims against the Enterprises for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no Advancement of Expenses or other indemnification on behalf of Indemnitee with respect to any claim for which Indemnitee has sought indemnification from the Company shall affect the foregoing and the Enterprises shall have a right of contribution and/or be subrogated to the extent of such Advancement of Expenses or payment to all of the rights of recovery of Indemnitee against the Company.

(d) Statutory and Regulatory Limitations. The right to indemnification and the Advancement of Expenses conferred in this Section 6.18 is subject to the provisions set forth in 12 U.S.C. 4518(e) and any rules or orders that are promulgated or issued thereunder from time to time.

6.19 Audit. The Board may direct the Company to conduct an audit, which may be conducted by an independent third party, of any service provider retained by the Company, including, without limitation, any Member of the Company in its capacity as a service provider to the Company pursuant to the Administrative Services Agreement or otherwise, with the results of such audit to be provided to the Board.

ARTICLE VII
ACTIONS BY MEMBERS

7.1 No Voting Rights. The Members shall not participate in the management of the Company, and shall have no voting rights under this Agreement or the Act, other than the right to designate their respective representatives, if any, on the Board. The Board shall have the authority to exercise all powers of the Members and Managers under the Act. Notwithstanding the foregoing or any other provision of this Agreement, the rights reserved to FHFA under this Agreement, any Ancillary Agreement or any other agreement entered into by the Company or by the Enterprises in connection with the Company or the Platform shall be exercised by FHFA in its capacity as, and for so long as FHFA is, Conservator of either of the Enterprises. For the avoidance of doubt, nothing in this Section 7.1 is intended to preclude the Enterprises from providing services to the Company pursuant to the Administrative Services Agreement or such other written agreements as may be entered into by the Enterprises and the Company, or pursuant to written delegation by the Board.

ARTICLE VIII
OPERATIONS OF THE COMPANY

8.1 Business Plans; Budget.

(a) The Board shall adopt and approve an annual business plan and budget for the Company (the "Annual Plan and Budget"), which shall be subject to the Significant Matters approval requirements contained in Section 6.4. In addition, the Board shall adopt a business plan and budget for the Company covering three years, which will consist of general milestones and/or additional details, and shall include a financial plan (the "Multi-Year Plan"). At all times, the Annual Plan and Budget, and the Multi-Year Plan approved by the Board, and any proposed modifications thereto, shall be subject to approval, review, amendment and modification by the Board (subject to the Significant Matters approval requirements contained in Section 6.4).

(b) The Board shall manage, and the Officers shall operate, the Company in accordance with the Annual Plan and the Budget, and, to the extent that it does not conflict with the Annual Plan and Budget, the Multi-Year Plan approved by the Board, as these may be modified from time to time in accordance with the terms and conditions of this Agreement.

(c) At least sixty (60) days prior to the beginning of each fiscal year of the Company or at such other time as may be established by the Board, the CEO shall prepare and submit to the Board proposed revisions (including any extensions thereof) to the Annual Plan and Budget and (if applicable) the Multi-Year Plan. The Board shall continue to manage, and the Officers shall continue to operate, the Company consistent with the existing Annual Plan and Budget and, to the extent that it does not conflict with the Annual Plan and Budget, the existing Multi-Year Plan approved by the Board until a revised Annual Plan and Budget and (if applicable) a revised Multi-Year Plan is approved by the Board (subject to the Significant Matters approval requirements contained in Section 6.4).

8.2 Platform. With the continued assistance and support of the Enterprises, the Company shall design, develop, build, test, operate, support, maintain, update and enhance the Platform in accordance with the Charter, the Annual Plan and Budget, the Multi-Year Plan approved by the Board, and the Customer Services Agreement, and shall use commercially reasonable efforts to commence operation of the Platform as soon as practicable.

8.3 Commitment of Business. The Customer Services Agreement sets forth the terms of each Enterprise's commitment of business to the Company.

8.4 Service Agreements. Each Enterprise shall provide certain services to the Company in accordance with the Administrative Services Agreement between such Enterprise and the Company.

8.5 Insurance. The Company shall obtain insurance from insurance companies of recognized standing in such forms and amounts and against such risks as the Board shall determine, naming as a beneficiary thereunder the Company and each Member in proportion to its respective ownership interests in the Company. Without limiting the generality of the foregoing, the Company shall obtain insurance from one or more insurance companies of recognized standing against indemnification obligations the Company may have to any Manager or Officer, and may maintain insurance, at its expense, to protect itself and any Manager, advisory board member, Officer,

employee or agent of the Company or another enterprise against any expense, liability or loss. Further, upon the recommendation of the insurance broker engaged by the Enterprises to review the Company's insurance needs, the Company shall obtain insurance protecting against cyber-security risks that is consistent with insurance coverage maintained by large financial institutions and leading technology service providers handling information and data of similar sensitivity to the types of information and data to be handled by the Company; provided that such coverage is available to the Company at commercially reasonable rates.

8.6 Termination of Conservatorship. In the event FHFA is appointed as Receiver of either Enterprise and the LLC Units held by the Enterprise are transferred to a corresponding LLRE, the Company shall enter into an agreement with FHFA to grant to FHFA, as Receiver for the remaining assets in the Receivership estate, such access to and use of the Platform and the right to obtain from the Company such services, in each case, as are reasonably necessary to permit FHFA to carry out its responsibilities with regard to any assets or obligations remaining in the Receivership pursuant to the Safety and Soundness Act and the regulations of FHFA or any successor agency or entity.

ARTICLE IX
EMPLOYEES

9.1 Assigned Employees.

(a) Specified employees of each Enterprise, as agreed to by the Company (with approval of the Board) and the relevant Enterprise, may be assigned to work on behalf of the Company under the direct or indirect supervision of the respective Enterprise or Company officer or officers, as the case may be, charged with such management responsibilities (each, an "Assigned Employee"). The Financial Governance Forum shall maintain an up-to-date schedule of Assigned Employees which includes (i) the name of each Assigned Employee, (ii) the period in which the Assigned Employee will serve as an Assigned Employee, and (iii) a high level description of the type of work to be performed by the Assigned Employee.

(b) Each Assigned Employee shall be employed by the relevant Enterprise, and shall continue to be eligible to participate in the compensation and benefit plans and programs maintained by that Enterprise for which the employee qualifies under the terms and conditions of such plans and programs.

(c) Each Enterprise shall, on a monthly basis, invoice and bill the Company for those categories of costs and expenses incurred in the preceding calendar month as are agreed between the Enterprise and the Company (subject to Board approval and the Significant Matters approval requirements contained in Section 6.4 to the extent applicable), in connection with the employment of each Assigned Employee employed by the Enterprise. Invoices submitted to the Company by each Enterprise shall reflect expenditures reported in the Enterprise's financial systems of record utilizing project codes specifically assigned to the development of the Platform or other reasonable supporting detail. Invoices shall be submitted to the Company with supporting documentation detailing monthly project hours, work descriptions, and out-of-pocket expenses.

The Company’s payment of such invoices shall be in accordance with the policies and procedures of the Financial Governance Forum.

(d) Each Assigned Employee shall be dedicated to working 100% of his or her time to perform services for the benefit of the Company and shall be subject to supervision by individuals who may or may not be employees of the Enterprise that employs the Assigned Employee. Performance assessments of each Assigned Employee, including compensation decisions within the framework of the applicable Enterprise’s compensation and benefit plans, shall be conducted by the individual who supervises such Assigned Employee or the Board (which individual shall either be another Assigned Employee or an Officer or other employee of the Company), regardless of which Enterprise employs the supervising individual. Assigned Employees remain employed at-will. The Company shall have the right at any time and for any lawful reason to provide notice to the Enterprise that employs an Assigned Employee that the Company desires that the Assigned Employee no longer work on behalf of the Company as an Assigned Employee, in which case, the Assigned Employee’s status as an Assigned Employee shall be terminated immediately or at such later time as may be agreed to by the Company and the Enterprise.

