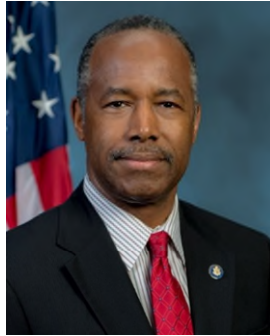




U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

ANNUAL REPORT
TO CONGRESS REGARDING THE
FINANCIAL STATUS OF THE FHA
MUTUAL MORTGAGE INSURANCE FUND
FISCAL YEAR 2019





Secretary's Foreword

I am pleased to present the U.S Department of Housing and Urban Development's Annual Report to Congress regarding the status of the Federal Housing Administration's (FHA) Mutual Mortgage Insurance Fund (MMI Fund) for Fiscal Year (FY) 2019. This year's Annual Report reflects the significant progress FHA has made since this Administration has taken office to improve the financial viability of the MMI Fund to protect taxpayers and continue serving American homebuyers not well served through traditional underwriting and senior homeowners seeking to age in place.

In FY 2019, FHA insured over 990,000 forward mortgages and over 31,000 Home Equity Conversion Mortgages (HECM). As of September 30, 2019, FHA had active insurance on more than 8.1 million forward mortgages totaling more than \$1.2 trillion in unpaid principal balance (UPB), and HECMs totaling \$64.2 billion in outstanding balance. Moreover, as in past years, FHA remained a key source of financing for first-time and minority homebuyers, with more than 615,000 individuals and families achieving the dream of homeownership and nearly a third of all endorsements supporting minority borrowers.

Importantly, FHA continues to show improvement in the financial performance of its forward and HECM insurance portfolios. FHA's MMI Fund Capital Ratio for FY 2019 increased to 4.84 percent from 2.76 percent in FY 2018, which remains above the 2.00 percent statutory minimum level. Additionally, the Economic Net Worth, or MMI Fund Capital, for FY 2019 was at \$62.38 billion, an increase of over \$27.52 billion from FY 2018.

Although the results in this report are directionally positive, FHA must strengthen its portfolio if it is to capably fulfill a role as a countercyclical source of mortgage credit, particularly during periods of market distress, and ensure taxpayers are protected from unnecessary risks. In our Housing Finance Reform Plan released in September of this year, we propose a number of solutions that would reduce risks to the MMI Fund, protect taxpayers from future bailouts, and ensure the FHA maintains its focus on providing access to mortgage financing to low- and moderate-income families that cannot be fulfilled through traditional underwriting. Reforms should not and need not wait on legislation, and we are implementing the proposals for which HUD has authority in the absence of further Congressional action.

The work we have done this past fiscal year, and the work we intend to undertake going forward, will make certain FHA can continue to continue fulfilling a role to serve qualified first-time, low- and moderate-income and minority homebuyers, and seniors wishing to age in place.

As we present this Annual Report to Congress, we remain firm in our commitment to carry out our statutory duty to fiscal responsibility, protecting taxpayers, and ensuring FHA can responsibly serve its targeted-mission borrowers.

A handwritten signature in dark ink, appearing to read 'B. Carson', with a long, sweeping horizontal line extending to the right.

Benjamin S. Carson, Sr., M.D.
Secretary
U.S. Department of Housing and Urban Development



A Message from the Assistant Secretary for Housing and Federal Housing Commissioner

The Federal Housing Administration (FHA) is now in its 85th year of service. Throughout its history, FHA has fulfilled a vital role for the nation: facilitating affordable single family home financing through its mortgage insurance programs for qualified first-time, low- and moderate-income and minority homebuyers who might otherwise never achieve the financial and social gains that homeownership brings.

This is a crucial time for FHA. As Secretary Carson notes in his Foreword, we have made great strides toward restoring the Mutual Mortgage Insurance Fund's health and are at last showing reasonable gains in the Fund's financial performance. We have been entrusted by Congress with \$20 million of initial funding for information technology and are aggressively building the state-of-the-art replacement for our aged infrastructure. And we have taken actions that address key risk trends in both our forward and Home Equity Conversion Mortgage (HECM) insurance portfolios.

We must, however, be prudent in our approach to future actions so that they will yield positive results for the American taxpayer not just for today, but for years to come.

Throughout this report, you will see metrics and statistics that showcase the results of our activity for FY 2019. This year, we have expanded how we discuss the financial position of the MMI Fund to provide what we believe is a truer picture of its capital adequacy. The report now includes an analysis highlighting modeling assumptions and housing market variables that can impact MMI Capital and the MMI Fund's overall Capital Ratio in any given year. We also discuss a best-practice approach for managing the capital position of the Fund which would place FHA in a stronger position to facilitate its counter-cyclical role when needed.

Though still negative, HECM MMI Capital improved by \$7.71 billion, moving from negative \$13.63 billion at the end of FY 2018 to negative \$5.92 billion at the end of this past fiscal year. Similarly,

the HECM capital ratio improved from negative 18.83 percent in FY 2018 to negative 9.22 percent in FY 2019. This clearly show the progress we have made toward stabilizing the HECM portfolio's financial drain on the MMI Fund. Further, we expect that policy changes made this past fiscal year to address the volume of forward mortgages with layered risk characteristics will show measurable results in FY 2020. We also believe that our outsized share of cash-out refinance transactions will be moderated or even reduced next year as a result of recent policy changes to bring cash-out refinance maximum loan-to-value ratios into alignment with the rest of the industry.

During the past eight and a half decades, we have had 29 appointed FHA Commissioners. I feel privileged to twice be among them. Like most of my predecessors, I hold the tenet that responsible stewardship of FHA means that our core mission must, by explicit definition, be to serve those American homebuyers who need us the most.



Brian D. Montgomery
Assistant Secretary for Housing
and Federal Housing Commissioner

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Annual Report Overview

Introduction

This overview highlights the key data presented in the Federal Housing Administration (FHA) Annual Report to Congress Regarding the Financial Status of the Mutual Mortgage Insurance Fund for Fiscal Year (FY) 2019 (Annual Report).

Capital Ratio Exceeds the Required 2.00 Percent Regulatory Minimum

As of September 30, 2019, the combined Capital Ratio in the Mutual Mortgage Insurance (MMI) Fund for FY 2019 is 4.84 percent, an increase of 2.08 percentage points from the 2.76 percent Capital Ratio for FY 2018.

Exhibit O-1: MMI Fund Capital Ratio Components

Description	FY 2017	FY 2018	FY 2019
Total Capital Resources ¹	\$40,857	\$49,237	\$57,980
Plus: NPV Projected Revenue	\$59,116	\$51,248	\$51,436
Equals: Claims Paying Capacity	\$99,973	\$100,485	\$109,416
Less: NPV Projected Losses	(\$73,227)	(\$65,623)	(\$47,034)
Equals: MMI Capital²	\$26,745	\$34,862	\$62,382
Insurance-In-Force	\$1,226,843	\$1,264,672	\$1,288,436
Total Capital Resources	3.33%	3.89%	4.50%
Plus: NPV Projected Revenue	4.82%	4.05%	3.99%
Equals: Claims Paying Capacity	8.15%	7.95%	8.49%
Less: NPV Projected Losses	-5.97%	-5.19%	-3.65%
Equals: MMI Fund Capital Ratio	2.18%	2.76%	4.84%

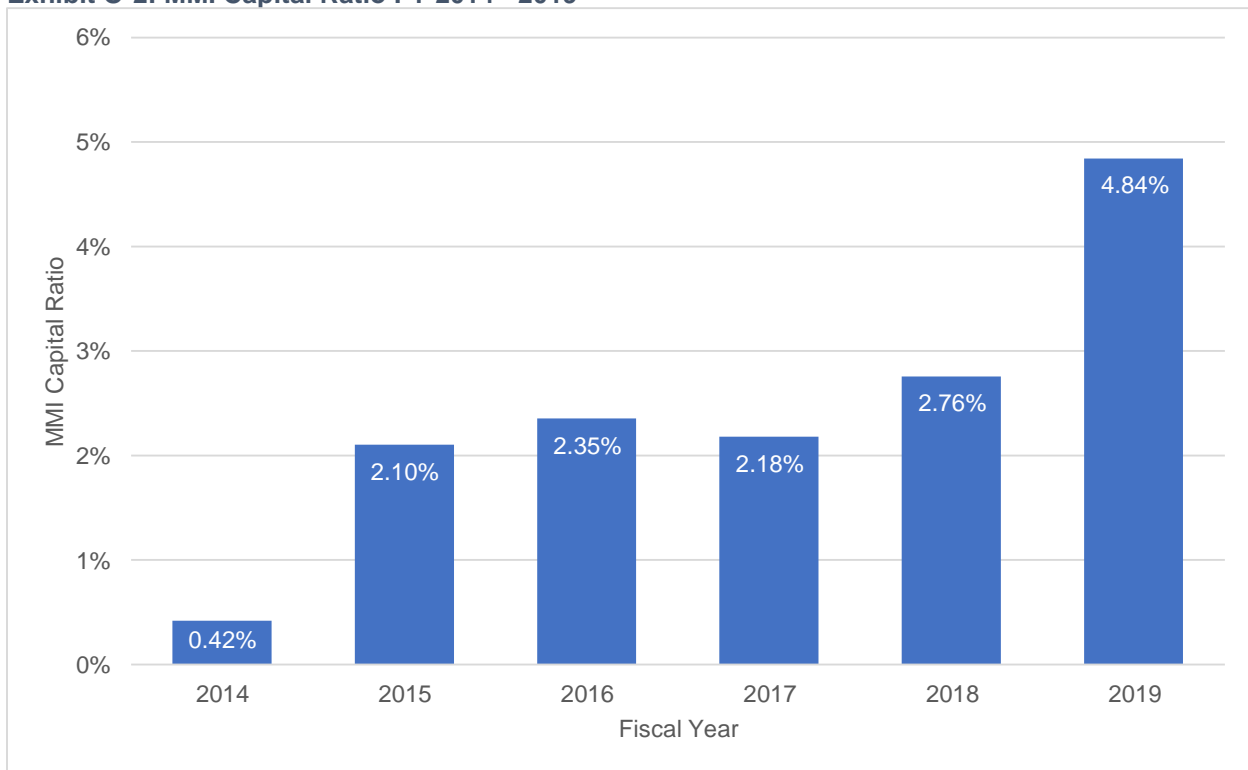
SOURCE: U.S. Department of HUD/FHA, October 2019.

MMI Capital increased by \$27.5 billion, benefitting from seven years of strong house price appreciation and by more favorable economic projections than assumed in the FY 2018 report.

¹ Includes \$1.7 billion mandatory appropriation from FY2013

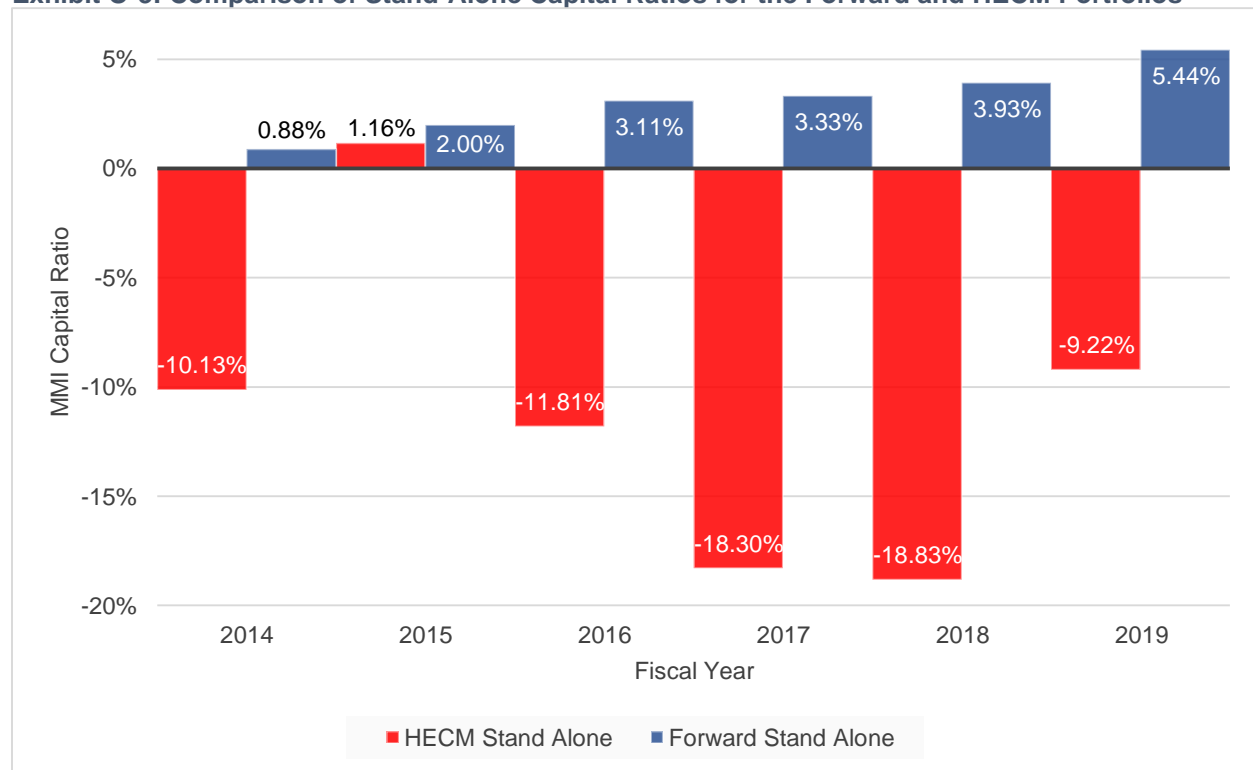
² MMI Capital was referred to as Economic Net Worth in past reports. The new terminology is consistent with industry standards.

Exhibit O-2: MMI Capital Ratio FY 2014 - 2019



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-1 in Appendix C.

MMI Capital Ratio exceeds the 2.00 percent regulatory minimum for the fifth consecutive year:
Exhibit O-2 shows the history of the MMI Capital Ratio since FY 2014. This is the highest level since 2007 when the MMI Capital Ratio reached 7.0 percent.

Exhibit O-3: Comparison of Stand-Alone Capital Ratios for the Forward and HECM Portfolios

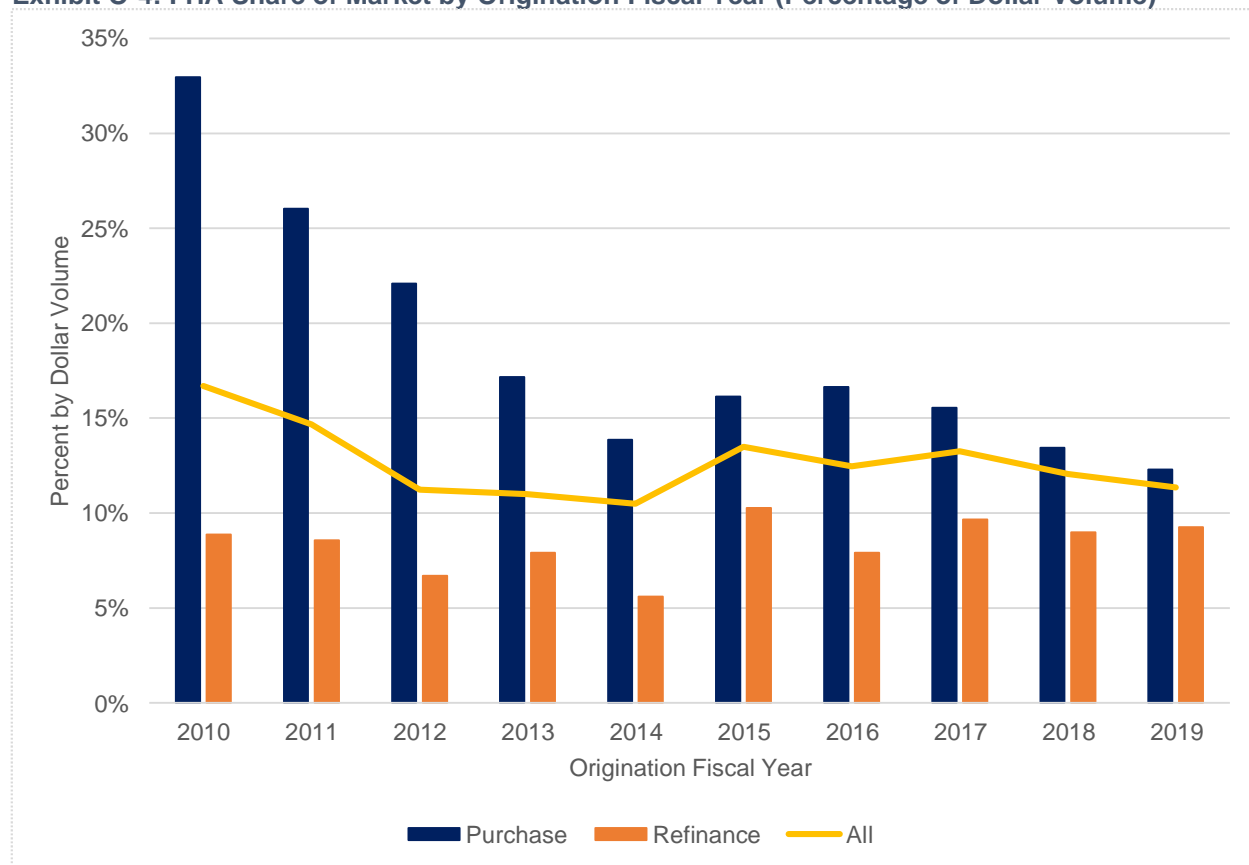
SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-2 in Appendix C.