(e) Acts or omissions of Assigned Employees, in their capacity as Assigned Employees performing services on behalf of the Company, shall be deemed to be acts or omissions of the Company (rather than acts or omissions of the Enterprise that employs the Assigned Employee) and, for purposes of the indemnification provisions in Article 14, Assigned Employees shall be treated as Company Indemnified Parties (rather than Fannie Mae Indemnified Parties or Freddie Mac Indemnified Parties) with respect to indemnification claims that relate to their service as Assigned Employees.

(f) All Materials and intellectual property created or conceived by Assigned Employees while performing services on behalf of the Company in their capacity as Assigned Employees (“Assigned Employees IP”) shall be deemed to be "works made for hire" in which the Company owns all Intellectual Property Rights. To the extent that any Assigned Employees IP is not deemed to be a "work made for hire" and the property of the Company by operation of law, each Enterprise hereby irrevocably assigns, transfers and conveys to the Company all Intellectual Property Rights in and to the Assigned Employees IP created or conceived by each Assigned Employee that the Enterprise assigned to the Company, and each Enterprise agrees to promptly execute such documents and take such actions as the Company may reasonably request to perfect the Company’s ownership of such Assigned Employees IP. Each of the Assigned Employees shall be required to execute a confidentiality and invention assignment agreement in favor of the Company with such terms and conditions as shall be approved by the Board.

(g) Certain additional terms and conditions related to the Assigned Employees, including (i) the process for the Enterprises to assign individuals as Assigned Employees, (ii) the personnel policies and practices that will apply to Assigned Employees, (iii) restrictions on the solicitation or transfer to other positions of Assigned Employees, and (iv) indemnification obligations with respect to employment-related claims are attached hereto as Exhibit D and made a part hereof.

9.2 Offers of Employment to Assigned Employees. If approved by the Board, the Company may at any time, in consultation with the Enterprise that employs an Assigned Employee, make an offer of employment with the Company to such Assigned Employee. In any event, following his or her appointment, the CEO shall discuss the status of each Assigned Employee with the Enterprise that employs the Assigned Employee and determine whether the Assigned Employee will be given an offer of employment by the Company, will continue to work as an Assigned Employee devoting all or a portion of his or her time to work on behalf of the Company, or whether the Assigned Employee will otherwise cease to work on matters relating to the Company.

ARTICLE X
COVENANTS OF THE PARTIES

10.1 Non-Competition. The Customer Services Agreement sets forth the terms of each Enterprise's commitment not to compete with the Platform.

10.2 Business Opportunity. The Customer Services Agreement sets forth the terms under which the Enterprises will make available certain business opportunities to the Company.

10.3 Non-Solicitation of Employees. The Enterprises and the Company shall comply with the policies and procedures set forth in Exhibit D (and Section 9.2) relating to the solicitation for employment of Assigned Employees, employees of the Company and employees of the Enterprises who perform services on behalf of the Company pursuant to the Administrative Services Agreements.

ARTICLE XI
CONFIDENTIALITY

11.1 Protection of Confidential Information.

(a) Each Recipient Party covenants and agrees to keep confidential any and all Confidential Information of any Disclosing Party, in accordance with a standard of care that shall be no less than the standard employed to protect its own information of like importance or that of others, but in no event with less than reasonable care consistent with industry practice;

(b) Each Recipient Party covenants and agrees not to print or copy, in whole or in part, any documents or other media containing any Confidential Information without the prior written consent of the Disclosing Party other than (i) copies for its Permitted Recipient Parties, and (ii) for its Permitted Internal Purposes;

(c) Each Recipient Party covenants and agrees not to use any Confidential Information it receives from a Disclosing Party for any purpose other than (i) in connection with or in furtherance of the Business, and (ii) for its Permitted Internal Purposes;

(d) Each Recipient Party covenants and agrees not to disclose, or permit the disclosure of, Confidential Information of a Disclosing Party to any third party except (i) to a Party or the Permitted Recipients of a Party, or (ii) to other persons, on a need to know basis, for the

Permitted Internal Purposes, provided that such other persons are bound by confidentiality obligations that are at least as protective of the Confidential Information as the terms of this Article XI ("Other Permitted Persons"). In the case of disclosures pursuant to clause (ii) of this Section 11.1(d), such disclosure shall be subject to the internal controls that the Recipient Party exercises with respect to its own Confidential Information of like importance;

(e) With respect to Confidential Information obtained by the Disclosing Party from a third party, each Recipient Party covenants and agrees to abide by any use and non-disclosure restrictions imposed by the third party on such Confidential Information to which the Disclosing Party is subject, provided that the Disclosing Party has informed the Recipient Party of such restrictions in writing in advance;

(f) To the extent that any Confidential Information disclosed by an Enterprise to the Company (and to which the other Enterprise has access) is never used to a material degree by the Company, the Enterprise that did not disclose such Confidential Information shall not have any use rights thereto;

(g) The Enterprises shall not use for any purpose whatsoever each other's Confidential Information that is Nonpublic Member Data. For the avoidance of doubt, the term "use" in this Section 11.1(g) shall be construed broadly to include any productive use, including the testing or verification purposes of the Enterprises. Notwithstanding the foregoing, but subject to Section 11.1(h) below, the prohibition in this Section 11.1(g) shall not apply to the testing and verification processes conducted by employees of the Enterprises directly involved in the build, design, development, testing, operation, support or maintenance of the Platform under the direct or indirect supervision of the respective Enterprise or Company officer or officers, as the case may be, charged with such management responsibilities;

(h) The Company shall maintain and comply with the written information security program (including the administrative, technical and physical safeguards set forth therein) approved by the Board. Any changes to the Company's information security program will be subject to Board approval. Any use, access or disclosure of Confidential Information by the Company (including Nonpublic Member Data) shall comply with (i) the terms of this Agreement, (ii) the terms set forth in any other agreement between the Parties and (iii) appropriate policies and controls adopted by the Company, consistent with the approved information security program; and

(i) The provisions of this Article XI shall not apply to Intellectual Property Rights solely to the extent such Intellectual Property Rights are subject to the license rights set forth in Article XII; provided, however, that each Recipient Party shall keep confidential all trade secrets and other Intellectual Property Rights of a Disclosing Party that are of a confidential nature (which shall not include issued patents, registered copyrights of non-confidential works of authorship, and trademarks) with the standard of care specified in Section 11.1(a) and shall disclose such information to third parties only on a need to know basis, provided that such third parties are bound by confidentiality obligations that are at least as protective of the Confidential Information as the Recipient Party would require in similar circumstances with respect to its own information of like importance.

11.2 Permitted Recipient Parties and Other Permitted Persons. Each Recipient Party shall advise any Permitted Recipient Party and Other Permitted Persons to which it discloses Confidential Information of the confidential nature of the Confidential Information and shall require such Permitted Recipient Party and Other Permitted Person to protect the confidentiality of such Confidential Information in accordance with the provisions of this Article XI, provided, that, with respect to each Recipient Party's use of such Confidential Information for its Permitted Internal Purposes, it shall only be required to adhere to its own internal controls, policies and procedures for the confidential treatment of information that is similar in nature and of comparable important to the Confidential Information at issue, which controls shall be consistent with industry practice. Each Recipient Party shall be liable for any breach of any obligation hereunder by any of its Permitted Recipient Parties or Other Permitted Persons and agrees to take all reasonable measures (including but not limited to court proceedings for injunctive relief, if reasonable under the circumstances) to restrain its respective Permitted Recipient Parties or Other Permitted Persons from prohibited or unauthorized disclosure or use of such Confidential Information. Nothing in this Agreement shall prohibit the disclosure by any Recipient Party of Confidential Information to FHFA, in its role as Conservator of the Enterprises or as regulator and supervisor of the Company, or to FHFA's Office of Inspector General, in its oversight capacity of FHFA, and FHFA's employees, agents, attorneys or other professional advisors.

11.3 Disclosure. In the event a Recipient Party receives a court order or other governmental or administrative decree requiring disclosure of Confidential Information of a Disclosing Party, or if a Recipient Party is otherwise legally obligated to disclose the Confidential Information of a Disclosing Party (other than as a result of any directive or other instruction from FHFA), such Recipient Party shall, if it is legally permitted to do so, give the Disclosing Party reasonable written notice prior to such disclosure in order to permit such Disclosing Party, at such Disclosing Party's expense, to seek a protective order or otherwise take steps to prevent the disclosure of such Confidential Information. The Recipient Party shall cooperate with the Disclosing Party in seeking a protective order or other measure to limit the required disclosure of the Disclosing Party's Confidential Information, and release only so much of such Confidential Information as is required by any resulting order, decree or legal obligation.