In addition to the fiscal condition of the MMI Fund, FHA provides stand-alone reporting on the financial status of both the Forward mortgage and Home Equity Conversion Mortgage (HECM) portfolios. Exhibit O-3 provides a comparison of stand-alone capital ratios for the Forward and HECM insurance portfolios since 2015. The financial performance of the HECM portfolio shows improvement, attributable to both the overall health of the housing market during the past fiscal year and policy actions FHA took in FY 2018 and FY 2019. However, as in past years, the HECM portfolio continues to be subsidized by the positive performance of the Forward portfolio and continues to negatively impact the overall performance of the MMI Fund.

Stand-Alone Highlights Include:

- The Capital Ratio for the Forward mortgage portfolio is 5.44 percent for FY 2019, an increase from 3.93 percent in FY 2018.
- The Capital Ratio for the HECM portfolio is negative 9.22 percent for FY 2019, an improvement over negative 18.83 percent in FY 2018.

FHA Continues to Serve its Core Mission

Exhibit O-4: FHA Share of Market by Origination Fiscal Year (Percentage of Dollar Volume)

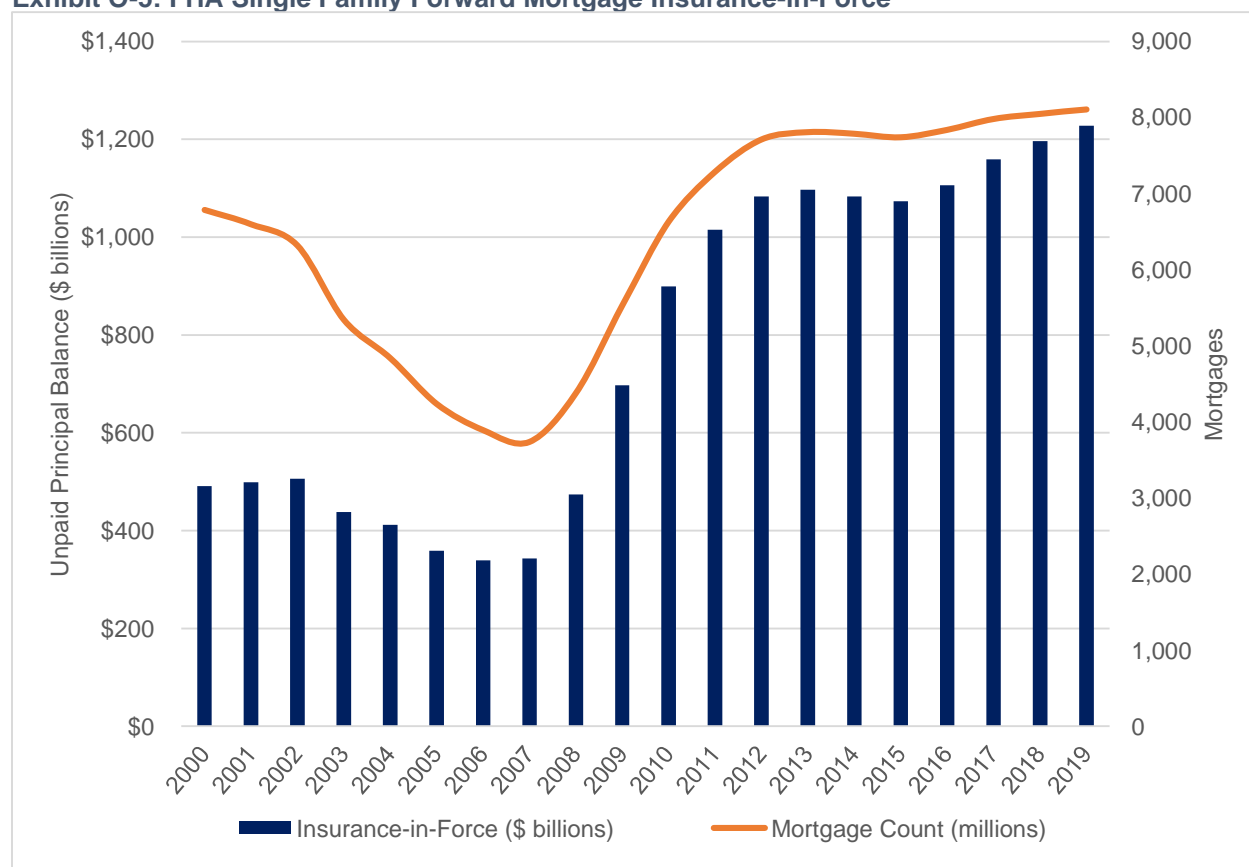
NOTE: Ratios of dollar volume may not reconcile exactly to market shares due to rounding.

SOURCE: U.S. Department of HUD/FHA, October 2019. Originations based on beginning amortization dates.

Includes all conventional and government single family forward originations. Mortgage Bankers Association of America, "MBA Mortgage Finance Forecast," August 2019.

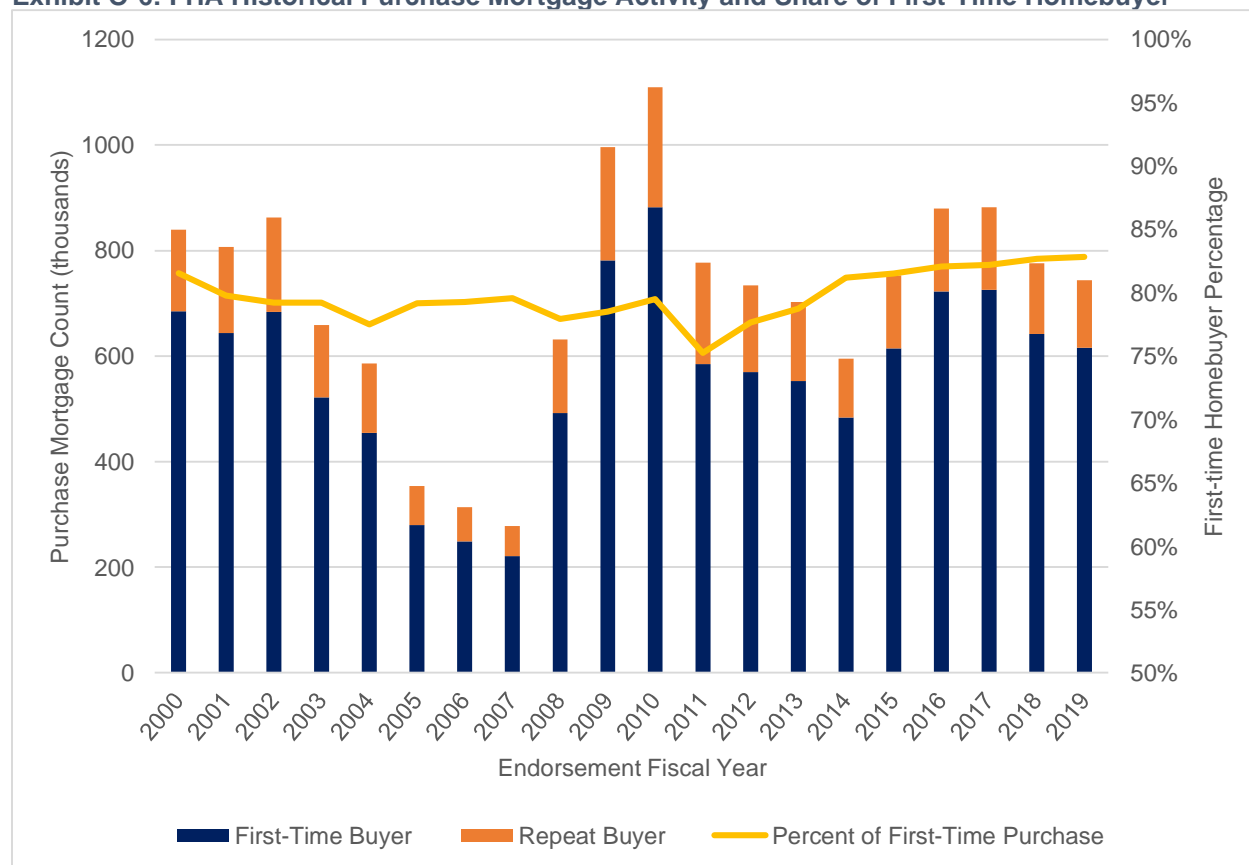
Refer to data table A-1 in Appendix A.

FHA forward market share decreased again in FY 2019: FHA mortgage insurance continues to serve as an important facilitator of nationwide mortgage credit availability and access to homeownership. FHA-insured mortgages comprised 11.41 percent of all single-family residential mortgage originations (by dollar volume)—a decrease from the 12.28 percent market share in FY 2018 and down from the 17.90 percent post-crisis period peak occurring in FY 2009. Exhibit O-4 illustrates the important countercyclical role of FHA: utilization contracts in a strong housing market, and expands during times of housing and economic stress, as it did in 2009 and 2010.

Exhibit O-5: FHA Single Family Forward Mortgage Insurance-in-Force

SOURCE: U.S. Department of HUD/FHA, October 2019.
 Refer to data table A-2 in Appendix A.

Despite the decrease in overall market share, the Forward mortgage portfolio continues to grow at a modest pace. FHA's footprint in the U.S. housing market remains substantial, totaling \$1.224 trillion of Insurance-in-Force (IIF) in 2019, an increase from \$1.196 trillion in 2018, as shown in Exhibit O-5.

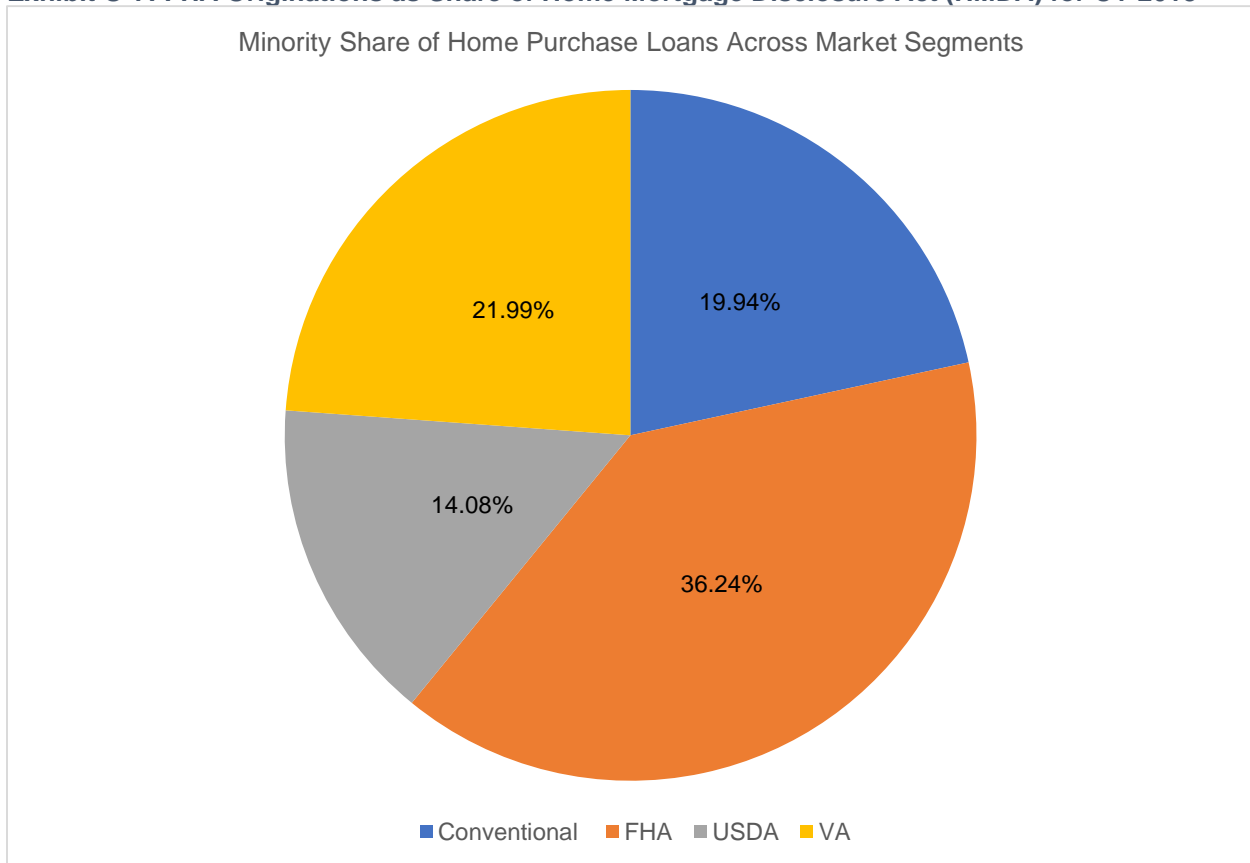
Exhibit O-6: FHA Historical Purchase Mortgage Activity and Share of First-Time Homebuyer

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-2 in Appendix B.

FHA continues to be a major source of funding for first-time homebuyers:³ Purchase transaction mortgages represented 75.05 percent of FHA's FY 2019 endorsements, and the share of FHA-insured purchase transaction mortgages for first-time homebuyers remained relatively stable at 82.84 percent in FY 2019, as shown by Exhibit O-6.

³ A first-time home buyer is an individual who has had no ownership in a principal residence during the three-year period ending on the date of purchase of the property. This includes a spouse (if either meets the above test, they are considered first-time homebuyers).

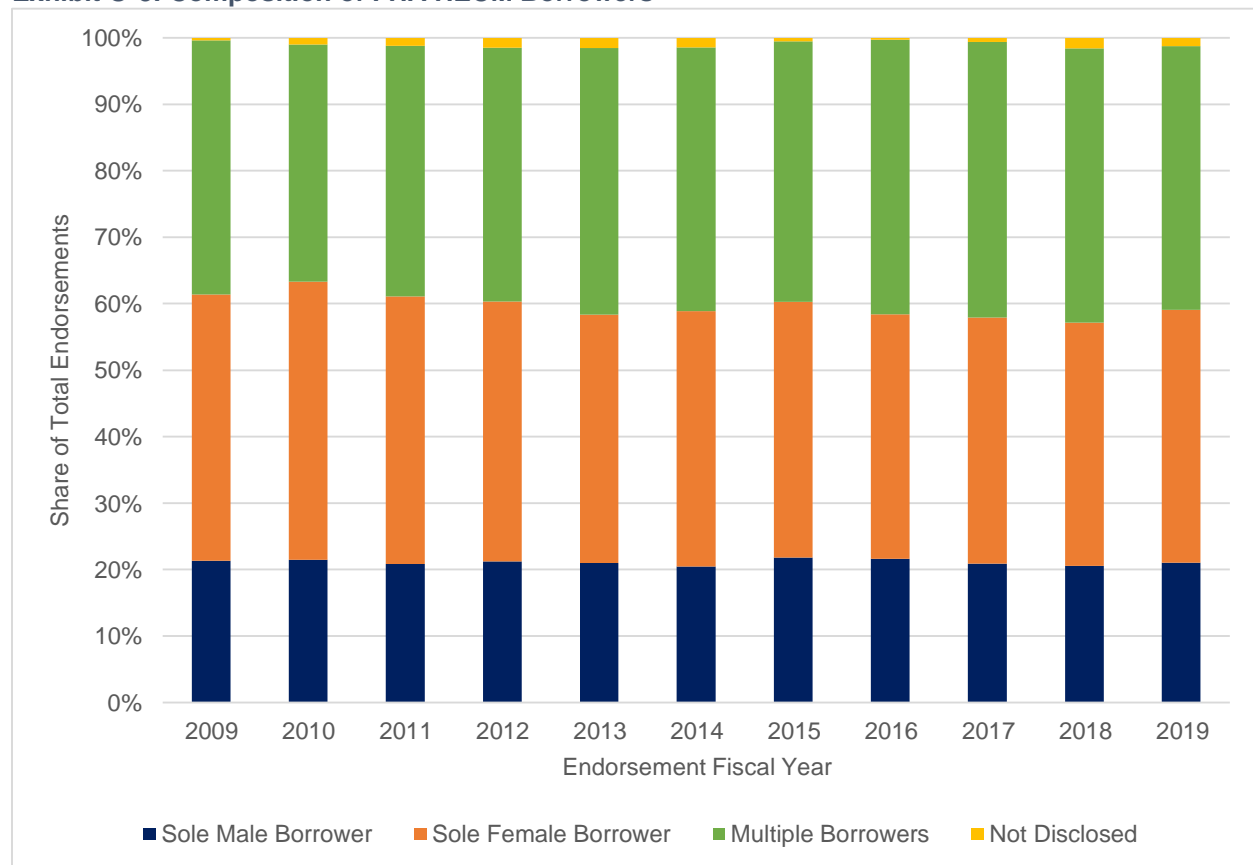
Exhibit O-7: FHA Originations as Share of Home Mortgage Disclosure Act (HMDA) for CY 2018



SOURCE: Home Mortgage Disclosure Act (HMDA), December 2018.
Refer to data table A-3 in Appendix A.

FHA-insured loans are an important option for many minority homebuyers. In CY 2018, according to Home Mortgage Disclosure Act (HMDA) data, FHA insured approximately 19.83 percent of all home purchase loans, but it was used for 40.58 percent of home purchases by African American households, 37.61 percent by Hispanic households, 28.90 percent by American Indians, and 8.65 percent by Asian and Hawaiian/Pacific Islanders. Overall, minorities made up 36.24 percent of all FHA purchase mortgage borrowers, compared to 19.94 percent through conventional lending channels.

Exhibit O-8: Composition of FHA HECM Borrowers



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-27 in Appendix B.

Approximately 60 percent of HECM endorsements are to single borrowers, who tend to be at lower income levels than non-single borrowers: The HECM program continues to provide eligible seniors with a financing option that allows them to “age in place.” While a private reverse mortgage market has begun to emerge, FHA continues to have a dominant presence.