11.4 Breach. Each Party agrees that in the event of a breach or threatened breach by any Party, including its Permitted Recipient Parties and Other Permitted Persons, of the provisions of this Article XI, the non-breaching Party may not have an adequate remedy in money damages and, accordingly, shall be entitled to seek an injunction against such breach, in addition to any other legal or equitable remedies available to it.

11.5 Residual Knowledge. Each Disclosing Party acknowledges that the Recipient Parties may currently or in the future be developing information internally, or receiving information from other parties, that is similar to the Disclosing Party's Confidential Information. The Parties agree that they also may acquire Residual Knowledge as a result of this Agreement. Any use or disclosure by any Party of Residual Knowledge shall not constitute a breach of this Agreement, provided that such use or disclosure does not violate the patents or copyrights of any other Party hereto. Subject to the foregoing proviso, nothing in this Agreement will prohibit a Recipient Party from using Residual Knowledge to develop or have developed for itself, or otherwise use or disclose, products,

concepts, systems or techniques that are similar to or compete with the products, concepts, systems or techniques contemplated by or embodied in such Confidential Information. The Parties shall have no obligation to limit or restrict the work assignments of their Permitted Recipient Parties as a result of their having had access to any other Party's Confidential Information.

11.6 Breach Notification. The Recipient Party shall promptly notify the Disclosing Party in writing of any unauthorized use or disclosure of, or access to, the Disclosing Party's Confidential Information by or arising through the Recipient Party of which it becomes aware, and take all reasonable steps requested by the Disclosing Party to limit, stop or otherwise prevent such loss or unauthorized use, disclosure or access.

ARTICLE XII
INTELLECTUAL PROPERTY

12.1 Licenses to Enterprises of Intellectual Property Rights.

(a) Except as otherwise agreed to in a written contract approved in accordance with Section 6.4(s), the Company hereby grants to each Enterprise a non-exclusive, non-transferable (except as set forth in Section 17.9), fully-paid, royalty free, perpetual (both during and following the respective Enterprise's Membership in the Company), irrevocable and worldwide license to Exploit all Materials and all Intellectual Property Rights (other than trademarks) that are owned or licensed by the Company while the respective Enterprise is a Member of the Company, which may be used by each Enterprise for any purpose, subject to any restrictions that may be set forth in the Customer Services Agreement. The foregoing license excludes any use rights with respect to third party licensed Materials to the extent the third party licenses do not permit such use rights to be granted; provided, however, that upon written request from an Enterprise, the Company shall use commercially reasonable efforts to obtain a separate license in the name of the Enterprise, which license shall be at that Enterprise's expense (as approved in advance by such Enterprise).

(b) The rights to sublicense and distribute such Materials and Intellectual Property Rights pursuant to Section 12.1(a) shall apply to the extent reasonably necessary or appropriate for each Enterprise to Exploit such Materials and Intellectual Property Rights for the operation of its business; provided, however, that such sublicense or distribution shall not be solely for the purpose of receiving royalties or other licensing revenue from the sublicense or such Materials and Intellectual Property Rights themselves (as opposed to in combination with other aspects of the Enterprise's business) and shall contain confidentiality obligations that are at least as protective of the Company's Confidential Information as the terms of Article XI. Without limiting the generality of the foregoing, the Enterprises may permit third parties providing services to the Enterprises to access such Materials and the Technology embodying such Intellectual Property Rights, provided that such third parties are bound by confidentiality obligations that are at least as protective of the Company's Confidential Information as the terms of Article XI.

(c) In the event of the bankruptcy of the Company pursuant to the Bankruptcy Code and an attendant rejection of this Agreement or any license granted hereunder, the Parties intend that the provisions of Section 365 of the Bankruptcy Code shall apply and the Enterprises shall be entitled to retain all license rights granted in this Agreement and possession of all Materials

and Intellectual Property Rights licensed under this Agreement, and to exercise all rights to obtain possession of Materials and embodiments of Intellectual Property Rights in accordance with this Agreement and any other agreement supplementary hereto, and the Enterprises shall have no obligation to pay any additional fees or payments in connection with the exercise of the license rights granted under this Agreement and use of any such licensed Materials or Intellectual Property Rights.

12.2 Third Party Intellectual Property Rights. As soon as practicable following the date hereof, the management of the Company shall adopt policies and procedures governing the use by the Company of Software and Materials owned by third parties (including open source software), including in connection with the design and development of the Platform.

12.3 Disclosure and Delivery of Intellectual Property Rights and Materials. This Article XII establishes the Enterprises' right to Exploit the Materials and Intellectual Property rights owned or licensed by the Company. To facilitate the exercise of those rights in a manner that does not create unreasonable burdens for the Company, the Members and the Company will agree on a schedule for delivery of Materials and Intellectual Property by the Company to the Enterprises, which schedule may be updated by written agreement of both Members and the Company from time to time. The remaining provisions of this Article XII will apply until a schedule is agreed upon by the parties and will serve as default requirements in case any schedule agreed upon by the parties expires without a replacement having been agreed upon. Within thirty (30) days after the end of each calendar quarter, the Company will provide to each Enterprise (unless such Enterprise notifies the Company that it elects to defer such delivery) a then current (i.e. as of the end of the applicable calendar quarter) listing of all Materials and Intellectual Property Rights owned or licensed by the Company, including a complete listing of all Software and other Materials incorporated in or reasonably necessary to enable the Enterprises to Exploit the Platform. Following receipt of such listing, an Enterprise may request in writing no more than one time per calendar quarter that the Company provide to the Enterprise, and the Company shall provide to such Enterprise within five business days after receipt of the request, current copies of any Materials or Intellectual Property Rights listed therein (or such portion thereof as was requested by such Enterprise) including current copies of object code and Source Code for Software included in the Materials. At the request of an Enterprise, the Company shall also provide a reasonable amount of basic knowledge transfer as is reasonably necessary to permit the Enterprise to Exploit the Platform using appropriately skilled and knowledgeable resources; provided, however, that such obligation of the Company shall not interfere with the priority of the Company's day to day operations and objectives and shall not otherwise create an unreasonable burden on the Company or its employees. If an Enterprise ceases to be a Member of the Company, the Company shall provide a then current (i.e. as of the date it ceases to be a Member of the Company) listing and copies of the foregoing Materials and Intellectual Property Rights to such Enterprise within thirty (30) days after it ceases to be a Member; thereafter, the Company's obligations under this Section 12.3 shall terminate.

12.4 Prosecution of Intellectual Property Rights. The Company shall have the sole authority to prosecute any patents on inventions developed by or for the Company and assigned to it using patent counsel selected by the Board.

12.5 Protection of Company Intellectual Property Rights. The Company shall use commercially reasonable efforts to protect and enforce its Intellectual Property Rights in and to the Platform, and any underlying Software owned by the Company, including by bringing infringement suits against infringers in its reasonable discretion. Should the Company fail to do so, in the reasonable judgment of an Enterprise, the Enterprise shall have the right to bring such matter before the Board. If, after consideration of the Board, the Company declines to bring an infringement action against an infringer, such decision shall be final, and neither Enterprise shall have any further right to raise such matter before the Board or to otherwise object to such decision.

12.6 Covenant Not to Sue.

(a) Each Party covenants that it shall not Assert any Patent Rights owned or controlled by it against (i) the Company or its Covered Persons with respect to their designing, building, developing, testing, operating, supporting, maintaining, updating, enhancing and using the Platform in accordance with this Agreement and the Customer Services Agreement, or (ii) an Enterprise or its Covered Persons with respect to such Enterprise's Exploitation of the Materials and Intellectual Property Rights pursuant to Section 12.1 in accordance with the terms of this Agreement. Each covenant in this Section 12.6 is referred to as a "CNTS." For clarification, a Patent Right is subject to the CNTS only to the extent that it would be infringed in the absence of a license thereunder as a result of the activities described in subparagraphs (i) and (ii) above. The Parties acknowledge and agree that no CNTS in any way narrows the scope of, restricts the application of, or otherwise limits or adversely affects, the licenses granted to the Parties pursuant to Section 12.1 and the Contribution Agreement.

(b) Each CNTS runs with title to any Patent Rights to the extent they are subject to the CNTS and binds any assignee, exclusive licensee, or other individual or entity that acquires any interest in any Patent Rights that are subject to the CNTS, whether or not that individual or entity has actual or constructive knowledge of the CNTS.

(c) The CNTS granted by each Enterprise in favor of the other Enterprise and its Covered Persons shall be effective for so long as both Enterprises remain Members and both CNTS shall terminate when either Enterprise ceases to be a Member, provided, that each CNTS shall continue in perpetuity with respect to all Patent Rights owned or controlled by each grantor Enterprise on or prior to the date on which an Enterprise ceased to be a Member (and including without limitation future patents and patent applications claiming priority to the foregoing). The CNTS granted by each Enterprise in favor of the Company and its Covered Persons shall be effective for so long as such Enterprise remains a Member and shall terminate when it ceases to be a Member, provided, that such CNTS shall continue in perpetuity with respect to all Patent Rights owned or controlled by such grantor Enterprise on or prior to the date on which it ceased to be a Member (and including without limitation future patents and patent applications claiming priority to the foregoing). The CNTS granted by the Company in favor of each Enterprise shall be effective for so long as such Enterprise remains a Member and shall terminate when its ceases to be a Member, provided, that such CNTS shall continue in perpetuity with respect to all Patent Rights owned or controlled by the Company on or prior to the date on which such Enterprise ceased to be a Member

(and including without limitation future patents and patent applications claiming priority to the foregoing).

(d) To effectuate the purpose of Section 12.6 (b) above, if either of the Enterprises intends (x) to transfer or assign (directly, by operation of law, or in connection with a merger, acquisition, or sale of all or substantially all of an Enterprise's assets) ownership of a Patent Right to any third party, or (y) to grant an exclusive license to, or other proprietary interest in, any Patent Right, which Patent Right, the Enterprise knew or reasonably should have known, is subject to the CNTS at the time of the transfer, assignment, or grant, then prior to any such transfer, assignment, or grant, such Enterprise shall secure in writing from the third party (i) the CNTS with respect to such Patent Right to the same extent as it applies at such time to such Enterprise and (ii) a covenant to secure a similar CNTS from any subsequent owner or exclusive licensee of such Patent Right. If for any reason any transferee, assignee, or grantee does not so agree in writing, then, effective immediately prior to that transfer, assignment, or grant, the Enterprise shall be deemed to have granted to the Company an automatically-vested, nonexclusive, irrevocable, perpetual, fully-paid-up, royalty-free, worldwide, transferable, assignable license under such Patent Right to design, build, develop, test, operate, support, maintain, update, enhance and use the Platform in accordance with this Agreement and the Customer Services Agreement.

ARTICLE XIII
TRANSFER OF LLC UNITS

13.1 Prohibition on Transfers by Enterprises. Neither Fannie Mae nor Freddie Mac may Transfer their respective LLC Units, or any portion thereof, without (i) approval as a Significant Matter pursuant to Section 6.4, and (ii) proper receipt of such other Governmental Approvals as may be necessary.

ARTICLE XIV
INDEMNIFICATION

14.1 Indemnification by Fannie Mae.

(a) Subject to the limitations set forth in this Article XIV and to all applicable regulatory requirements and restrictions, Fannie Mae shall defend, indemnify and hold harmless each of the Freddie Mac Indemnified Parties and the Company Indemnified Parties from and against any costs, damages, losses, expenses (including, without limitation, settlements, judgments and reasonable attorneys' fees and costs relating thereto), claims, obligations or liabilities ("Damages") suffered or incurred by any Freddie Mac Indemnified Party or Company Indemnified Party, as the case may be, to the extent such Damages result or arise from:

(i) a breach or inaccuracy of any of the representations or warranties made by Fannie Mae in this Agreement; or

(ii) a breach of any of the covenants or agreements made or to be performed by Fannie Mae pursuant to this Agreement.

(b) Notwithstanding the foregoing, Fannie Mae shall not be required to indemnify or hold any Freddie Mac Indemnified Party or Company Indemnified Party harmless from or against any Damages to the extent that such Damages arise out of or relate to the negligence, willful misconduct or breach of any of its representations, warranties, covenants or agreements herein, in any Ancillary Agreement or in any certificate, agreement, document or instrument delivered pursuant hereto or thereto, by any Freddie Mac Indemnified Party or Company Indemnified Party, as applicable.

14.2 Indemnification by Freddie Mac.

(a) Subject to the limitations set forth in this Article XIV and to all applicable regulatory requirements and restrictions, Freddie Mac shall defend, indemnify and hold harmless each of the Fannie Mae Indemnified Parties and the Company Indemnified Parties from and against any Damages suffered or incurred by any Fannie Mae Indemnified Party or Company Indemnified Party, as the case may be, to the extent such Damages result or arise from:

(i) a breach or inaccuracy of any of the representations or warranties made by Freddie Mac in this Agreement; or

(ii) a breach of any of the covenants or agreements made or to be performed by Freddie Mac pursuant to this Agreement.

(b) Notwithstanding the foregoing, Freddie Mac shall not be required to indemnify or hold any Fannie Mae Indemnified Party or Company Indemnified Party harmless from or against any Damages to the extent that such Damages arise out of or relate to the negligence, willful misconduct or breach of any of its representations, warranties, covenants or agreements herein, in any Ancillary Agreement or in any certificate, agreement, document or instrument delivered pursuant hereto or thereto, by any Fannie Mae Indemnified Party or Company Indemnified Party, as applicable.

14.3 Indemnification by the Company.

(a) Subject to the limitations set forth in this Article XIV and to all applicable regulatory requirements and restrictions, the Company shall defend, indemnify and hold harmless each of the Fannie Mae Indemnified Parties and the Freddie Mac Indemnified Parties from and against any Damages suffered or incurred by any Fannie Mae Indemnified Party or Freddie Mac Indemnified Party, as the case may be, to the extent such Damages result or arise from:

(i) a breach by the Company of any Fannie Mae Assigned Contract (as such term is defined in the Contribution Agreement) or Freddie Mac Assigned Contract (as such term is defined in the Contribution Agreement); or

(ii) a breach by the Company of any contract or other agreement pursuant to which either or both Enterprises agrees to serve as a co-party, guarantor or otherwise for purposes of providing assurance or security to the third-party to such contract or agreement of the Company's performance, provided that the indemnity under this Subparagraph (ii) shall be limited to the

Damages suffered by the applicable Enterprise in its capacity as a co-party, guarantor or otherwise for purposes of providing assurance or security to such third-party.

(b) Notwithstanding the foregoing, the Company shall not be required to indemnify or hold any Freddie Mac Indemnified Party or Fannie Mae Indemnified Party harmless from or against any Damages to the extent that such Damages arise out of or relate to the negligence, willful misconduct or breach of any of its representations, warranties, covenants or agreements herein, in any Ancillary Agreement or in any certificate, agreement, document or instrument delivered pursuant hereto or thereto, by any Freddie Mac Indemnified Party or Fannie Mae Indemnified Party, as applicable.

14.4 Indemnification Procedures. In any case where an Indemnified Party shall seek indemnification under this Agreement for a third party claim, suit or proceeding (a "Claim"), such indemnification shall be conditioned on such Indemnified Party's compliance with the following procedures:

(a) The Indemnified Party will give prompt written notice to the party from whom such indemnification is sought (the "Indemnifying Party") of each Claim for indemnification under this Agreement, specifying to the extent then known the amount and nature of the Claim (a "Notice of Indemnification"). No failure to so notify the Indemnifying Party shall relieve the Indemnifying Party of its obligations under this Agreement except to the extent that Damages are attributable to such failure. Within fifteen (15) days following receipt of a Notice of Indemnification from the Indemnified Party relating to any Claim, the Indemnifying Party will notify the Indemnified Party in writing if the Indemnifying Party elects to assume control of the defense and settlement of that Claim (a "Defense Election").