Measures Taken to Strengthen the MMI Fund

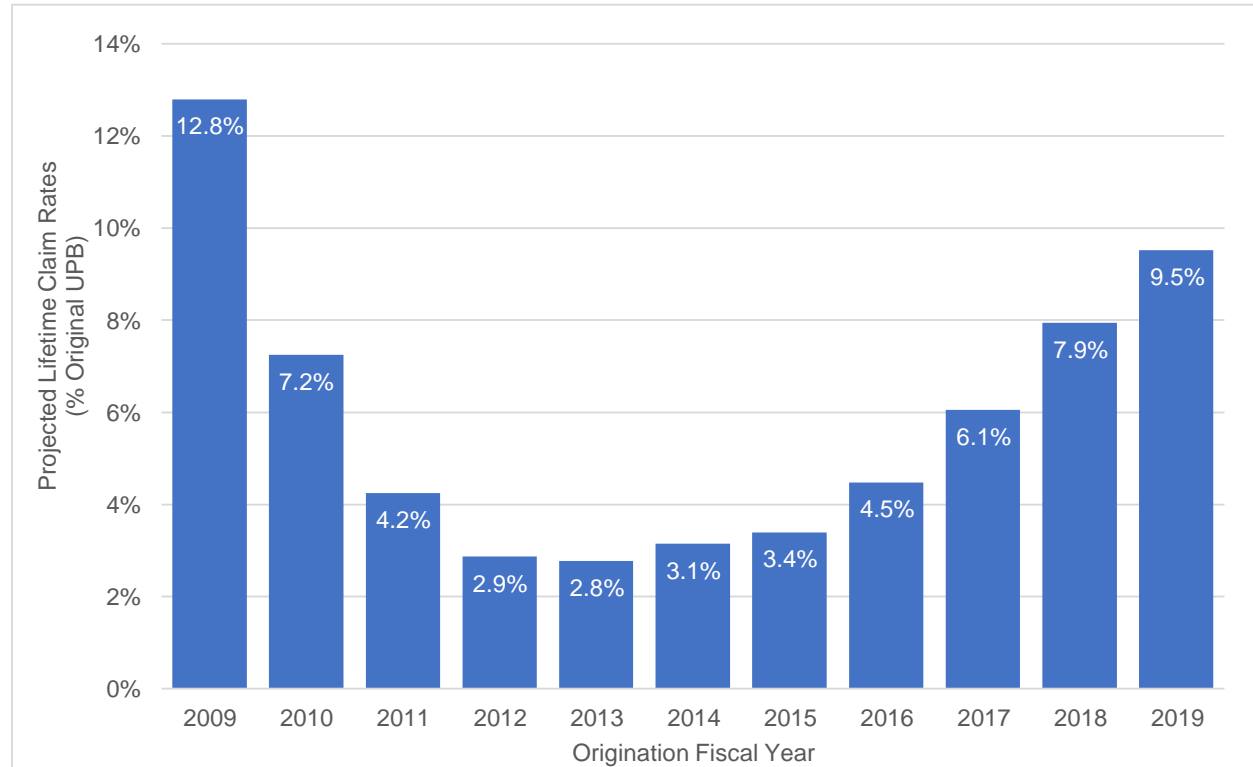
The remainder of this Overview and Chapter I detail and discuss emerging risks within the MMI Fund. Over the course of the last fiscal year, and in the beginning of FY 2020, FHA has taken steps to strengthen the MMI Fund by addressing these risks, including:

- Counterparty and Lender Compliance
- Loan-Level Certifications
- Annual Lender Certification
- Defect Taxonomy
- Changes to HECM Program
 - Policy to address inflated property appraisals
 - Guidance for HECM's assigned prior to 2014
 - Revised origination requirements for HECM's in Condominium projects
- Improvements to FHA's Technology Open to Approved Lenders (TOTAL) Mortgage Scorecard underlying assumptions
- Changes to Cash-Out Refinance Mortgages

Details about these measures can be found in Chapter 3.

FHA Continues to Monitor Emerging Risks

Exhibit O-9: Projected Lifetime Claim Rates for FY 2019 Originations at the Highest Levels Since 2009

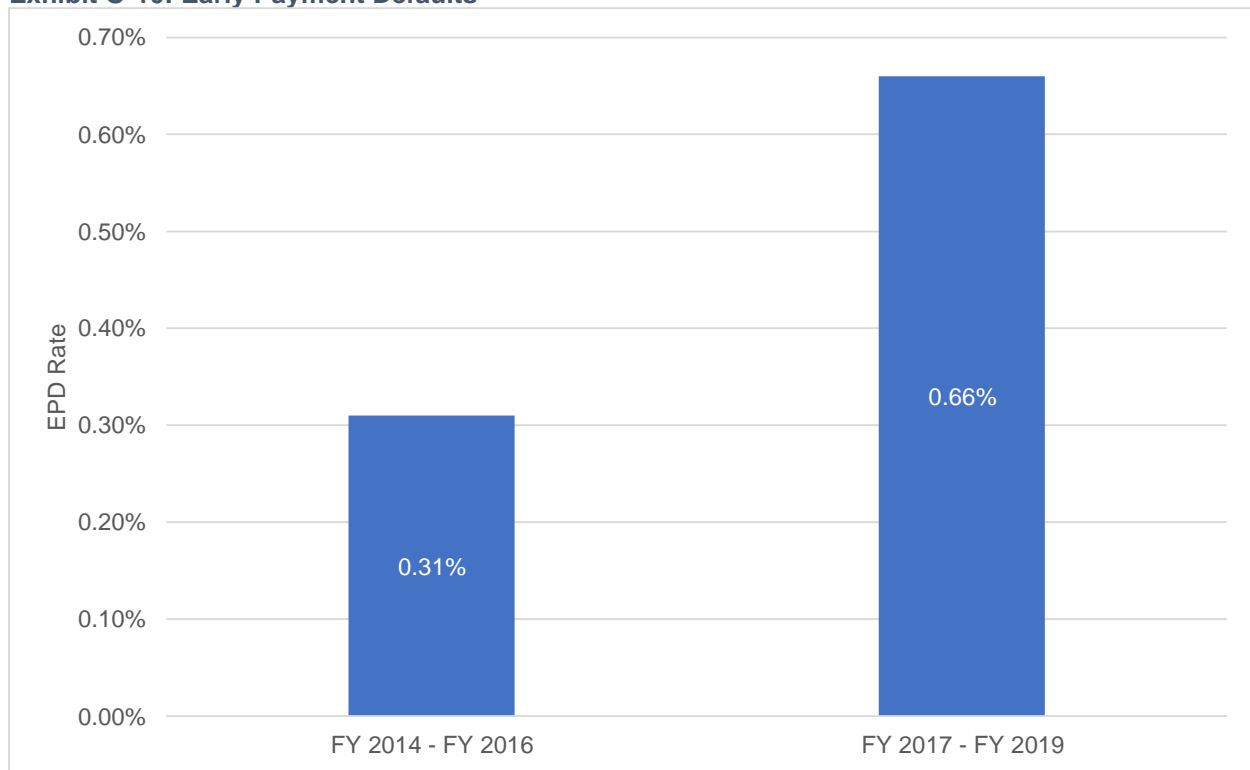


SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-3 in Appendix C.

Projected lifetime claim rates⁴ continue to increase: To ensure long-term health of the fund, FHA must continue to assess the drivers behind the increase in higher-risk credit characteristics in recent originations. The increasing levels of risk is reflected by a steady increase in projected lifetime claims. Exhibit O-9, above, shows that projected lifetime claim rates for recent originations are at their highest levels since 2009. Some of the emerging risks that lead to this result are presented in Exhibits O-11 through O-15.

⁴ Share of loans originated in a given fiscal year that are expected to go to claim.

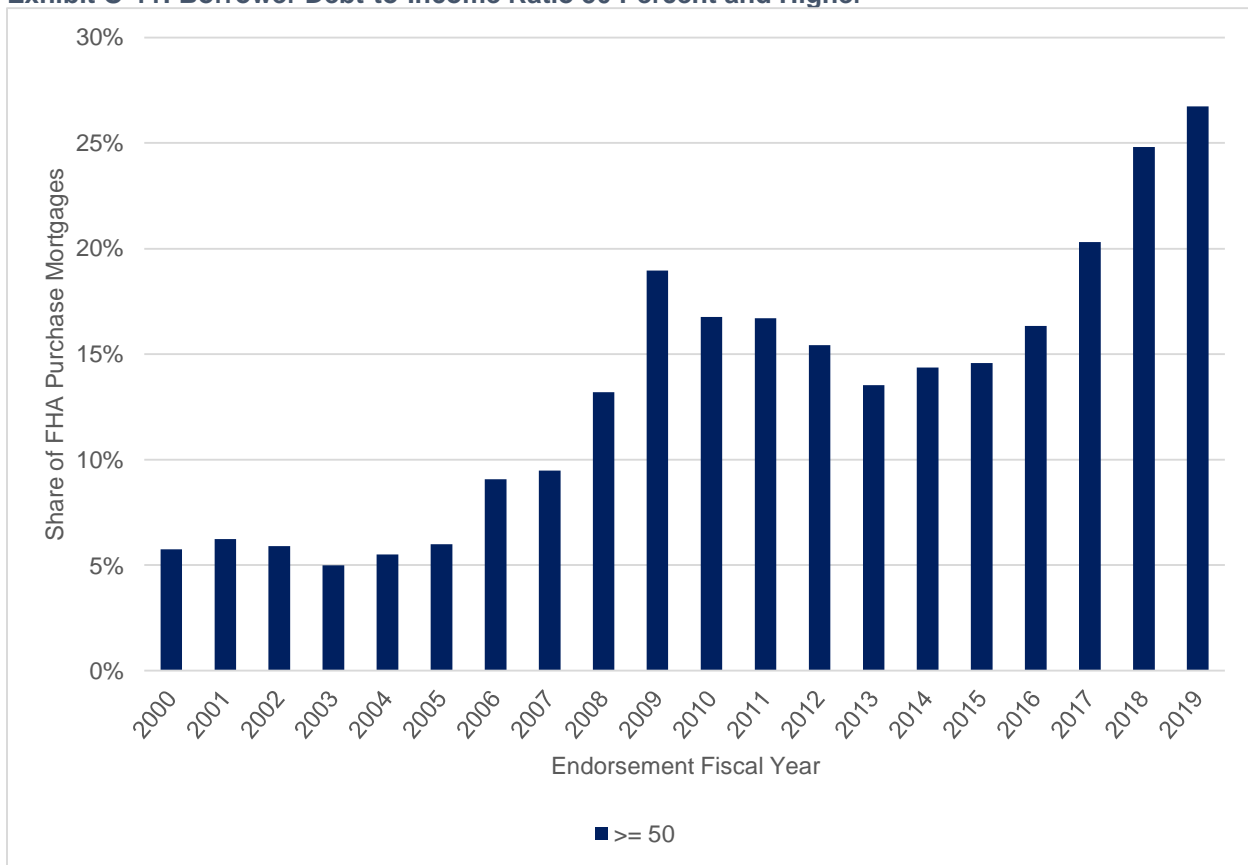
Exhibit O-10: Early Payment Defaults



SOURCE: U.S. Department of HUD/FHA, October 2019.

Early Payment Default (EPD) rates have increased in recent years: EPDs are those FHA-insured mortgages where the borrower becomes 90 days or more delinquent on their mortgage within the first six payments. EPD rates observed during the last three years are twice the levels experienced during the prior three years (Exhibit O-10), in part because of the increasing levels of risk that FHA has taken on since FY 2016.

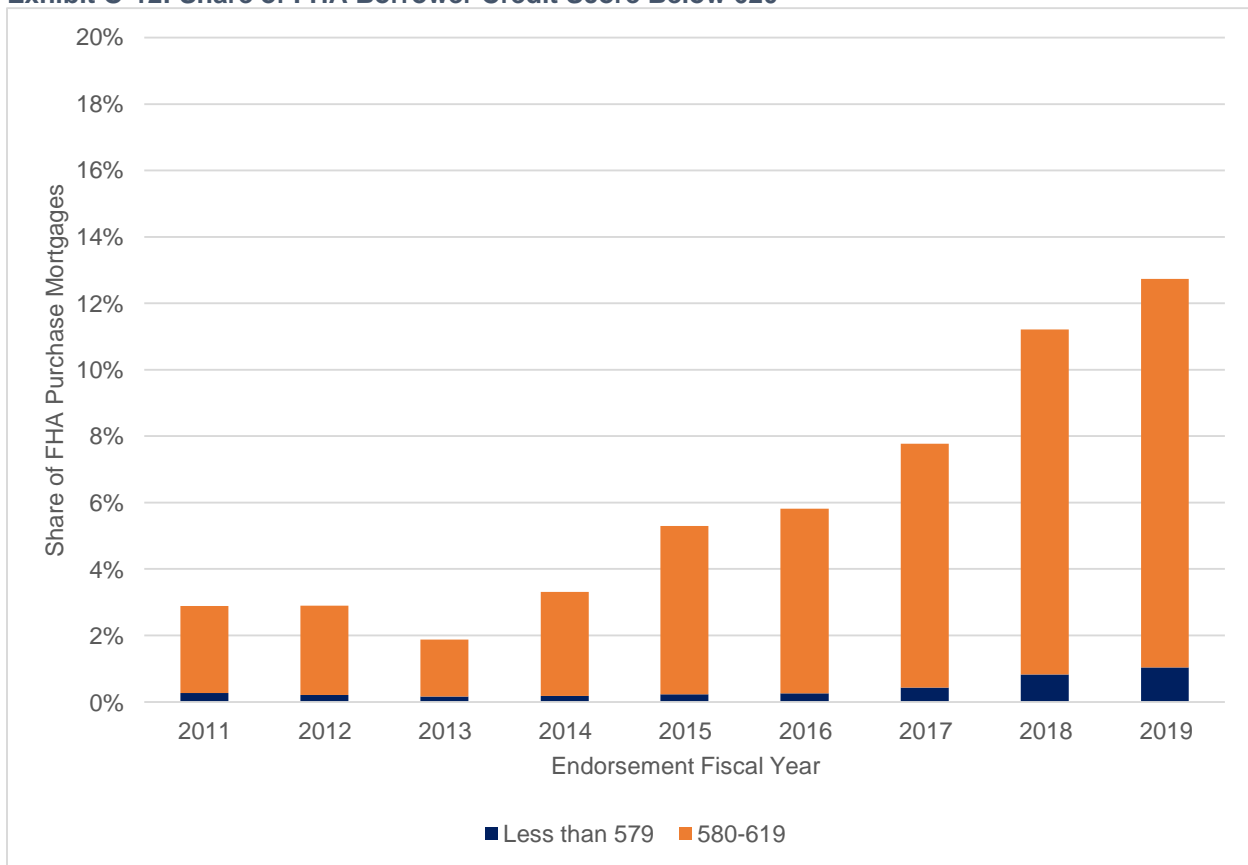
Exhibit O-11: Borrower Debt-to-Income Ratio 50 Percent and Higher



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-9 in Appendix B.

More than 25 percent of Purchase endorsements had Debt-to-Income (DTI) ratios over 50 percent: The average borrower DTI ratio increased for the sixth straight year. Exhibit O-11, above, shows that the share of FHA-insured mortgages with DTIs exceeding 50 percent has reached unprecedented levels, rising to 26.73 percent in FY 2019.

Exhibit O-12: Share of FHA Borrower Credit Score Below 620



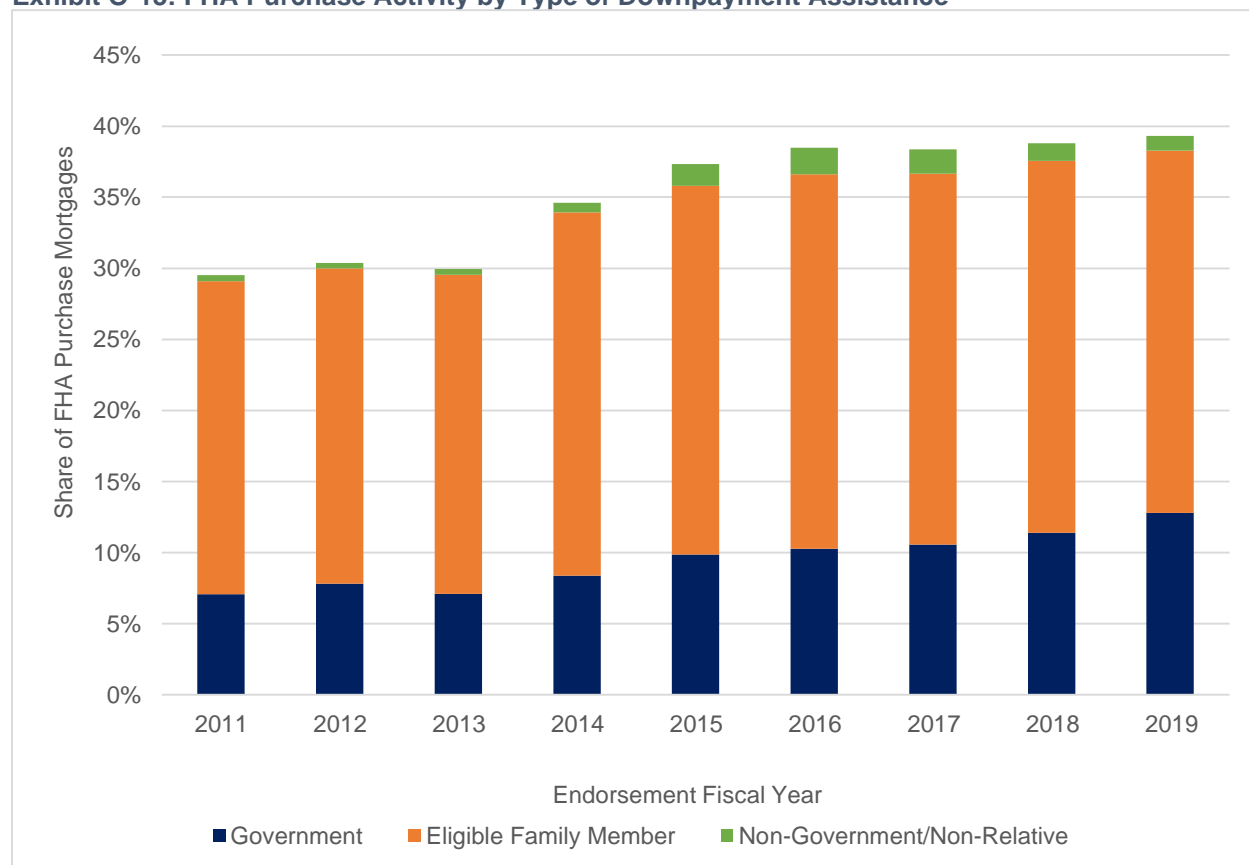
NOTE: Does not include Streamline Refinance mortgages.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-8 in Appendix B.