(b) If the Indemnifying Party delivers a Defense Election relating to any Claim within the required notice period, the Indemnifying Party will be entitled to have sole control over the defense and settlement of such Claim; provided, however, that

(i) the Indemnified Party will be entitled to participate in the defense of such Claim and to employ counsel at its own expense to assist in the handling of such Claim, provided, however, that, if the Indemnified Party cooperates and provides assistance at the request of the Indemnifying Party in connection with the Indemnifying Party's defense, the Indemnified Party shall be entitled to recover from the Indemnifying Party the reasonable costs of providing such assistance;

(ii) before entering into any settlement of such Claim or ceasing to defend against such Claim, the Indemnifying Party will obtain the prior written approval of the Indemnified Party in respect of any compromise or settlement that would impose any penalty, limitation, disclosure obligation, or injunction or other equitable relief upon the Indemnified Party or that does not include the third party's release of the Indemnified Party from all liability relating to such Claim for which the Indemnified Party is entitled to be indemnified; and

(iii) the Indemnifying Party shall inform the Indemnified Party on a regular basis of the status of such Claim and the Indemnifying Party's defense thereof.

(c) Subject to Section 14.4(b), after the Indemnifying Party has delivered a Defense Election relating to any claim in accordance with Section 14.4(a), the Indemnifying Party will not be liable to the Indemnified Party for any legal expenses incurred by such Indemnified Party in connection with the defense of that Claim. In addition, the Indemnifying Party will not be required to indemnify the Indemnified Party for any amount paid or payable by such Indemnified Party in the settlement of any claim for which the Indemnifying Party has delivered a timely Defense Election if such amount was agreed to without the written consent of the Indemnifying Party.

(d) Provided that the Notice of Indemnification is given (unless the failure to provide such Notice of Indemnification does not actually and materially prejudice the interests of the Indemnifying Party), and the Indemnifying Party (i) has not delivered a Defense Election relating to any Claim within the required notice period, or (ii) has delivered a Defense Election relating to a Claim but has not retained counsel within 30 days following the delivery of the Defense Election, then the Indemnified Party shall have the right to defend, contest or otherwise protect against the same, and make any compromise or settlement thereof and recover any related Damages, including any Damages incurred in securing the Indemnified Party’s rights under this Agreement, from the Indemnifying Party.

(e) In the event that the counsel retained by the Indemnifying Party determines that it cannot represent the Indemnifying Party and the Indemnified Party in connection with the defense of any Claim consistent with the applicable rules of professional conduct, the Indemnified Party shall have the right to employ separate counsel and to control its own defense in connection therewith, and the reasonable fees and expenses of such separate counsel shall be paid by the Indemnifying Party.

(f) An Indemnified Party shall, to the extent practicable and reasonably within its control and at the expense of the Indemnifying Party, make commercially reasonable efforts to mitigate any Damages of which it has adequate notice, provided that the Indemnified Party shall not be obligated to act in contravention of applicable law or in contravention of reasonable and customary practices of a prudent person in similar circumstances.

(g) The obligation to indemnify a party’s officers, directors, employees and agents in accordance with this Article XIV may be enforced exclusively by such party and nothing herein shall be construed to grant such officers, directors, employees and agents any individual rights, remedies, obligations or liabilities with respect to the parties to this Agreement.

14.5 Limits on Indemnification.

(a) The parties hereto waive as against each other any claim to consequential, special, exemplary or punitive damages except to the extent consequential, special, exemplary or punitive damages are awarded to a third party against an Indemnified Party in circumstances in which such Indemnified Party is entitled to indemnification hereunder.

(b) Each Indemnified Party shall maintain such insurance coverage with respect to its business as is customary for an entity of the size and nature of such Indemnified Party. Each Indemnified Party shall be obligated in connection with any claim for indemnification under this Article XIV to use commercially reasonable efforts to obtain any insurance proceeds and indemnification payments payable to such Indemnified Party by any third party available with regard to the applicable claim. The amount which the Indemnifying Party is or may be required to pay to any Indemnified Party pursuant to this Article XIV shall be reduced (retroactively, if necessary) by any insurance proceeds, indemnification payments or other amounts actually recovered by or on behalf of the indemnified party in reduction of the related damages. If the Indemnified Party receives the payment required by this Agreement from the Indemnifying Party in respect of Damages and subsequently receives insurance proceeds, indemnification payments or other amounts in respect of such Damages, then such Indemnified Party shall promptly repay to the Indemnifying Party a sum equal to the amount of such insurance proceeds, indemnification payments or other amounts actually received.

14.6 Exclusive Remedy.

(a) The remedies provided in this Article XIV shall be the exclusive remedies of the Parties hereto in connection with any claim or action arising out of any breach by, or inaccuracy of, another Party's (i) representations, (ii) warranties or (iii) covenants and agreements. The provisions of this Article XIV shall apply to claims for indemnification asserted as between the Parties as well as to third-party claims.

(b) Nothing in this Section 14.6 is intended to limit or expand the remedies provided under any Ancillary Agreement for claims arising under those Ancillary Agreements.

ARTICLE XV
DISPUTE RESOLUTION

15.1 Disputes. The Members and the Company shall attempt in good faith to resolve any dispute, controversy or claim between or among them arising out of or relating to this Agreement, including without limitation any dispute over the breach, interpretation or validity thereof (a "Dispute"). Any Member or the Company, as applicable, may request through written notice to all of the other Members and the Company that the Dispute be referred to senior executives of the Members and the Company, as applicable, that are parties to the Dispute who have authority to resolve the Dispute. The senior executives shall attempt to resolve the Dispute by agreement within sixty (60) days of such notice. The senior executives shall take such actions as may be necessary in connection with any discussions relating to any Dispute to prevent the disclosure of competitively sensitive information of one Member or the Company, as applicable, to other Members or the Company, as applicable.

15.2 Legal Proceedings. If any Dispute is not resolved by the senior executives of the Members or the Company, as applicable, that are party to the Dispute within the sixty (60) day period prescribed by Section 15.1, any such Member or the Company may institute legal proceedings in a federal court in the State of Maryland, which shall be the exclusive forum for such Dispute to the fullest extent permitted by applicable law.

15.3 Resolution by Conservator. Notwithstanding the foregoing, at any time during which FHFA is Conservator of both (but not just one) Enterprises, FHFA shall have the authority to resolve any Dispute between the Enterprises and between either or both Enterprises and the Company. While FHFA is Conservator of both (but not just one) Enterprises, FHFA may direct that the Enterprises take such actions and engage in such processes as FHFA shall determine to resolve any Dispute, and the Enterprises shall comply with FHFA's direction.

ARTICLE XVI
NOTICES

Any notice or other communication required or permitted to be given hereunder shall be in writing and shall be (i) personally delivered, (ii) transmitted by an internationally recognized overnight courier service, or (iii) transmitted by electronic mail (with a confirmation copy sent by one of the other methods authorized in this Section or by mailing, postage prepaid), addressed as follows (or such other address as the Parties may designate from time to time in writing):

If to Fannie Mae:

Federal National Mortgage Association
1100 15th Street, NW
Washington, DC 20005
Attn: Executive Vice President, General Counsel & Corporate Secretary
E-Mail: terry_theologides@fanniemae.com

Copies to:

Federal Housing Finance Agency
400 7th Street, SW
Washington, DC 20024
Attn: Deputy Director, Division of Conservatorship
E-Mail: CSS@fhfa.gov

and

Federal National Mortgage Association
1100 15th Street, NW
Washington, DC 20005
Attn: Vice President, Deputy General Counsel & Deputy Corporate Secretary
Email: christine_e_reddy@fanniemae.com

If to Freddie Mac:

Federal Home Loan Mortgage Corporation
8200 Jones Branch Drive
McLean, Virginia 22102

Attn: Ricardo A. Anzaldua
Executive Vice President, General Counsel and Corporate Secretary
E-Mail: ricardo_anzaldua@freddiemac.com

Copies to:

Federal Housing Finance Agency
400 7th Street, SW
Washington, DC 20024
Attn: Deputy Director, Division of Conservatorship
E-Mail: CSS@fhfa.gov

and

Federal Home Loan Mortgage Corporation
8200 Jones Branch Drive
McLean, Virginia 22102
Attn: Melinda L. Reingold
Vice President & Deputy General Counsel - Mortgage Securities
E-Mail: melinda_reingold@freddiemac.com

If to the Company:

Common Securitization Solutions, LLC
7501 Wisconsin Avenue, Suite 300
Bethesda, Maryland 20814
Attn: Chief Executive Officer
Email: tony.renzi@commonsecuritization.com

Copies to:

Common Securitization Solutions, LLC
7501 Wisconsin Avenue, Suite 300
Bethesda, Maryland 20814
Attn: Senior Vice President, Chief Legal and Compliance Officer
Email: carol.rakatansky@commonsecuritization.com

Federal Housing Finance Agency
400 7th Street, SW
Washington, DC 20024
Attn: Deputy Director, Division of Conservatorship
E-Mail: CSS@fhfa.gov

All notices and other communications required or permitted to be given hereunder shall be deemed to have been duly given on the first to occur of: (i) the date of receipt if delivered personally,

(ii) the first Business Day following the day the same is deposited with an internationally recognized courier service if sent by overnight delivery service, or (iii) the date sent (without notice of non-delivery) if sent by electronic mail transmission.

ARTICLE XVII
MISCELLANEOUS

17.1 FHFA Authority.

(a) FHFA's actions pursuant to this Agreement shall be performed in its capacities as Conservator of the Enterprises and as regulator and supervisor of the Company, and any approval, designation, direction or other rights reserved to FHFA under this Agreement shall be exercised by FHFA in those roles.

(b) Notwithstanding the foregoing, nothing in this Agreement is intended to, nor shall, limit in any manner FHFA's authority with respect to the Enterprises and their respective assets (including their LLC Units) as Conservator or Receiver, nor as regulator and supervisor of the Enterprises and the Company.

(c) Notwithstanding any other provision of this Agreement to the contrary, if FHFA is no longer Conservator of either Enterprise, all rights of FHFA in its capacity as Conservator arising exclusively under this Agreement shall cease, but its rights as regulator and supervisor of the Enterprises and the Company shall persist.

17.2 Scope of the Parties' Authority. Unless otherwise provided in this Agreement, no Party shall, without the prior written consent of the other Party, in any manner use the name of, or commit or act or purport to act for or as a representative of, or assume any obligations or responsibilities on behalf of, such other Party, whether before or after the formation of the Company.

17.3 Force Majeure. Should any circumstance beyond the reasonable control of any Member occur which delays or renders impossible the performance of any of its obligations under this Agreement, such obligation shall be postponed for such time as such performance necessarily has had to be suspended or delayed on account thereof; provided such Member shall notify the other Members and the Company in writing within fourteen (14) days after the occurrence of such force majeure. In such event, representatives of each Member, the Company and FHFA shall promptly meet to determine an equitable solution to the effect of any such event, provided that any Member who fails because of force majeure to perform its obligations hereunder or thereunder will upon the cessation of the force majeure take all reasonable steps within its power to resume with the least possible delay compliance with its obligations. Events of force majeure shall include, without limitation, war, revolution, invasion, insurrection, riots, mob violence, sabotage or other civil disorders, acts of God, strikes or other labor disputes, acts, laws, regulations or rules of any government or governmental agency and any other circumstances beyond the reasonable control of the Member, the obligations of which are affected thereby.

17.4 Severability. If any term or provision of this Agreement shall be held or deemed to be, or shall in fact be, invalid, inoperative, illegal or unenforceable as applied to any particular case

in any jurisdiction or jurisdictions, or in all jurisdictions or in all cases, because of the conflicting of any provision with any constitution or statute or rule of public policy or for any other reason, such circumstance shall not have the effect of rendering the provision or provisions in question invalid, inoperative, illegal or unenforceable in any other jurisdiction or in any other case or circumstance or of rendering any other provision or provisions herein contained invalid, inoperative, illegal or unenforceable to the extent that such other provisions are not themselves actually in conflict with such constitution, statute or rule of public policy, but this Agreement shall be narrowly reformed and construed in any such jurisdiction or case as if such invalid, inoperative, illegal or unenforceable provision had never been contained herein and such provision narrowly reformed so that it would be valid, operative and enforceable to the maximum extent permitted in such jurisdiction or in such case.

17.5 Entire Agreement. The terms and conditions herein contained together with the terms and conditions of the Ancillary Agreements, the Customer Services Agreement and the other documents attached as Schedules and Exhibits hereto constitute the entire agreement between the Parties relating to the subject matter of this Agreement and shall supersede all previous communications between the Parties with respect to the subject matter of this Agreement. No Party has entered into this Agreement in reliance upon a representation, warranty or undertaking of the other Party which is not set out or referred to in this Agreement.

17.6 Further Assurances. The Parties hereto shall at any time, and from time to time execute and deliver such additional instruments and other documents and shall at any time, and from time to time take such further actions as may be reasonably necessary or appropriate to effectuate, carry out and comply with all of the terms of this Agreement and the transactions contemplated hereby

17.7 No Third Party Rights. This Agreement shall not be deemed or construed in any way to result in the creation of any rights or obligations in any Person not a party to this Agreement (including, but not limited to, employees or contractors of any Enterprise or the Company), other than FHFA and the third parties entitled to indemnification pursuant to Article XIV.

17.8 Applicable Law. This Agreement and the rights and liabilities of the parties hereto shall be governed by and construed in accordance with applicable U.S. federal laws and the laws of the State of New York applicable to contracts made and to be performed within such jurisdiction and without regard to any conflicts of laws principle that would result in the application of the laws of any other jurisdiction.

17.9 Assignment of Agreement. This Agreement shall be binding upon and inure to the benefit of each Party hereto and its permitted successors and assigns, including with respect to each Enterprise, the corresponding LLRE as contemplated by Section 3.1(b). Subject to Section 3.1(b), no Party hereto shall assign, transfer, or otherwise dispose of (by operation of law or otherwise) any of its rights or obligations under this Agreement in whole or in part to any Person without the prior written consent of the other Parties; provided, however, that in the event any Enterprise is placed into receivership and the LLC Units held by the Enterprise are transferred to a corresponding LLRE, such LLRE shall become a party to this Agreement as successor-in-interest to the Enterprise.

17.10 Waivers. No waiver, forbearance, or failure by any Party of its right to enforce any provision of this Agreement shall constitute a waiver or estoppel of such Party's right to enforce such provision thereafter or to enforce any other provision of this Agreement. No single or partial exercise of any right or power hereunder shall operate as a waiver of such right or of any other right or power. The waiver by any Party of a breach of any provision of this Agreement shall not operate or be construed as a waiver of any other or subsequent breach hereunder. All rights and remedies existing under this Agreement are cumulative with, and not exclusive of, any rights or remedies otherwise available.

17.11 Amendments. No amendment or supplement to this Agreement shall be effective for any purpose unless in writing and signed by an authorized officer of each Party hereto.

17.12 Survival. The provisions of Articles XI, XII, XIV, XV, and XVI of this Agreement shall survive indefinitely.

17.13 Expenses. Each Party shall bear its own costs and expenses incurred in connection with the negotiation, execution and performance of this Agreement and all related agreements referred to herein, except to the extent specifically provided otherwise in this Agreement or in any of those related agreements or as otherwise agreed by the Enterprises.

17.14 Construction. The Enterprises agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any law, regulation, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

17.15 Counterparts. This Agreement may be executed simultaneously in any number of counterparts and each such counterpart shall be deemed to be an original instrument, but all such counterparts together shall constitute one and the same instrument, binding on all of the Parties. Signatures provided by facsimile or electronic copy shall have the same effect as originals.

[Signatures appear on the following page]

IN WITNESS WHEREOF, the parties to this Agreement have executed this Agreement as of the date first above written.