The volume of mortgages with credit scores less than 620 has doubled over the last three years:

The share of loans with borrower credit scores below 620 continued to increase from 11.21 percent in FY 2018 to 12.73 in FY 2019. Comparatively, in FY 2013, the share of borrowers with credit scores below 620 was 1.88 percent.

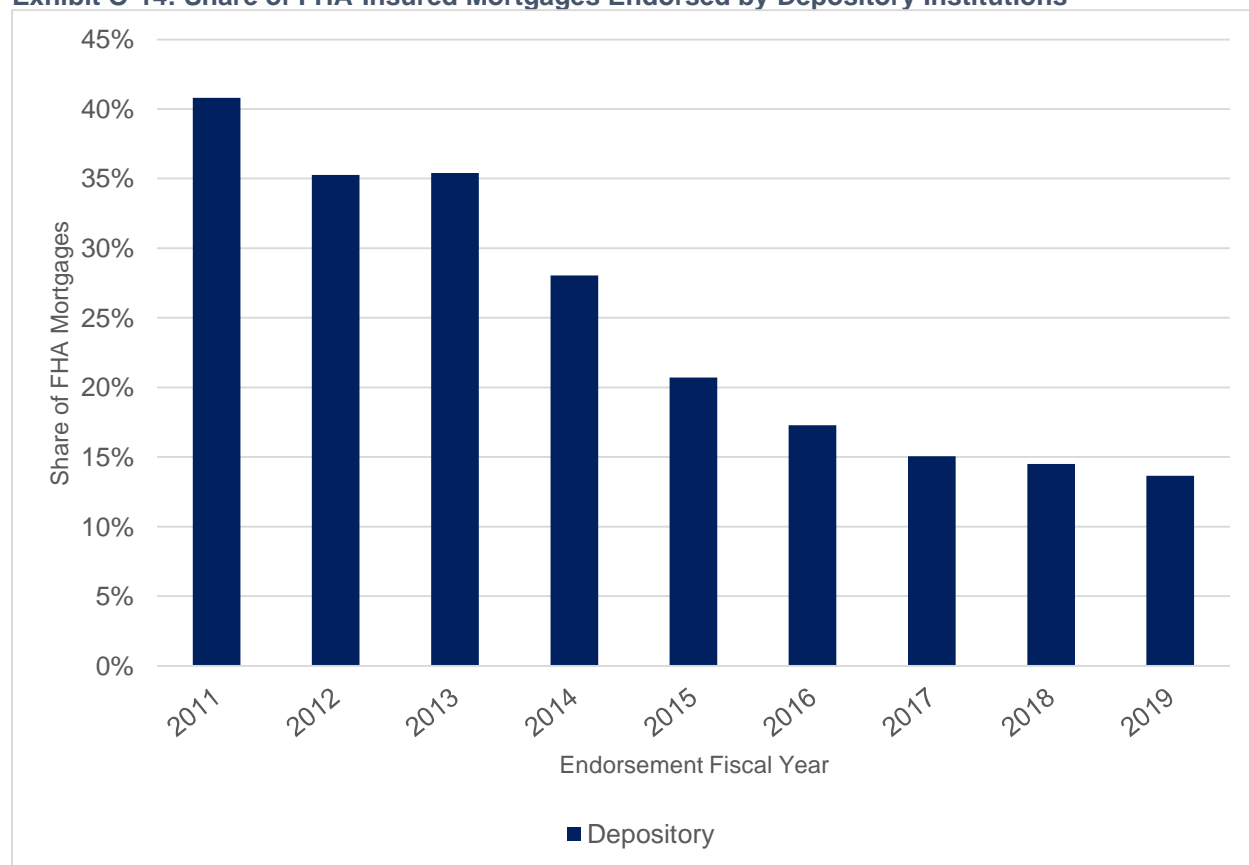
Exhibit O-13: FHA Purchase Activity by Type of Downpayment Assistance

NOTE: Data does not account for instances where downpayment assistance data was missing from origination data submitted to FHA.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-10 in Appendix B.

Almost 40 percent of FHA-insured Purchase Transaction Mortgages had some form of downpayment assistance (DPA): As illustrated in O-13, the share of purchase mortgages with DPA has continued to increase since FY 2011, rising from 29.53 to 39.34 percent in FY 2019. FHA-insured purchase mortgages with DPA tend to perform worse than those purchase mortgages without DPA (see Exhibits I-18 and I-19 in Chapter I). Since FY 2000, on average, mortgages with DPA have claimed at twice the level as mortgages without DPA.

Exhibit O-14: Share of FHA-Insured Mortgages Endorsed by Depository Institutions

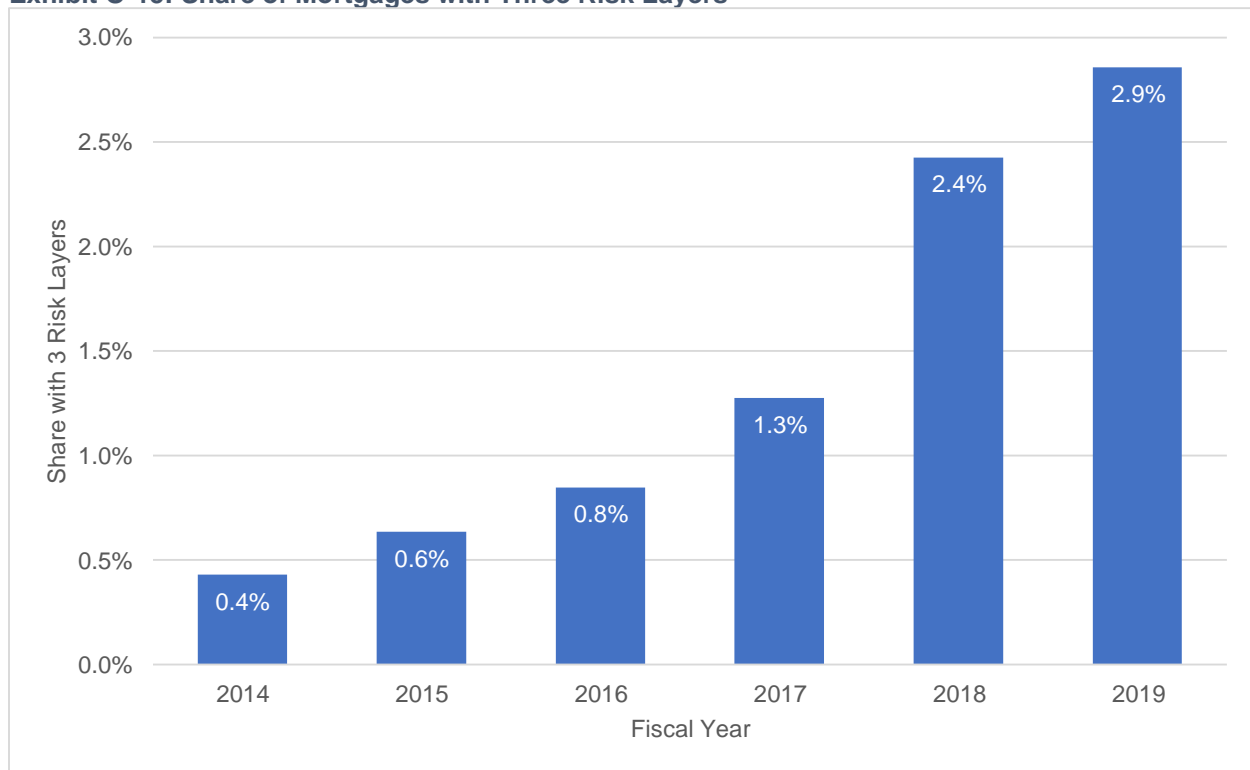
NOTE: This table does not include Streamline refinance mortgages.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-14 in Appendix B.

Participation by depository lenders continued to decline: The share of FHA-insured mortgages originated by depository institutions has continued to decrease since FY 2011, as illustrated in Exhibit O-14. In FY 2019, depository lenders accounted for 13.64 percent of endorsement activity, compared to 40.82 percent in FY 2011.

Reduced participation by depository institutions may limit opportunities for borrowers to access FHA-insured mortgages. While meeting FHA requirements, non-depository lenders typically hold less capital than depository institutions participating in FHA, and are subject to different regulatory regimes. The dearth of participation by depositories also affects the diversity and strength of counterparties working with FHA. FHA must strike a better balance in doing business with both depository and non-depository lenders, and has recently taken several actions to address this challenge. Please refer to Chapter III for more detail.

Exhibit O-15: Share of Mortgages with Three Risk Layers

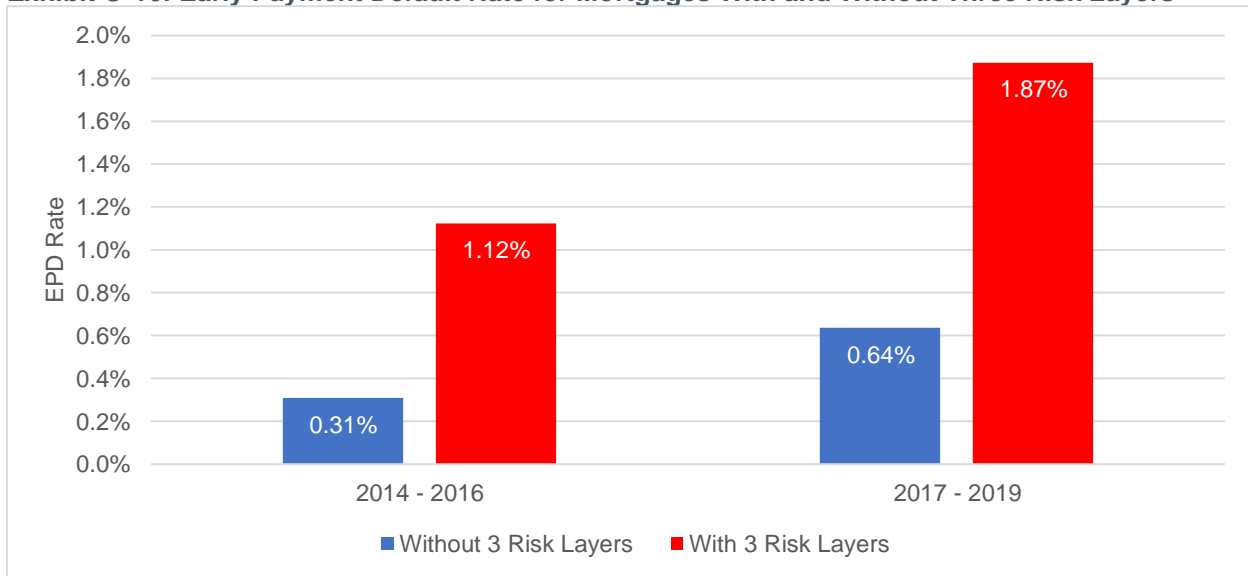
SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-12 in Appendix B.

Extreme risk layering is on the rise: The preceding sections (specifically, Exhibits O-11 through O-13) identified a number of emerging risks that FHA continues to monitor. While each risk attribute taken by itself can be managed through other compensating factors, mortgages with more than one of these risk factors, which is referred to as risk layering, typically default at higher rates. The incidence of extreme risk layering is on the rise, as shown by Exhibit O-15, which shows the share of mortgages endorsed with the following three risk layers:

- DTI greater than 50%
- Less than 2 months reserves
- Less than 640 credit score

While the volume of loans is still small, the trend of FHA-insured mortgages with extreme risk layering is increasing.

Exhibit O-16: Early Payment Default Rate for Mortgages With and Without Three Risk Layers



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-13 in Appendix B.

Early performance of loans with extreme risk layers is three times worse than the population without the three risk layers, as shown by Exhibit O-16, above. Further, early performance is significantly worse for loans with extreme risk layers that have been originated in more recent years.

Report Structure

The remainder of this report is structured as follows:

- Chapter I presents a summary of the insurance portfolios for both the Forward mortgage Program and the HECM program. The chapter includes notable trends affecting the risk characteristics for new endorsements to the MMI Fund from both programs during FY 2019.
- Chapter II contains an analysis of the performance of the MMI Fund, which includes a detailed breakdown of the MMI Fund Capital Ratio and the stand-alone capital ratios for the Forward and HECM portfolios. This chapter discusses best practice methods to manage the capital position of the Fund.
- Chapter III provides an overview of the policy changes that FHA’s Office of Single Family Housing made in 2019 to continue to facilitate the availability of affordable mortgage financing options while accounting for risk to the MMI Fund. Single Family’s policy changes encourage greater participation of depository institutions in our programs, expand the number of Condominiums eligible for an FHA loan, and strengthen our HECM program. FY 2019 is also the year where FHA began an IT Modernization effort that will streamline and modernize our outdated systems to make our business process more efficient and less costly.

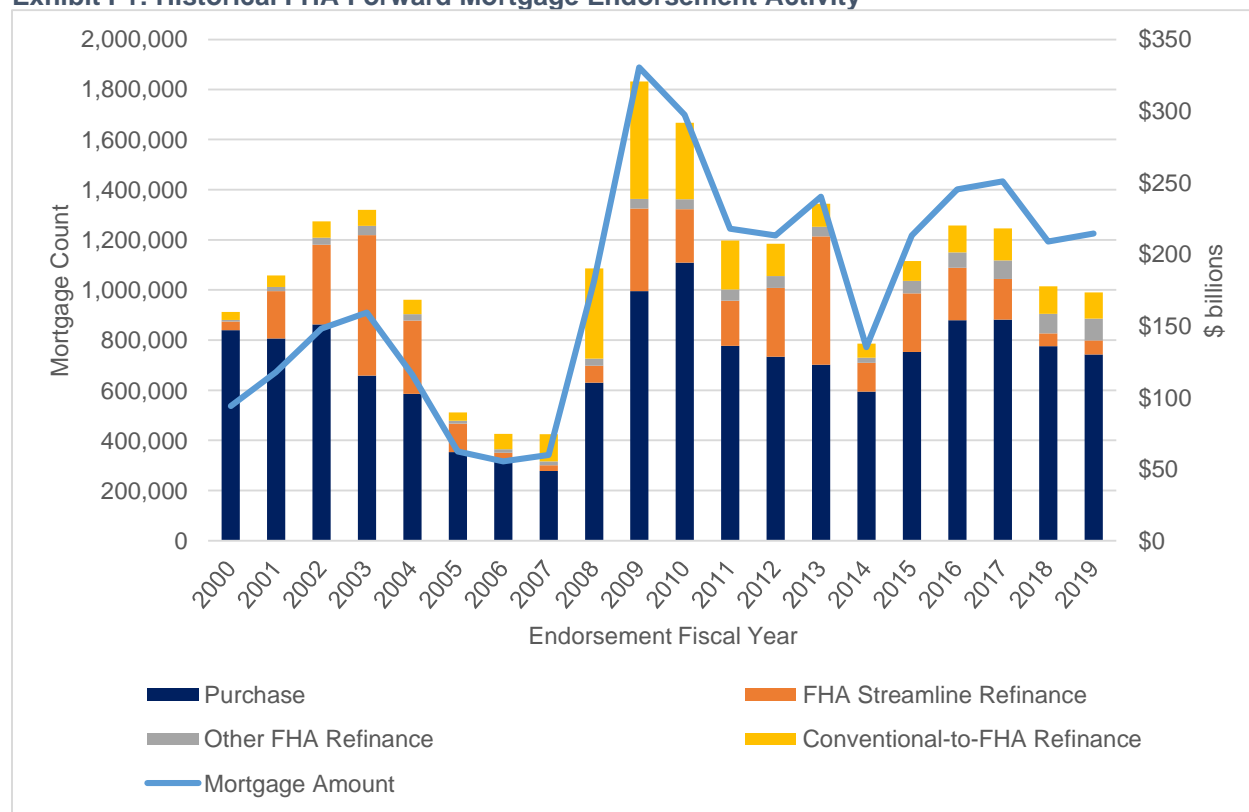
Chapter I: FHA Single Family Mortgage and Borrower Characteristics

FHA Forward Mortgage Program: New Endorsement Trends and Composition

Through its Title II forward mortgage insurance programs, FHA plays an important role in the single-family residential mortgage market. FHA insurance facilitates the availability of mortgage credit for the purchase of a home or to refinance an existing mortgage and includes insurance on both fixed- and adjustable-rate mortgages. By absorbing mortgage credit risk for lenders, FHA insurance expands liquidity and facilitates access to secondary market securitization. Borrowers and lenders rely more heavily on FHA-insured mortgages when access to other sources of mortgage financing is constrained, such as during the 2008 financial crisis when FHA played a substantial counter-cyclical role.

In addition, some borrowers may choose FHA insurance because it provides more flexible underwriting requirements and more attractive or affordable terms than alternatives available in the market. As a result, FHA-insured mortgages play a major role for borrowers traditionally underserved by the conventional mortgage market, with a majority of purchase transaction endorsements serving first-time homebuyers. FHA-insured mortgages also continue to serve as an important source of financing for minority homebuyers.

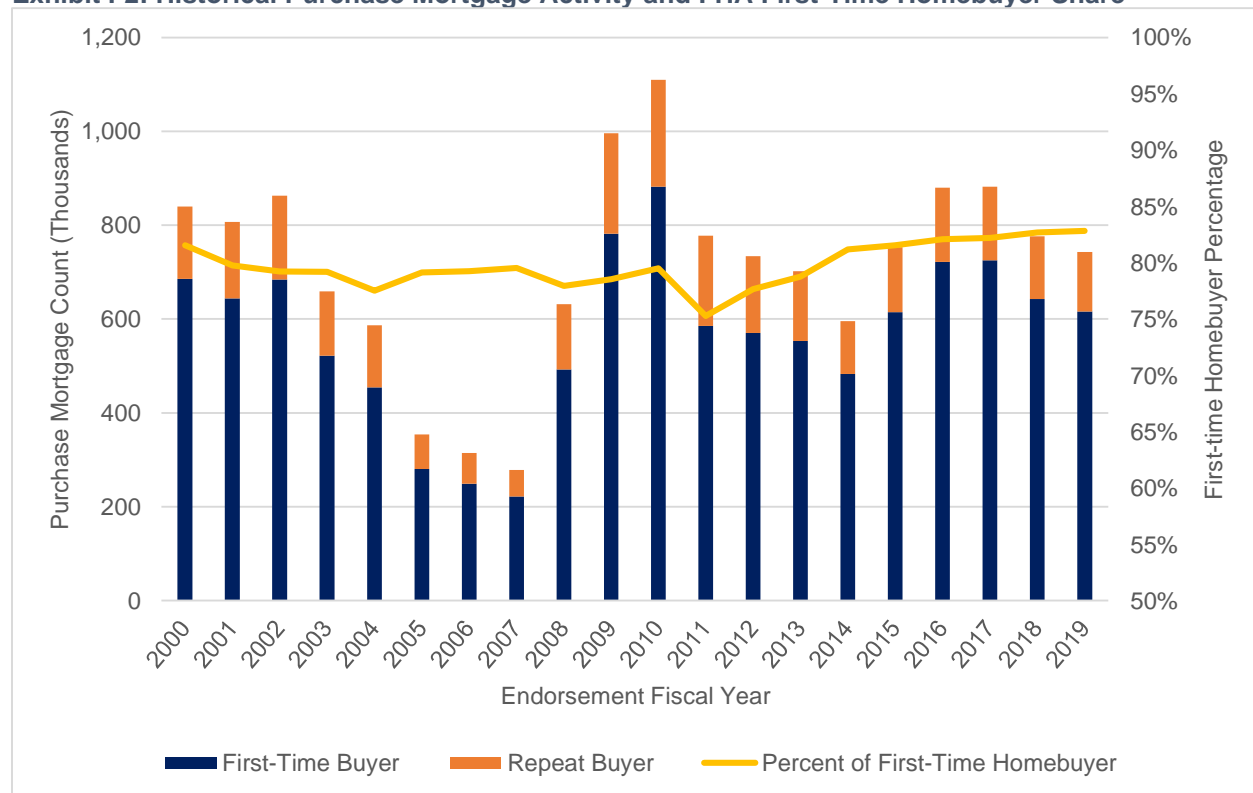
As mentioned in the Overview, FHA has taken a number of policy measures to strengthen the MMI Fund, including lender certifications, defect taxonomy, improvements to TOTAL Scorecard, changes to cash-out refinance mortgages, and changes to the HECM program. Please see Chapter III for an in-depth explanation of these changes.

Exhibit I-1: Historical FHA Forward Mortgage Endorsement Activity

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-1 in Appendix B.

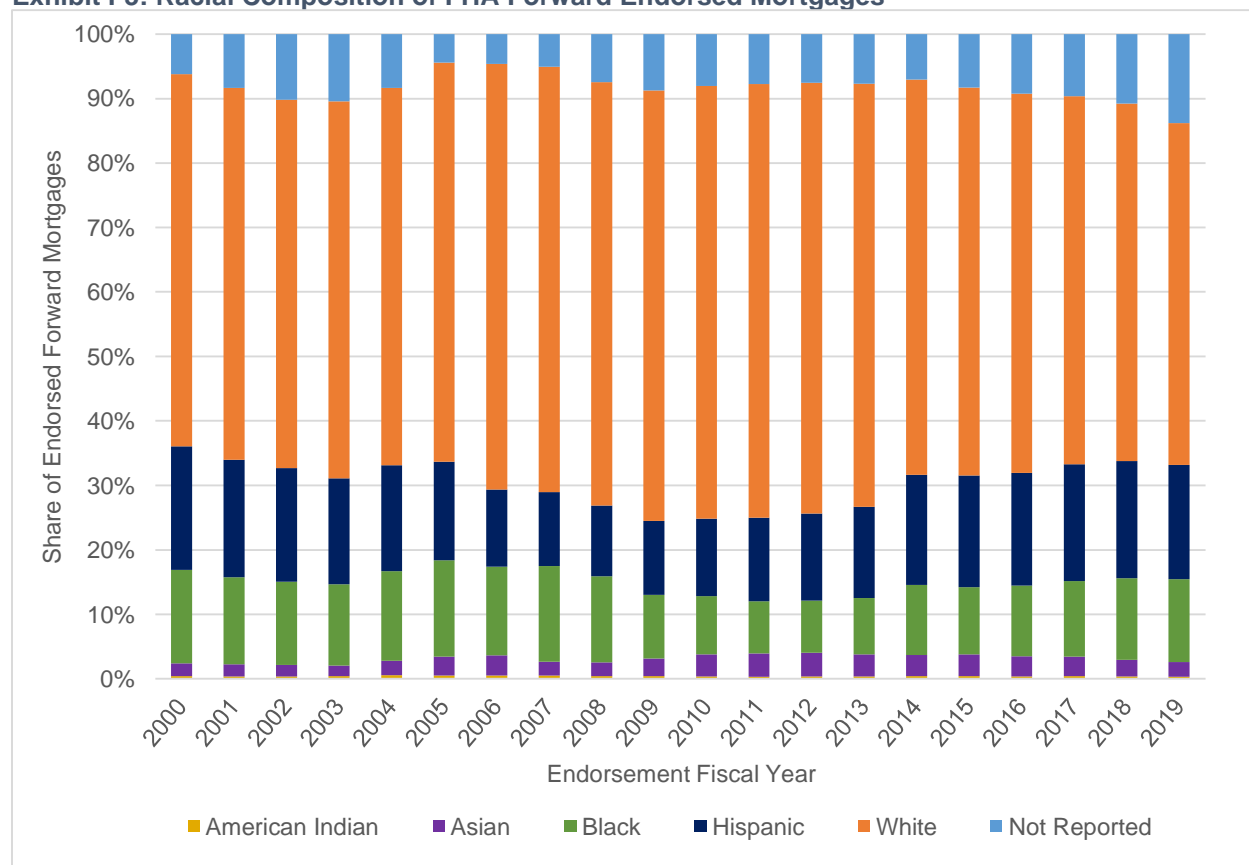
Exhibit I-1 provides an historical overview of FHA Forward mortgage endorsements by purpose and the aggregate original mortgage amount of endorsed mortgages for the last 19 fiscal years. In FY 2019, FHA endorsed 990,429 home mortgages through its forward mortgage program, including 743,280 purchase transaction mortgages. Of these purchase mortgages, 615,711 served first-time homebuyers.⁵ Total new endorsements by count in FY 2019 were lower than in FY 2018. The aggregate original mortgage amount of all endorsed forward mortgages – purchase and refinance – in FY 2019 totaled \$214.62 billion, up from \$209.05 billion in FY 2018. The average forward mortgage amount of FHA endorsements in FY 2019 was \$216,695, an increase of 5.17 percent from the FY 2018 average of \$206,041.

⁵ A first-time homebuyer is an individual who has had no ownership in a principal residence during the three-year period ending on the date of purchase of the property. This includes a spouse (if either meets the above test, they are considered first-time homebuyers.)

Exhibit I-2: Historical Purchase Mortgage Activity and FHA First-Time Homebuyer Share

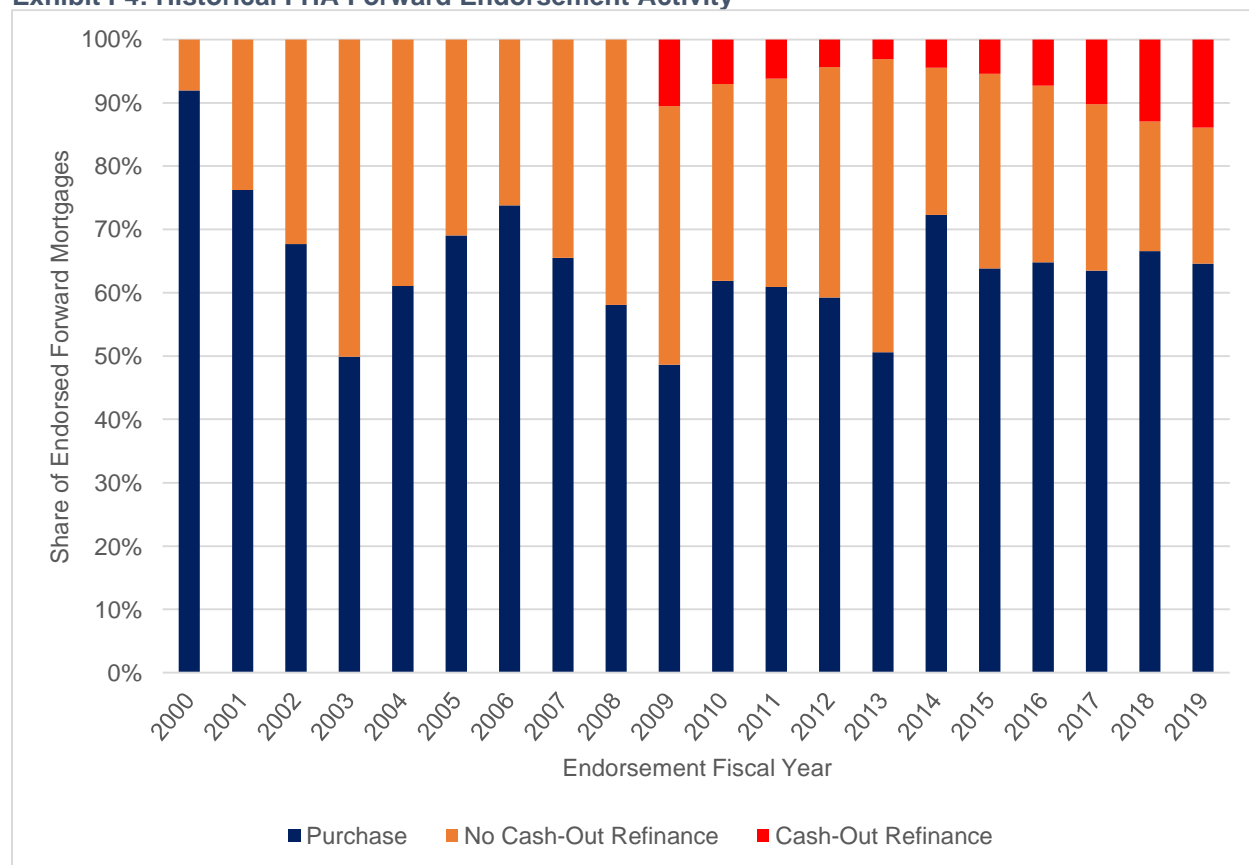
SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-2 in Appendix B.

As illustrated by Exhibit I-2, despite the historical variability in the total number of home purchase endorsements, first-time homebuyers consistently represent the majority of all FHA Forward mortgage purchase transactions. The percent of forward purchase mortgages insured serving first-time homebuyers in FY 2019 was 82.84 percent, consistent with FY 2018 levels. The average age of FHA first-time homebuyers increased from 33.49 years in FY 2001 to 37.72 years in FY 2019.

Exhibit I-3: Racial Composition of FHA Forward Endorsed Mortgages

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-3 in Appendix B.

FHA-insured mortgages continue to serve as an important source of financing for minority homebuyers. Exhibit I-3 shows that for FY 2019, 33.19 percent of FHA endorsements served minority borrowers, down slightly from 33.75 percent in FY 2018. For FY 2019, the composition of minority borrowers was: 17.75 percent Hispanic; 12.83 percent Black; 2.27 percent Asian; and 0.34 percent American Indian. Based on CY 2018 Home Mortgage Disclosure Act (HMDA) data, FHA-endorsed mortgages served 30.95 percent of all minority borrowers obtaining a purchase transaction mortgage.

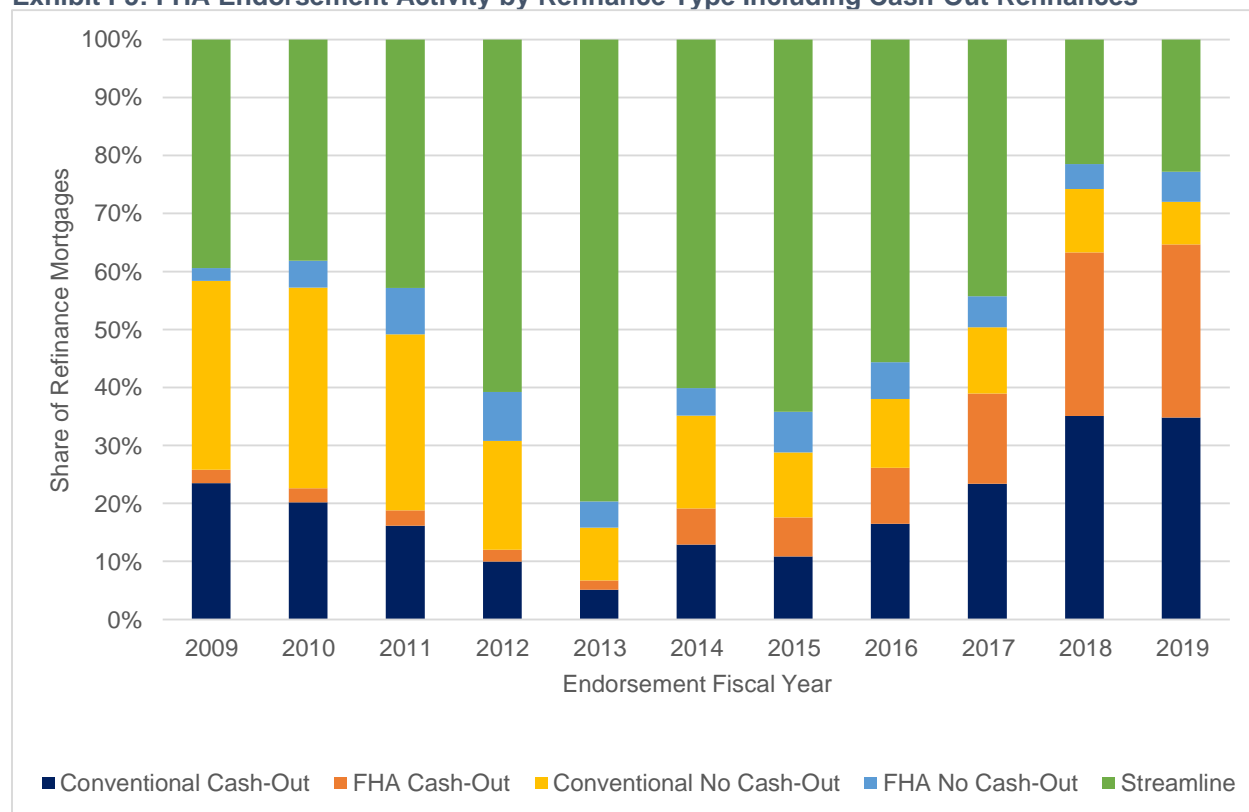
Exhibit I-4: Historical FHA Forward Endorsement Activity

NOTE: Cash-Out Refinance data is not available prior to FY 2009.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-4 in Appendix B.