FEDERAL NATIONAL MORTGAGE ASSOCIATION

/s/ David C. Benson
Name: David C. Benson
Title: President

FEDERAL HOME LOAN MORTGAGE CORPORATION

By: /s/ Jerry Weiss
Name: Jerry Weiss
Title: Executive Vice President and Chief Administrative Officer

COMMON SECURITIZATION SOLUTIONS, LLC

By: /s/ Anthony N. Renzi
Name: Anthony N. Renzi
Title: Chief Executive Officer

Schedule 3.2

LLC UNITS AND PERCENTAGE INTERESTS OF THE MEMBERS

Member	LLC Units	Percentage Interest
Federal National Mortgage Association	1000 Units	50%
Federal Home Loan Mortgage Corporation	1000 Units	50%

EXHIBIT A

FIRST AMENDED AND RESTATED
CHARTER OF COMMON SECURITIZATION SOLUTIONS, LLC,
a Delaware limited liability company

as of November 3, 2014

Reference is hereby made to Common Securitization Solutions, LLC, a Delaware limited liability company (the "Company"), formed on the 7th day of October, 2013, by the filing of a Certificate of Formation of the same date in the Office of the Secretary of State of the State of Delaware, by the Federal National Mortgage Association ("Fannie Mae") and the Federal Home Loan Mortgage Corporation ("Freddie Mac") (collectively, the "Enterprises").

WHEREAS, the Company shall be jointly and equally owned by the Enterprises, and has been formed by them and shall have the following purposes:

> To develop, operate, update and maintain the systems, software, processes, infrastructure and business activities necessary or appropriate to facilitate the efficient, large-scale issuance of single-family, residential, mortgage-related securities by both Enterprises and, potentially, other users (including a Single Security, as described in the *Request for Input: Single Security* published by FHFA on August 12, 2014 (including different types of Single Security as described in that document), with any modifications of such Single Security as may be agreed upon between the Enterprises), and the related sale and administration of such securities.

EXHIBIT B

BYLAWS

CORPORATE FUNCTIONS AND ADMINISTRATIVE SERVICES OVERSIGHT COMMITTEE COMMON SECURITIZATION SOLUTIONS, LLC

Reference is hereby made to that certain Third Amended and Restated Limited Liability Company Agreement of Common Securitization Solutions, LLC (the "Company") between the Federal Home Loan Mortgage Corporation ("☐Freddie Mac") and the Federal National Mortgage Association ("Fannie Mae"), and the Company, dated January 9, 2020 (the "LLC Agreement"). Capitalized terms used herein, not defined herein and defined in the LLC Agreement shall have the definitions given to them in the LLC Agreement.

1. Purpose

The Corporate Functions and Administrative Services Oversight Committee's (the "Committee") purpose shall be to (i) oversee the corporate functions of the Company (i.e., operations that are not directly related to the operations of the Common Securitization Platform such as human resources, internal audit, compliance, legal, information security, enterprise risk management, procurement, finance as well as treasury operations, and technology services that support these corporate functions), and (ii) allocate and coordinate the Enterprise's respective services for the Company under the applicable Administrative Services Agreements and facilitate information sharing and input with respect to those services. The Committee may make recommendations concerning corporate functions, including controls that should be established for effective Company operations to the extent applicable, and will serve as an information resource for the Company and the Board of Managers.

2. Composition.

(a) The Committee shall consist of up to fifteen members, with up to five members appointed by each Enterprise and the Company, respectively, provided, however, that each Enterprise and the Company shall be obligated to have appointed no less than two regular members to the Committee at all times. In addition to the membership positions allocated to the Company and each Enterprise, each entity shall be permitted to appoint or include on the Committee a reasonable number of subject area experts to assist its Committee members in discussing, evaluating and reviewing specialized topics or issues. In the event that the Board determines any party has not appointed members of the Committee with sufficient seniority and knowledge, the Board may request that such party appoint additional or different members and the applicable party shall comply. FHFA shall be permitted to designate a representative to participate in meetings of the Committee as an observer.

(b) Each member of the Committee may be removed, with or without cause, by the party that has authority to appoint the member.

(c) The size of the Committee may be modified from time to time at the discretion of the Board. The Committee shall remain in effect until discontinued by the Board.

(d) The Committee Chair shall be the Company's Chief Executive Officer.

3. Meetings of the Committee.

(a) The Committee shall meet no less often than six times per year. The date, time and place of Committee meetings shall be determined by the Committee Chair, which shall be a Company Committee member designated by the Company. At least five (5) days advance notice shall be given of any regularly scheduled meeting of the Committee. The Committee Chair shall publish an agenda for each meeting, which may be contained in the meeting materials, at least three (3) business days in advance of the meeting. The agenda shall contain matters as each Enterprise may request be addressed during the meeting within the scope of the Committee's duties. Meeting materials shall be well organized and provide reasonably detailed (but concise) information concerning items on the agenda for the meeting. The Committee Chair or his/her delegate will circulate a summary of each meeting within ten (10) business days after the meeting.

(b) The Committee Chair may call additional meetings of the Committee by providing notice of the date, time and location of such meeting to each member of the Committee at the address provided by such member to the Committee Chair, as far in advance of the meeting as practicable. FHFA shall be provided notice of all committee meetings simultaneously with the notices sent to the Committee members.

4. Committee Role.

(a) The Committee shall function primarily as an information sharing forum and an advisory body. The Committee's authority shall be limited to providing advice, including advice in the form of recommendations, to the Company, an Enterprise performing services under its Administrative Services Agreement and/or the Board. The Committee need not reach consensus on the issues on which it provides advice, and may choose to provide the Company, an Enterprise and/or the Board with differing views or a range of views. The members of the Committee shall have no voting rights whatsoever (outside the context of the Committee) solely by virtue of their membership on the Committee. Notwithstanding the foregoing, any member of the Committee may request that any agreement negotiated by an Enterprise on behalf of the Company be approved by the Board before execution and the Enterprise shall not enter into any agreement negotiated by an Enterprise on behalf of the Company until notice of the existence of such agreement has been provided to the Committee pursuant to Section 4(b) below.

(b) In addition to the foregoing, the Committee may also carry out certain tasks related to transitioning administrative services to the Company and overseeing the functioning of corporate functions of the Company (e.g., human resources, internal audit, compliance, legal, enterprise risk management, information security, procurement, finance and treasury operations and technology services that support these corporate functions), including developing, managing, and implementing plans for the transition of administrative services to the Company, or the development of corporate functions at the Company; researching recommending third party vendors to take over certain

administrative and corporate services; and recommending prioritization and scheduling for the transition of administrative services from the Enterprises to the Company. Prior to the transition of the administrative services to the Company for management, the Committee will be responsible for reviewing and discussing issues handled by the Enterprises under their respective Administrative Services Agreements or through joint "work streams" - such as Business/Operations, Human Resources, and Legal - and will make recommendations to the Board for decisions. The Committee may continue to oversee issues related to administrative services until such time as the Company has assumed a specified administrative function or contracted out the function to a vendor through an approved contract.

(c) Each Enterprise’s Committee members shall promptly supply the Committee with such information as may be reasonably requested by the Committee or the other Enterprise’s Committee members regarding the services provided by such Enterprise pursuant to the Administrative Services Agreement, including without limitation a regularly updated list of all contracts or agreements being negotiated on behalf of the Company with third parties by each Enterprise. Such information may also include information with respect to agreements being negotiated on behalf of the Company with third parties, including the substantive positions proposed to be taken on behalf of the Company and copies of draft agreements, and shall be provided sufficiently in advance for the Committee or the other Enterprise to provide advice regarding such positions and drafts.

(d) The Company shall provide to the Committee a regularly updated list of contracts or agreements of the Company currently in effect or being negotiated by the Company, together with such other information regarding current or pending contracts as may be requested by any Committee member.

(e) The Company shall promptly supply to the Committee information regarding all amendments and changes to the Company’s confidentiality and information security standards. Such standards are currently contained in the Company’s corporate policies on Acceptable Use and Information Classification as well as the Company’s Code of Conduct and Contractor Service Requirements.