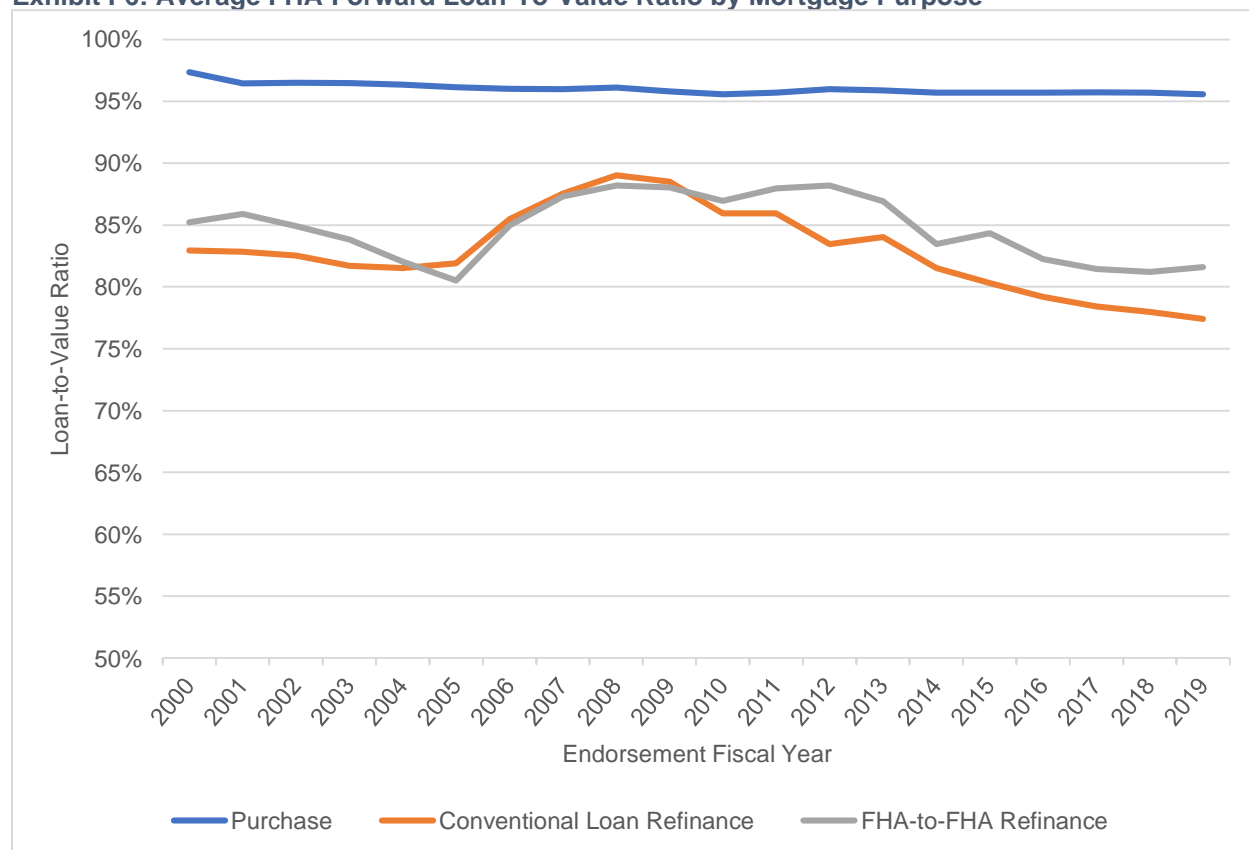
In FY 2019, FHA-insured purchase transaction mortgages represented 75.05 percent of all FHA-insured endorsements, a decrease of 1.46 percentage points from FY 2018. The share of cash-out refinance mortgages has increased from 14.87 percent in FY 2018 to 16.14 percent in FY 2019. A cash-out refinance transaction allows the borrower to draw from the accumulated equity in the home by taking out a mortgage for a larger amount, enabling the borrower to pay off their current mortgage and obtain cash at closing.

Exhibit I-5: FHA Endorsement Activity by Refinance Type Including Cash-Out Refinances

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-5 in Appendix B.

Exhibit I-5 provides a detailed breakdown of FHA refinance mortgage endorsements by type of refinance transaction. In FY 2019, cash-out refinance transactions represented 64.67 percent of all of FHA refinance transactions, a slight increase from the FY 2018 level of 63.31 percent, however, still significantly higher than in recent years. An additional 7.31 percent of FHA-insured refinance transactions were mortgages refinancing into an FHA-insured mortgage from the conventional market without taking cash out, which is a decrease from 10.87 percent in FY 2018.

The share of refinances with cash-out are a larger portion of FHA's refinance insurance endorsements due in large part to increasing home prices over the last few years, and the corresponding higher levels of home equity, and a decrease in other forms of refinance activity.

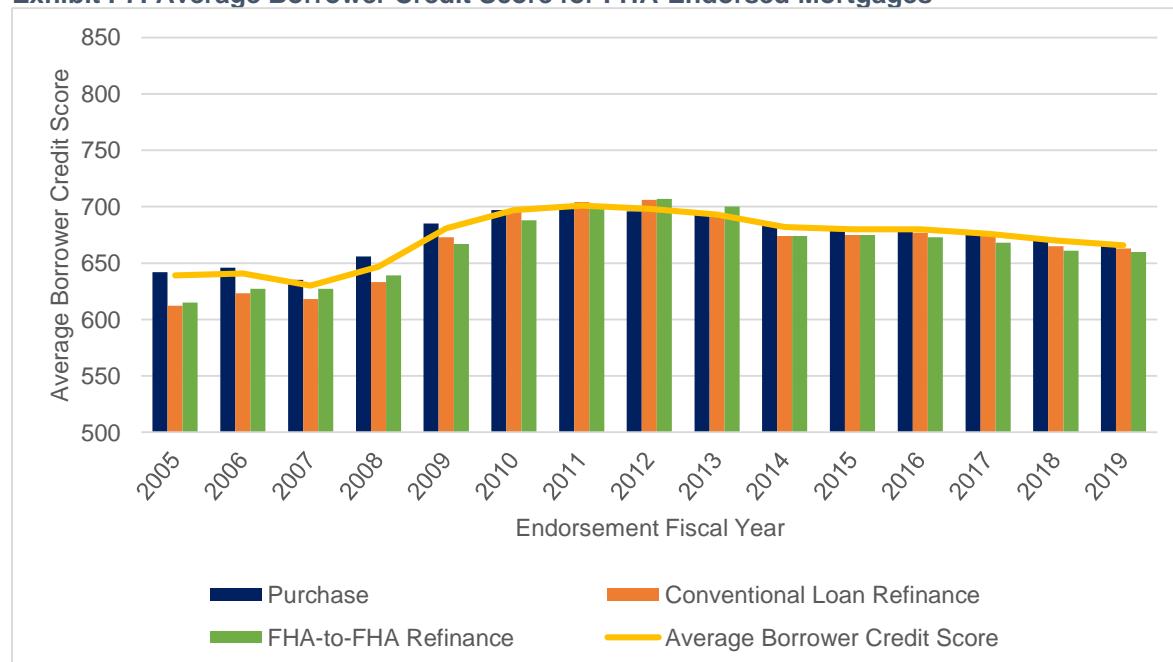
Exhibit I-6: Average FHA Forward Loan-To-Value Ratio by Mortgage Purpose

NOTE: In accordance with statutory requirements for determining eligibility of mortgages for FHA insurance, FHA measures loan-to-value without including any Mortgage Insurance Premium financed into the mortgage balance. Exhibit I-7 includes only fully underwritten mortgages and excludes Streamline Refinances.

SOURCE: US Department of HUD/FHA, October 2019.

Refer to data table B-6 in Appendix B.

The average Loan-to-Value (LTV) ratio for purchase transactions in FY 2019 was 95.58 percent, relatively unchanged from the FY 2018 average LTV ratio of 95.70 percent. In accordance with statutory requirements for determining eligibility of mortgages for FHA insurance, FHA measures LTV without including any Mortgage Insurance Premium financed into the mortgage balance. As Exhibit I-6 illustrates, the average LTV ratio for FHA-insured purchase transaction mortgages has remained relatively stable since 2001. The average LTV ratio for both Conventional-to-FHA and FHA-to-FHA refinance transactions continues to decrease from the highs of FY 2007 through FY 2013, with Conventional-to-FHA refinances at 77.41 percent, and FHA-to-FHA refinances at 81.62 percent in FY 2019. House price appreciation (HPA) and an increase in endorsements of FHA cash-out refinance mortgages, which were limited to a maximum LTV ratio of 85 percent for the majority of FY 2019, are contributing factors to the declining average LTV ratio of new refinance endorsements.

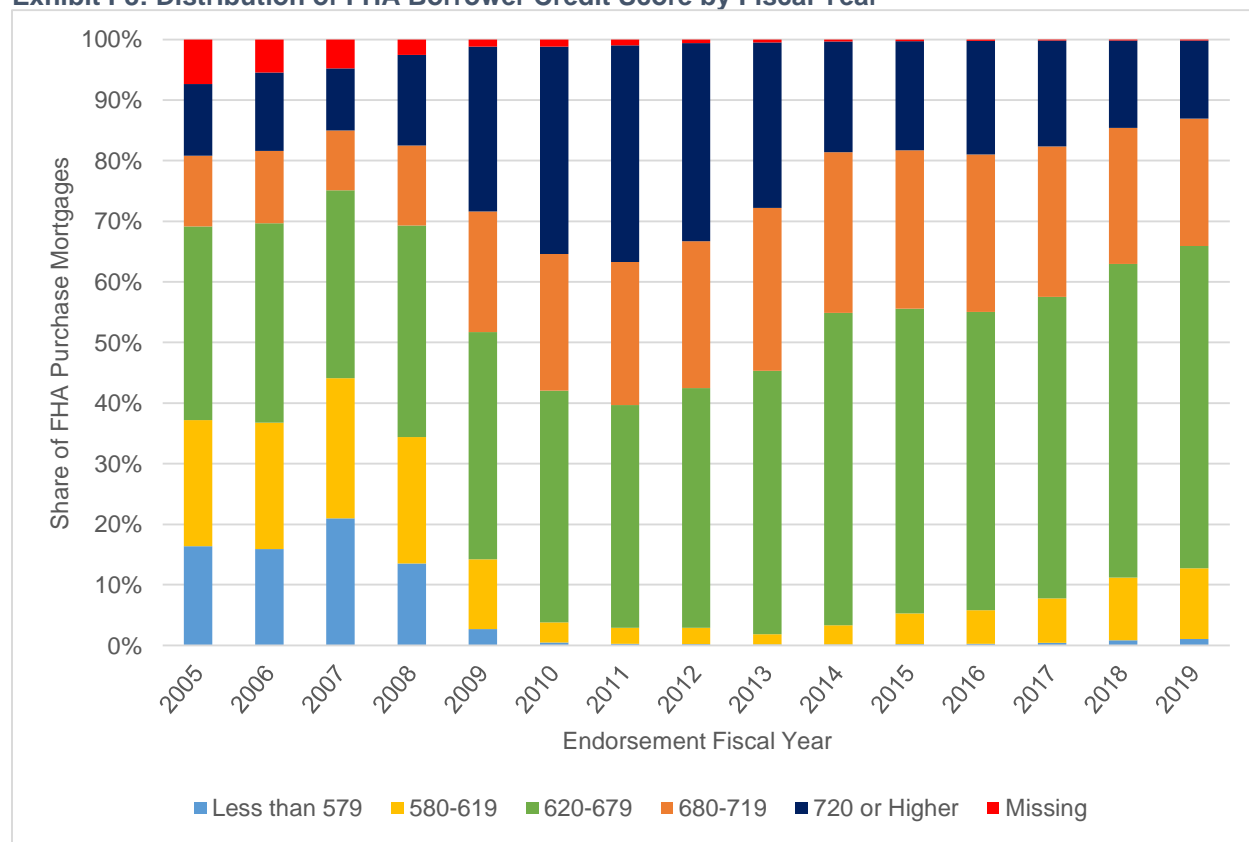
Exhibit I-7: Average Borrower Credit Score for FHA-Endorsed Mortgages

NOTE: Borrower credit score data was not collected prior to 2005 and does not include Streamline Refinance mortgages.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-7 in Appendix B.

Credit score is an indicator of mortgage credit risk. As reflected in Exhibit I-7, FHA's average credit score has decreased steadily since FY 2011 when FHA was serving a significant counter-cyclical role in the market. The average borrower credit score for an FHA-insured mortgage in FY 2019 was 666, decreasing from 670 in FY 2018, and the lowest average credit score for FHA-insured mortgages since 2008. In addition to being lower overall, average borrower credit scores are lower, compared to FY 2018, within each product type (purchase transactions, Conventional-to-FHA refinance transactions, and FHA-to-FHA refinance transactions). Changes made to FHA's Technology Open to Approved Lenders (TOTAL) Mortgage Scorecard in FY 2019 are expected to mitigate further decreases in average borrower credit scores. It is still too early to determine what effect the changes to TOTAL have made to the overall risk of 2019 originations. FHA will continue to monitor declining credit scores for new FHA endorsements to determine the risk they pose to the MMI Fund.

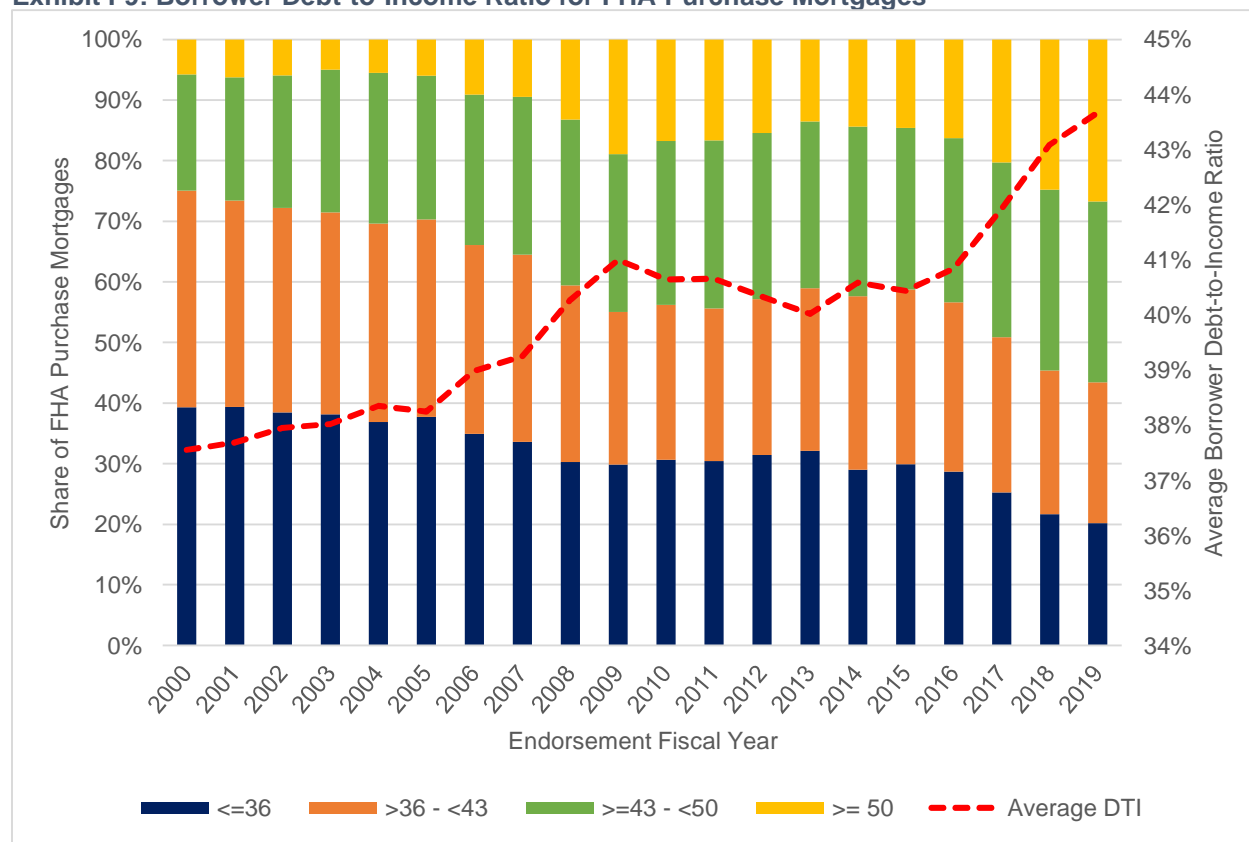
Exhibit I-8: Distribution of FHA Borrower Credit Score by Fiscal Year

NOTE: Borrower credit score data was not collected prior to 2005 and does not include Streamline Refinance mortgages.

SOURCE: U.S. Department of HUD/FHA, October 2019.

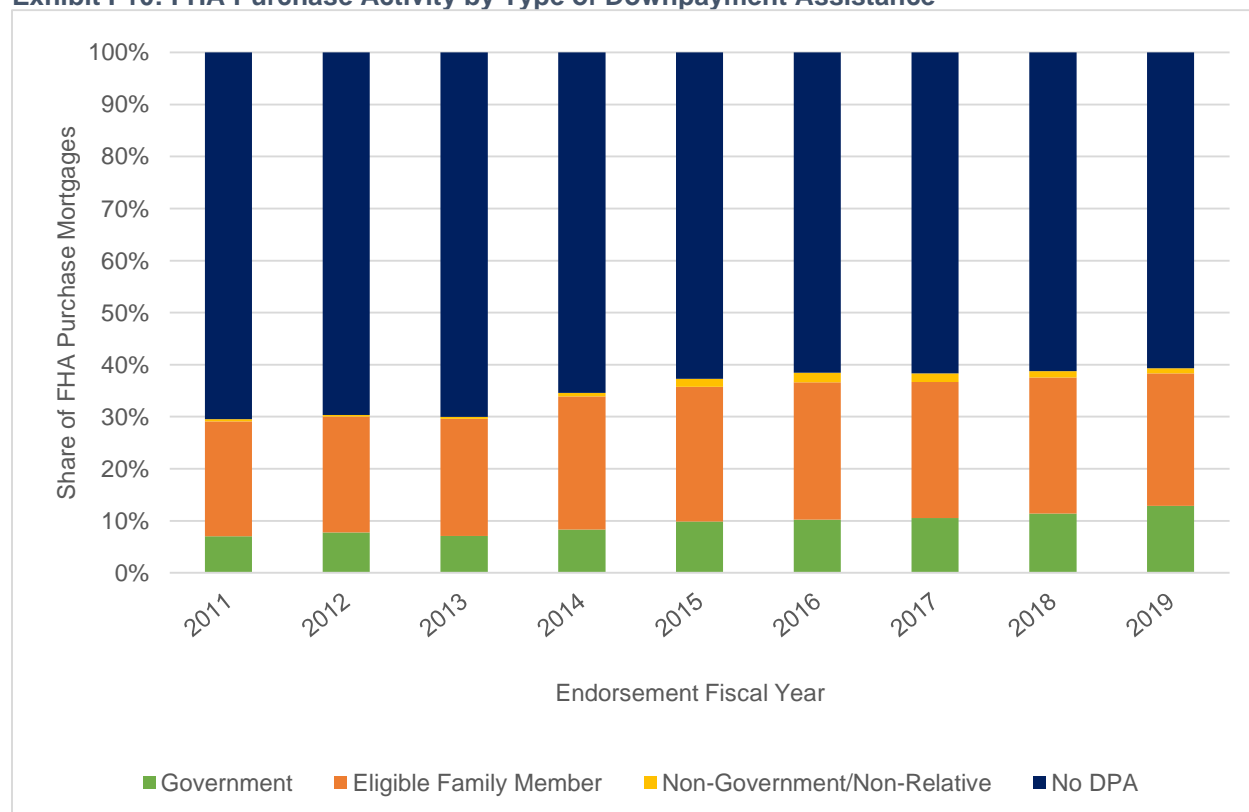
Refer to data table B-8 in Appendix B.