(f) The Committee shall provide its advice to the Board and the Company through the Committee Chair. The Committee Chair shall make presentations at meetings of the Board and shall provide written reports to the Board, as requested by the Board. Such presentations and reports shall include the view of any one or more members as may wish to contribute. The Committee Chair shall be accompanied at Board meetings by any one or more members of the Committee as wish to attend, and such Committee members may discuss with the Board Committee matters as desired.

5. FHFA.

While FHFA is acting in its role as Conservator of both (but not just one) Enterprises, FHFA shall receive a copy of all materials distributed to the entire Committee, as well as any materials provided by the Committee to the Enterprises, the Board or the Company, in each case, at the same time such materials are distributed to the Committee, Board or Company, as applicable.

EXHIBIT C

CHARTER OF THE PLATFORM STEERING COMMITTEE
OF THE BOARD OF MANAGERS
OF COMMON SECURITIZATION SOLUTIONS, LLC

Overview:

- The PSC holds primary ownership of CSS and Tri-Party Readiness, reporting a unified view across the topic areas highlighted in 'Key Activities' to the Board and CSS CEO and providing advisory support.
- These areas span the Common Securitization Platform functions, including Technology, Operations, overall CSS/GSE-adoption production readiness, and the CSP service catalog and interface specifications.
- The PSC meeting schedule will be set up so that PSC meetings are held two weeks prior to each Board meeting or monthly. At least five (5) days advance notice shall be given of any regularly scheduled meeting of the Committee. The agenda will be created by the Chair and the appointed Enterprise lead and will include items requested by either Enterprise. The agenda and associated meeting materials will be provided to PSC members at least three (3) business days in advance of the meeting. Meeting materials shall be well organized and provide reasonably detailed (but concise) information concerning items on the agenda for the meeting. The Committee Chair or his/her delegate will circulate a summary of each meeting within ten (10) business days after the meeting.
- If/as needed, the CSS CEO, PSC Chair, leads for each Enterprise, and FHFA will meet in smaller sessions as a sub-committee of the PSC to resolve matters.
- This sub-committee may fulfill the responsibilities and functions of the larger PSC, to the extent desired.
- Additional sub-committees may be formed as needed to address major topics.

Chair:

The Company's Chief Executive Officer or the Company's Chief Operating Officer.

Key Topic Areas:

Joint Solutioning and Escalation:

- Primary forum for resolution of platform production readiness activities (i.e. technology decisions, operations needs, scheduling compliance), including but not limited to those affecting the Enterprises

- Prioritize and drive open CSP scope, process and technology questions through joint analysis
- Escalation point to resolve CSS/GSE decisions, decision and other delays, performance and other issues, and risks

Enterprise Alignment:

- Forum for multi-party alignment of divergent approaches or requests made to CSS
- Review and plan for joint production readiness activities and assessments

Change Management:

- Review and approval of significant proposed changes related to Operations or Technology, including those that impact budget, scope and/or timeline or would have an impact on Enterprise operations
- Review and approve requests to modify interim integrated project milestones, deliverables, or budgets, within delegated authority
- Primary change management forum for items impacting two or more of CSS, Fannie Mae and/or Freddie Mac

Joint Planning and Execution Governance:

- Monitoring of status of joint CSS/GSE activities (e.g. integration testing, conversion, parallel processing)
- Detailed, quarterly review of CSS activities and the progress of various Enterprise projects that link to CSP implementation
- Forum for CSS/ Freddie Mac, CSS/Fannie Mae adoption governance, including Scope, Operational Readiness, Testing and Conversion activities
- Monitoring the achievement of the Service Levels contained in the Customer Services Agreement between the Enterprises and CSS

EXHIBIT D

ASSIGNED EMPLOYEE TERMS AND CONDITIONS

This Exhibit D is to be read in conjunction with Article 9 of the LLC Agreement. Except as otherwise stated herein, all capitalized terms set forth herein shall have the meanings set forth in the LLC Agreement.

1. **Assignment of Assigned Employees.** Individuals shall be assigned to work on behalf of the Company as Assigned Employees either by: (i) application by an individual through an Enterprise's posting process, which may be open to both internal (for both Enterprises) and external candidates; or (ii) an Enterprise identifying and assigning qualified persons to work on the Platform. The Enterprises will jointly determine the process for candidate selection; however, the Enterprise which employs (or will employ) the individual will determine, in its sole discretion, (A) the conditions for employment and (B) whether the individual has the skills needed for the assignment and is available to be assigned to work on behalf of the Company.

2. **Applicable Policies.** Assigned Employees will be subject to the personnel policies and practices of the Enterprise which employs them, including but not limited to the compensation and benefits policies and practices of the employing Enterprise. Assigned Employees shall not be subject to any personnel policies or practices of any other entity, with the exception of Company policies and practices that are specifically related to: (i) the operation of the facility in which they will perform their duties, including security procedures, hours in which the facility is open, and badge systems; (ii) performance management; (iii) training; (iv) on-the-job conduct and behavior; and (v) compliance with respect to safety, legal requirements and codes of conduct. In the event of any conflict or inconsistency between the policies and practices of the Company specifically related to the matters described in the preceding sentence and the policies and practices of an Enterprise specifically related to such matters, the policies and practices of the Company specifically related to such matters will be controlling.

3. **Restricted Period.** All Assigned Employees shall remain at-will employees of their respective Enterprise during the course of the assignment. However, subject to the Enterprises' rights to terminate the employment relationship with or without cause or notice, the Enterprises agree that each Assigned Employee will not be transferred from working on behalf of the Company as an Assigned Employee to another Enterprise position or assignment for a period of one year following the start of the individual's assignment as an Assigned Employee ("Restricted Period").

    i. During the Restricted Period, an Assigned Employee may be transferred from the assignment with the Company to another Enterprise position or assignment only by agreement of both the Company and the Enterprise employing the Assigned Employee.

ii. If an Assigned Employee becomes employed by the Company during the Restricted Period, the Enterprises agree that they will not solicit the Company employee during the Restricted Period, except by agreement of both the Company and the Enterprise seeking to employ the Company employee.

iii. Following the Restricted Period, there shall be no restriction on the Assigned Employee moving to another position or assignment within his or her employing Enterprise.

For clarification, the Restricted Period shall not be shortened or extended by the Assigned Employee's hire by the Company; the Restricted Period shall be one year from the start of the assignment regardless of whether the Assigned Employee becomes employed by the Company during the course of the Restricted Period.

4. **Indemnification – Assigned Employees.** The Company shall defend, indemnify, and hold harmless each of the Fannie Mae Indemnified Parties and Freddie Mac Indemnified Parties from and against any Damages suffered or incurred by any Fannie Mae Indemnified Party or Freddie Mac Indemnified Party, as the case may be, to the extent such Damages result or arise from any employment-related Claim (whether such Claim is based on contract, statute or common law) asserted by any Assigned Employee related to the Assigned Employee's work or assignment to work on the Platform or any other work on behalf of the Company, including but not limited to any claim of discrimination and harassment, failure to comply with laws pertaining to wages and hours (including the payment of overtime wages), alleged violations of right to privacy, alleged violation of health or safety laws, the failure to provide legally required leaves of absence or other alleged violations of law. The indemnification procedures set forth in Section 14.4 of the LLC Agreement shall apply to any indemnification under this Section 4.

5. **Indemnification – Company Employees.** The Company shall defend, indemnify, and hold harmless each of the Fannie Mae Indemnified Parties and Freddie Mac Indemnified Parties from and against any Damages suffered or incurred by any Fannie Mae Indemnified Party or Freddie Mac Indemnified Party, as the case may be, to the extent such Damages result or arise from any employment-related Claim (whether such Claim is based on contract, statute, or common law) asserted by any Company employee or as a result of any acts or omissions by a Company employee which gives rise to an employment-related Claim, including but not limited to any claim of discrimination and harassment, failure to comply with laws pertaining to wages and hours (including the payment of overtime wages), alleged violations of right to privacy, alleged violation of health or safety laws, the failure to provide legally required leaves of absence or other alleged violations of law. The indemnification procedures set forth in Section 14.4 of the LLC Agreement shall apply to any indemnification under this Section 5.