Exhibit I-8 illustrates the distribution of credit scores for borrowers obtaining FHA endorsements. Since FY 2013, the share of endorsements with credit scores of 619 and below has increased steadily and represented 12.73 percent of endorsements in FY 2019. The share of endorsements with credit scores between 620 and 679 also increased from 51.77 percent in FY 2018 to 53.18 percent in FY 2019. The share of endorsements on mortgages with credit scores of 720 or higher decreased from 14.39 percent in FY 2018 to 12.89 percent in FY 2019. FHA continues to actively monitor changes in credit score distributions, including the risk larger distributions of lower credit scores could pose to the MMI Fund. Changes to FHA's TOTAL Mortgage Scorecard may mitigate some of the risks inherent in endorsements of mortgages for borrowers with very low credit scores.

Exhibit I-9: Borrower Debt-to-Income Ratio for FHA Purchase Mortgages

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-9 in appendix B.

The average debt-to-income (DTI) ratio for borrowers with FHA-insured purchase transaction mortgages continues to rise to historic highs, with an average DTI ratio of 43.67 percent in FY 2019, as illustrated in Exhibit I-9. The proportion of borrowers with DTI ratios above 50 percent in FY 2019 was at 26.73 percent – the highest since FY 2000. The percentage of borrowers with DTI ratios greater than 43 percent rose to 56.55 percent in FY 2019 from 54.61 percent in FY 2018, an increase of 1.94 percentage points.

Exhibit I-10: FHA Purchase Activity by Type of Downpayment Assistance

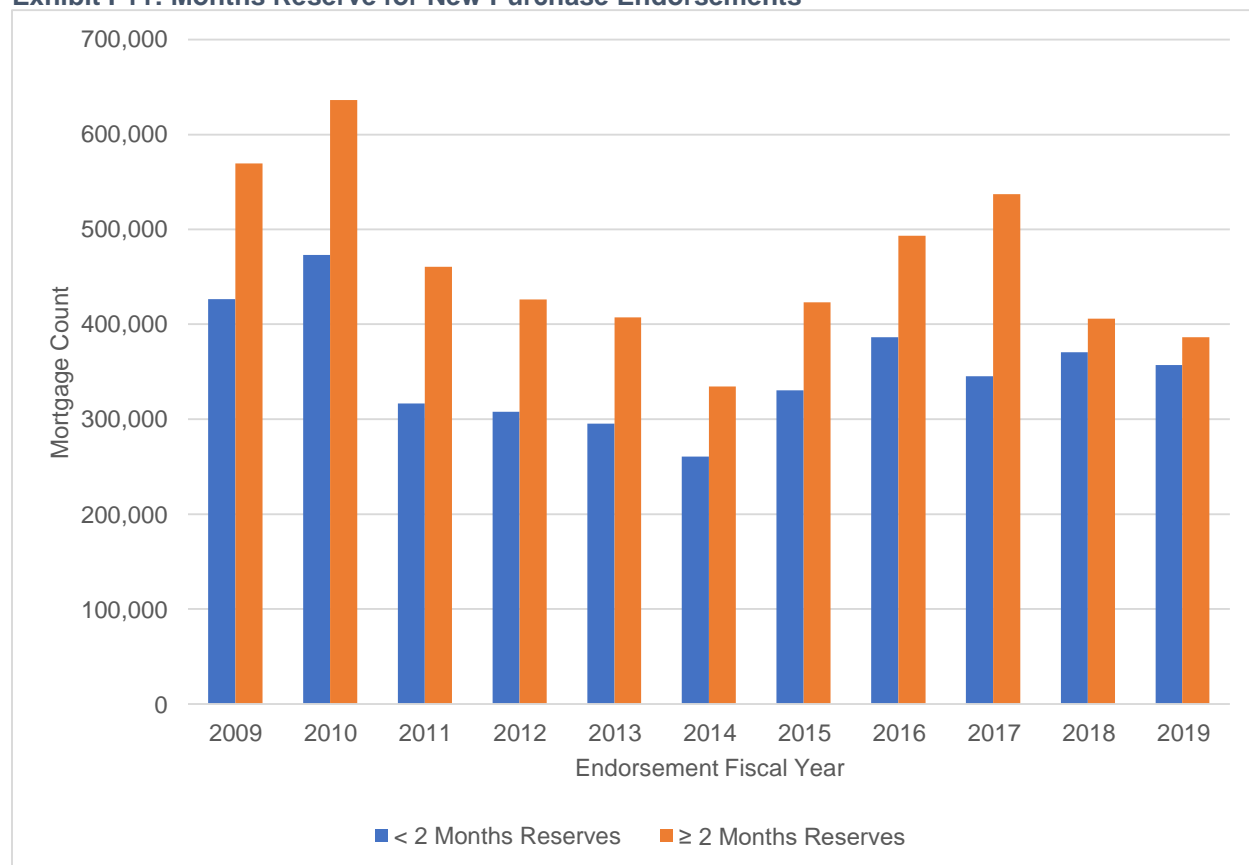
NOTE: Data does not account for instances where downpayment assistance data was missing from origination data submitted to FHA.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-10 in Appendix B.

FHA insures mortgages with downpayment assistance (DPA) funds from eligible sources, including governmental entities or eligible family members. As Exhibit I-10 shows, 39.34 percent of FHA purchase transaction mortgages insured in FY 2019 included DPA, up from 38.79 percent in FY 2018. Eligible family member gift funds were the largest source of DPA used by borrowers with FHA-insured mortgages, representing 25.41 percent of FHA's total Forward mortgage purchase volume in FY 2019. The second largest source of DPA funds came from governmental entities,⁶ representing 12.91 percent of FY 2019 forward mortgage endorsements.

⁶ Borrowers accepting downpayment assistance from a governmental entity may execute a note and security instrument agreeing to repay the assistance under specified conditions, unlike a gift from a relative.

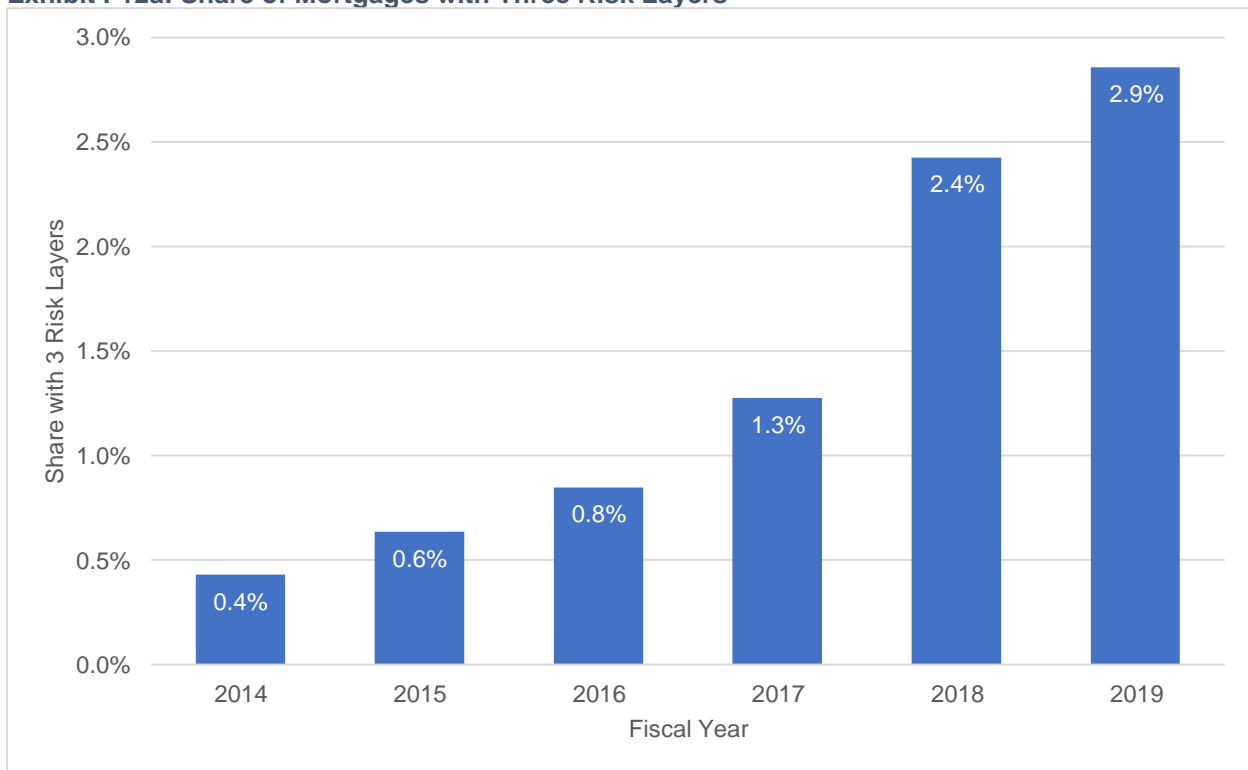
Exhibit I-11: Months Reserve for New Purchase Endorsements

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-11 in Appendix B.

Exhibit I-11 shows, by count, the number of purchase transaction endorsements with less than two months of reserves⁷ compared to those with two or more months of reserves. Nearly 48 percent of FHA purchase transaction mortgage borrowers in FY 2019 had less than two months of reserves at the time of home purchase. This percentage is up from a low of approximately 39 percent in FY 2017 and the highest percentage since FY 2009. Reserves at closing can act as mitigants towards unexpected expenses faced by borrowers.

⁷ Reserves are an amount of cash that a borrower is required to keep on hand after paying for the downpayment and closing costs, measured by the number of months of mortgage payments a borrower could pay using his or her financial assets.

Exhibit I-12a: Share of Mortgages with Three Risk Layers



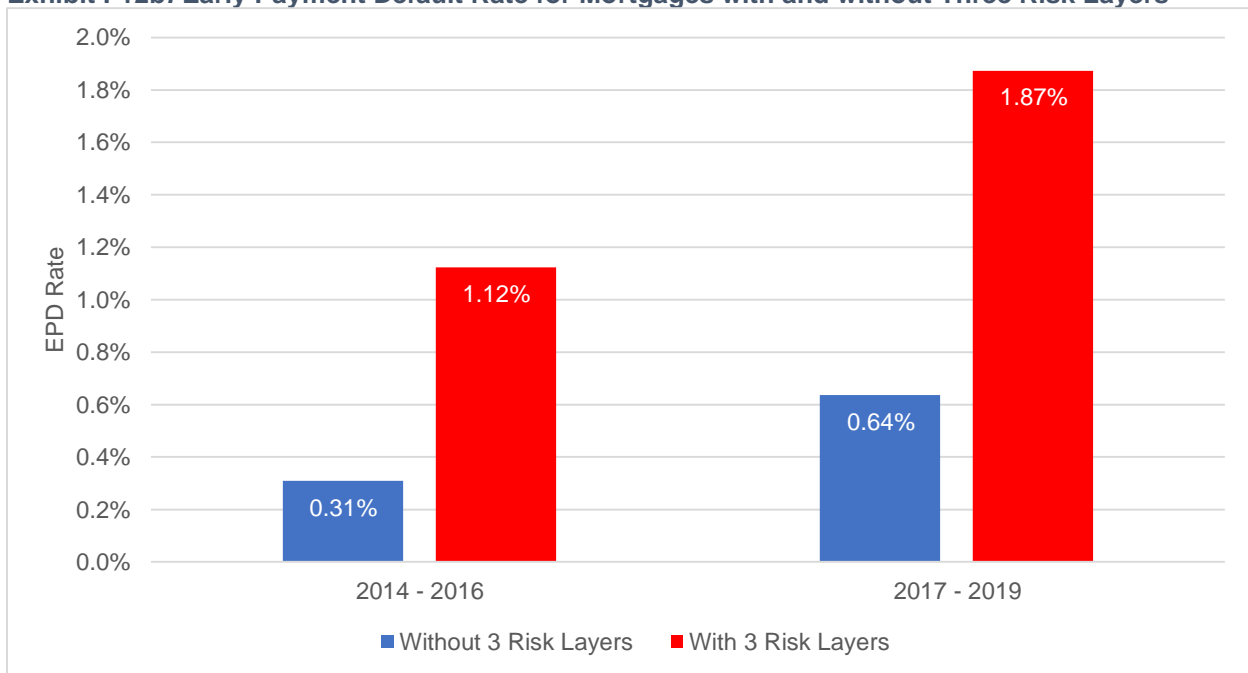
SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-12 in Appendix B.

The preceding sections identify a number of emerging risks that FHA continues to monitor. While each risk attribute taken by itself can be managed through other compensating factors, combining these risk factors (risk layering) typically results in significantly higher mortgage failure rates. As illustrated in Exhibit I-12a, the incidence of extreme risk layering is on the rise, evidenced by the share of purchase transaction mortgages with the following three risk layers:

- DTI greater than 50%
- Less than two months reserves
- Less than 640 credit score

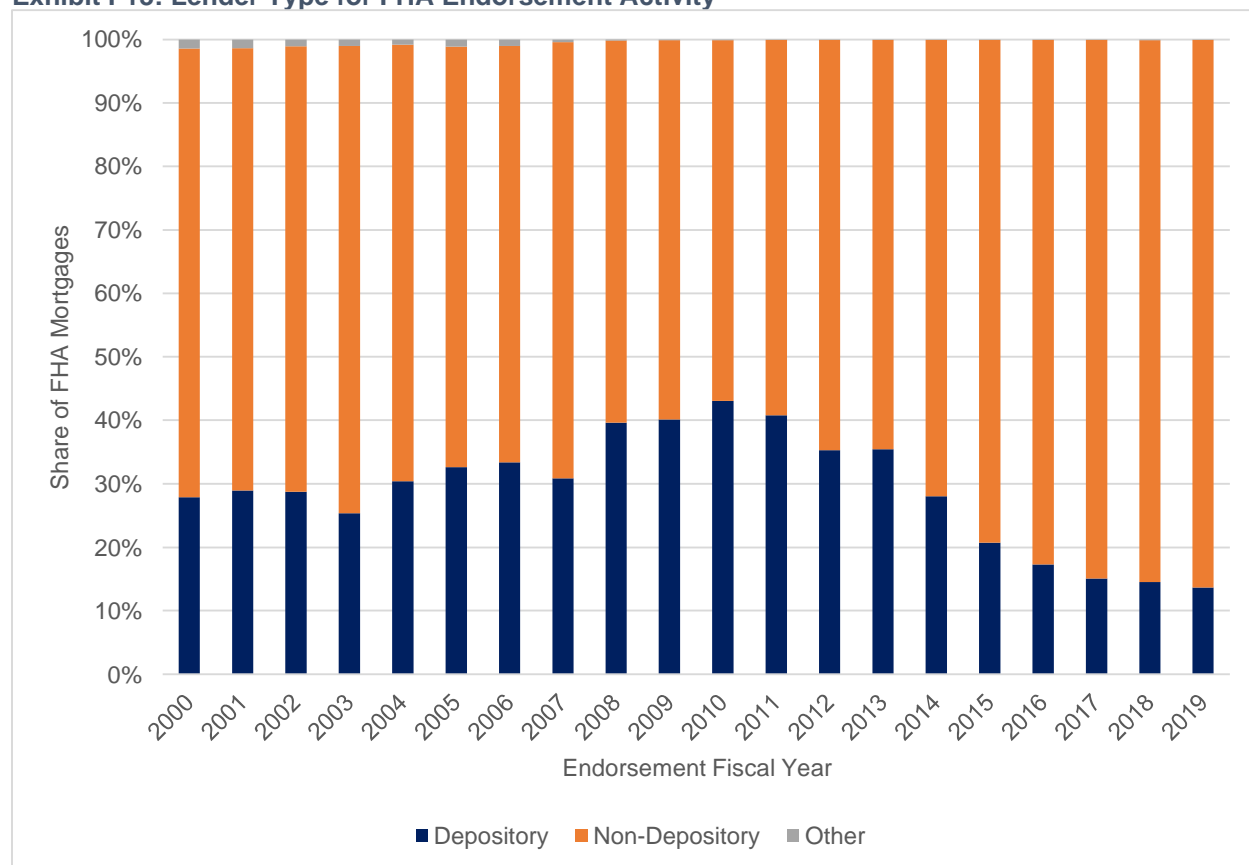
While the volume of loans with extreme risk layering is currently small, the trend is clear. Further, for loans with extreme risk layers originated in more recent years, early performance is significantly worse, as shown by Exhibit I-12b.

Exhibit I-12b: Early Payment Default Rate for Mortgages with and without Three Risk Layers



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-13 in Appendix B.

Early performance of loans with extreme risk layers is 3 times worse than the population without the three risk layers, as shown by Exhibit I-12b, above. Further, early performance is significantly worse for loans with extreme layers that have been originated in more recent years.

Exhibit I-13: Lender Type for FHA Endorsement Activity

NOTE: This table does not include Streamline refinance mortgages.

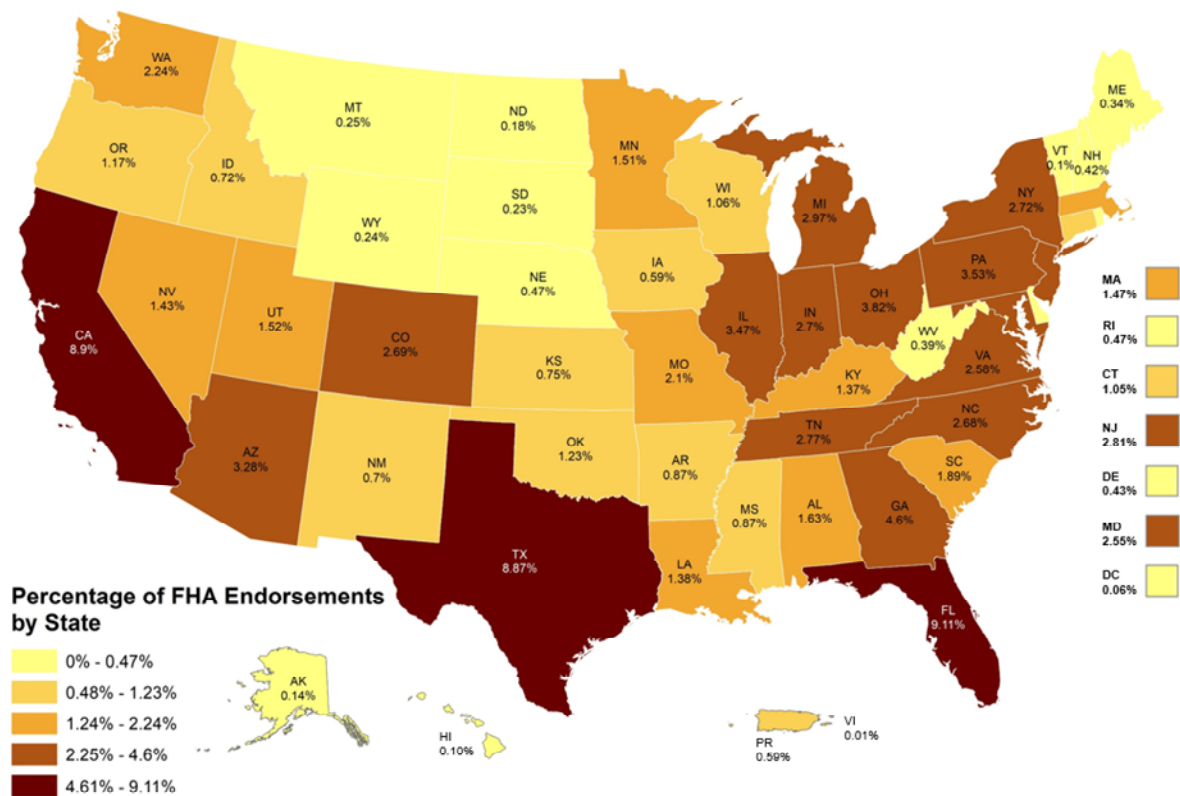
SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-14 in Appendix B.

The composition of FHA's new endorsements by lender type, as illustrated in Exhibit I-13, has been changing over the last eight years. In FY 2019, non-depository lenders originated mortgages representing 86.27 percent of all FHA forward endorsements, up from 56.80 percent in FY 2010. Over the same period, the share of endorsements originated by depository lenders decreased steadily from its peak of 43.05 percent in FY 2010 to 13.64 percent in FY 2019. Depository institutions have decreased their FHA participation for a number of reasons, including perceived enforcement risk.

As noted in the Overview to this Report (Exhibit O-14), reduced participation by depository institutions may limit opportunities for borrowers to access FHA-insured mortgages and the lack of diversity and strength of FHA counterparties may add risk to the MMI Fund. FHA must strike a better balance in doing business with both depository and non-depository lenders and has recently taken several actions to address this challenge. Please refer to Chapter III for more detail.

Exhibit I-14: FY 2019 FHA Forward Endorsement Concentration by State



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-15 in Appendix B.

Exhibit I-14 shows the percentage of FY 2019 endorsements by state. The three most populous states—California, Texas, and Florida—are also the states that had the highest counts of FHA-insured mortgage endorsements in FY 2019, totaling 26.87 percent of Forward endorsements. Additionally, more than half of all Forward endorsements – 51.36 percent – were concentrated in just ten states. However, the correlation between population and FHA mortgage concentration does not hold for every state. Factors such as property values in relation to FHA Mortgage Limits may influence a state’s concentration of FHA business.

Forward Mortgage Program: Portfolio Overview and Performance Trends

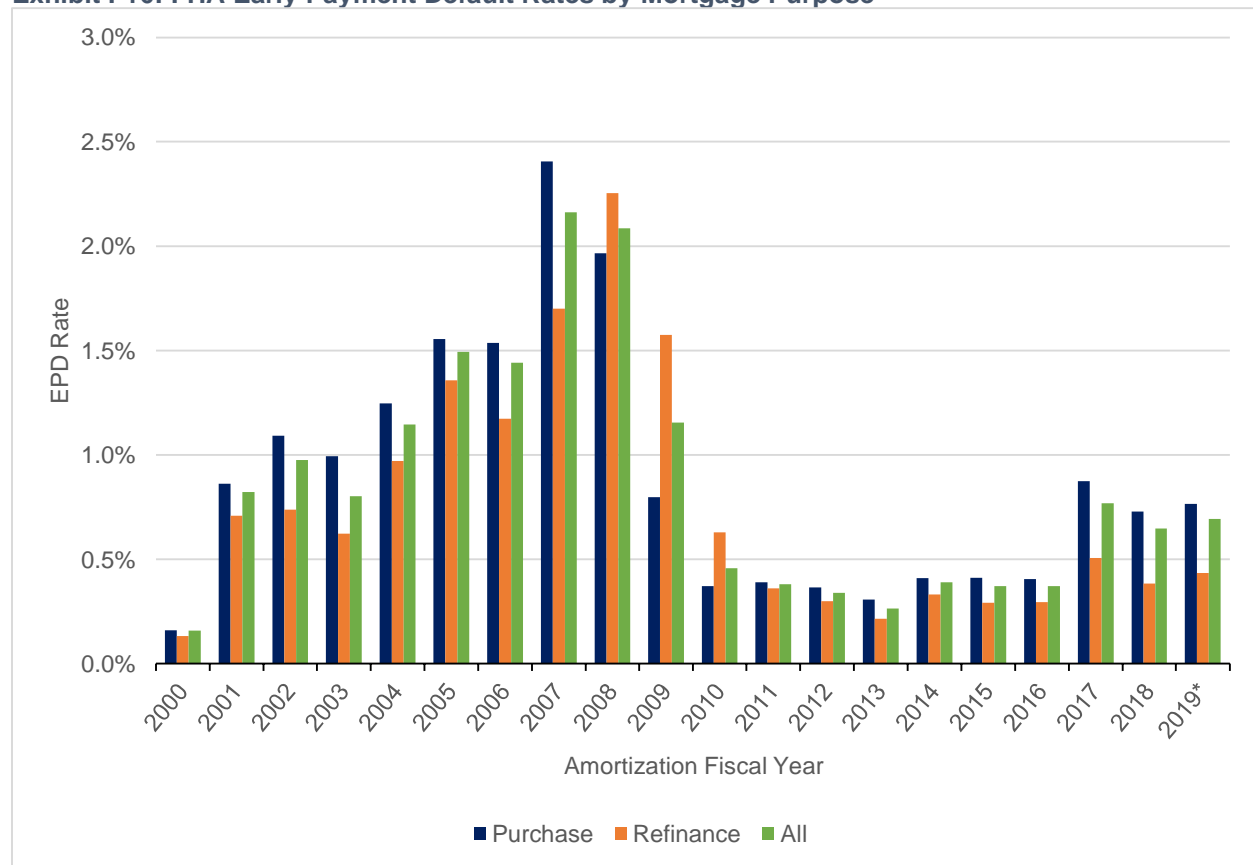
Exhibit I-15: Insurance-in-Force, Unpaid Principal Balance, and Seriously Delinquent by Vintage as of September 30, 2019

Endorsement Fiscal Year	Insurance-in-Force				Seriously Delinquent	
	Counts	IIF Share (Percent)	UPB (\$ millions)	UPB Share (Percent)	Counts	Rate (Counts)
Pre-2004	505,361	6.23	22,499	1.83	29,462	5.83
2004	132,991	1.64	9,375	0.76	8,052	6.05
2005	99,273	1.22	7,397	0.60	6,772	6.82
2006	78,773	0.97	6,605	0.54	6,525	8.28
2007	74,777	0.92	7,127	0.58	7,781	10.41
2008	175,458	2.16	19,520	1.59	18,411	10.49
2009	377,874	4.66	45,955	3.74	25,386	6.72
2010	481,919	5.94	58,163	4.74	22,315	4.63
2011	389,203	4.80	48,796	3.97	15,027	3.86
2012	481,306	5.94	62,593	5.10	15,534	3.23
2013	671,741	8.29	92,922	7.57	18,736	2.79
2014	319,121	3.94	39,813	3.24	15,668	4.91
2015	600,677	7.41	93,715	7.63	25,303	4.21
2016	871,787	10.75	149,941	12.21	31,946	3.66
2017	1,006,789	12.42	187,314	15.25	34,289	3.41
2018	886,793	10.94	172,988	14.09	27,499	3.10
2019	953,963	11.77	203,305	16.56	6,204	0.65
Total	8,107,806	100.00	1,228,028	100.00	314,910	3.88

NOTE: These mortgage counts and balances are active as of September 30, 2019. Portfolio UPB differs slightly from IIF amounts reported in Chapter 2.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Exhibit I-15 provides a breakdown of FHA Insurance-in-Force (IIF) by vintage, including the Serious Delinquency (SDQ) rate for each cohort. As of the end of FY 2019, the FHA Forward portfolio consisted of approximately \$1.23 trillion of IIF with an active mortgage count of 8,107,806, and an overall SDQ rate of 3.88 percent. The SDQ rate, a key indicator of portfolio performance, tracks the percentage of FHA-insured mortgages where the borrower is 90 or more days delinquent, including mortgages in foreclosure and bankruptcy. Although recent cohorts display a more favorable performance than older cohorts, readers should be cautioned that defaults and delinquencies in mortgage performance take time to season. As such, recent cohorts will likely show increasing SDQ rates.

Exhibit I-16: FHA Early Payment Default Rates by Mortgage Purpose

NOTE: FY 2019 data is through April 2019.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-16 in Appendix B.

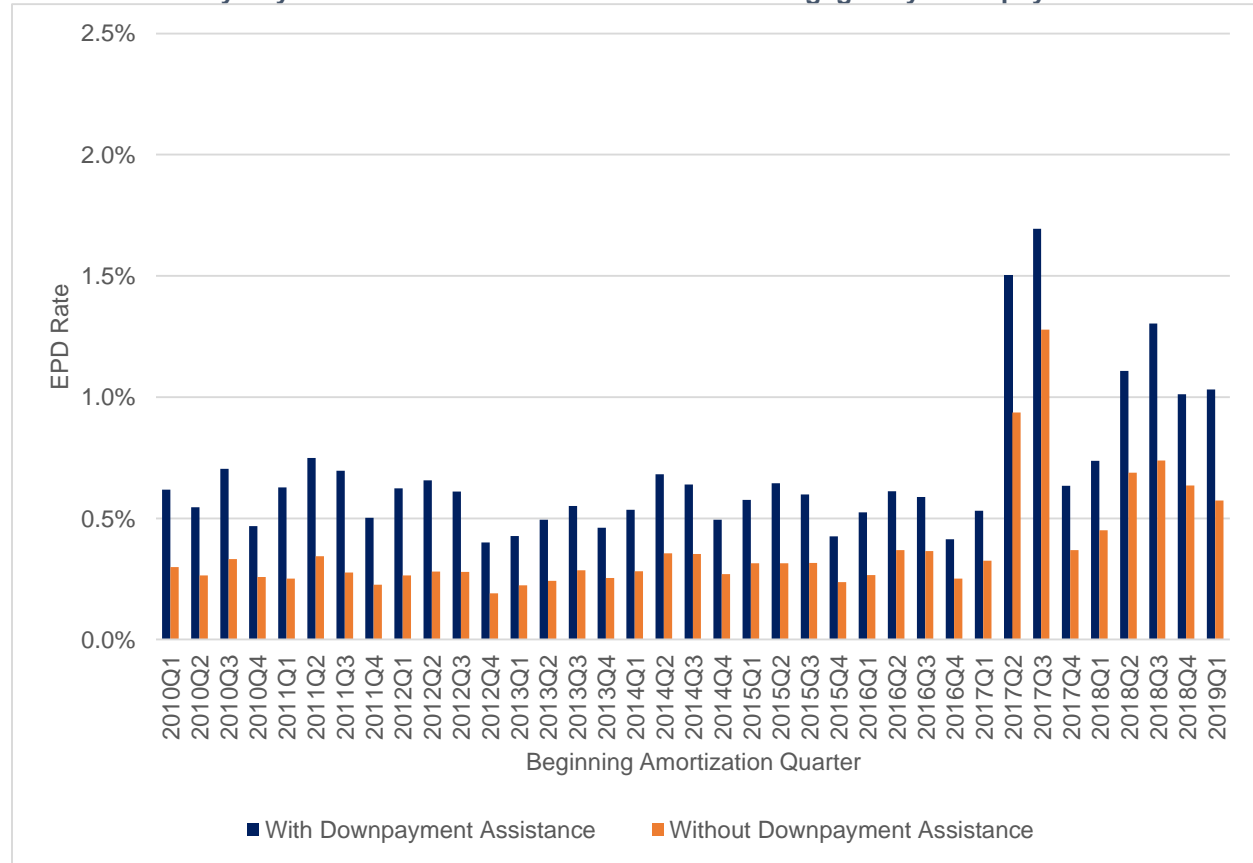
Early Payment Defaults (EPDs) are those FHA-insured mortgages where the borrower becomes 90 days or more delinquent on their mortgage within the first six payments. EPD rates (the percentage of EPDs that occur for each vintage) are reflective of the credit quality of new endorsements and serve as an important early indicator of mortgage performance. As illustrated in Exhibit I-16, beginning in FY 2010, EPD rates decreased to less than half of a percent for all mortgages and remained relatively low, until they rose sharply in FY 2017 due to the adverse impact of several natural disasters. Since FY 2017, EPD rates have remained elevated, likely due to the increase in lower credit score/high DTI makeup of new FHA endorsements.

Exhibit I-17: Historical Serious Delinquency Rates for FHA Mortgages

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-17 in Appendix B.

The Serious Delinquent Rate (SDQ rate) tracks the percentage of FHA-insured mortgages where the borrower is 90 or more days delinquent, including mortgages in foreclosure and bankruptcy, and is another key indicator of portfolio performance. Exhibit I-17 shows a significant improvement in the SDQ rate after rising substantially in the wake of the 2008 financial crisis and the proliferation of seller-funded DPA. The SDQ rate for FHA's Forward mortgage portfolio as of September 30, 2019 was 3.88 percent, down from 4.11 percent at the end of FY 2018.

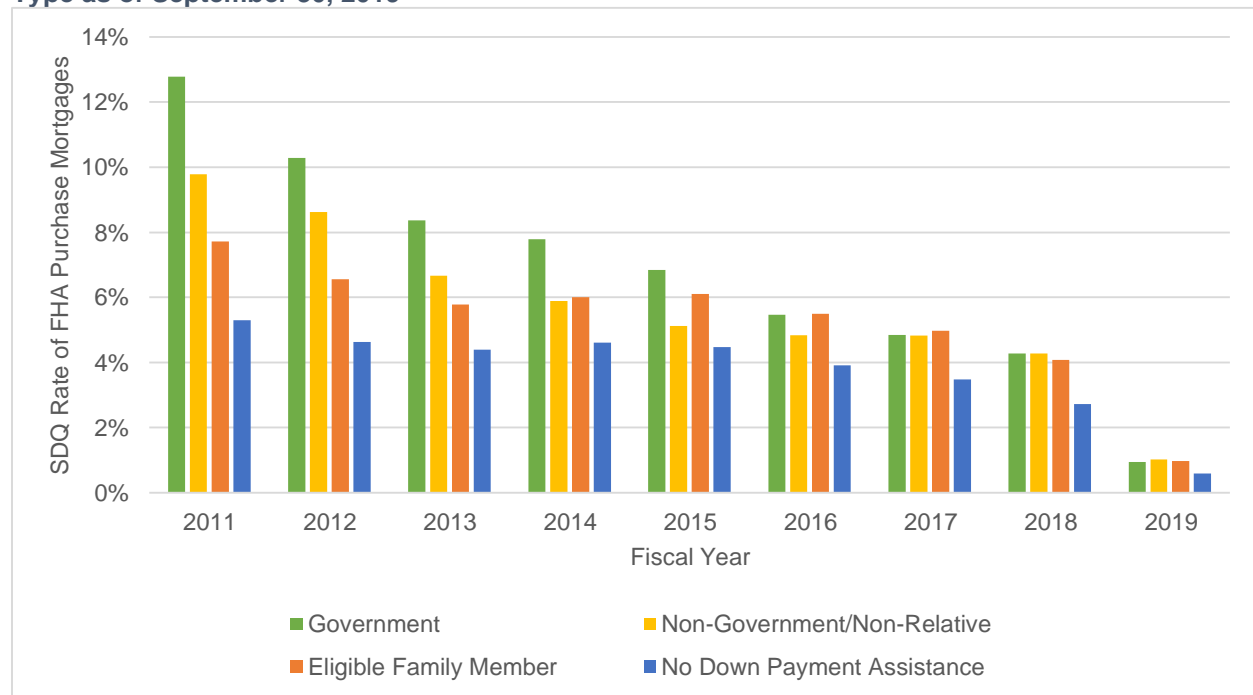
Exhibit I-18: Early Payment Default Rate of FHA Purchase Mortgages by Downpayment Assistance



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-18 in Appendix B.

Exhibit I-18 illustrates that EPD rates are higher across every quarter for DPA mortgages as compared to mortgages without DPA.

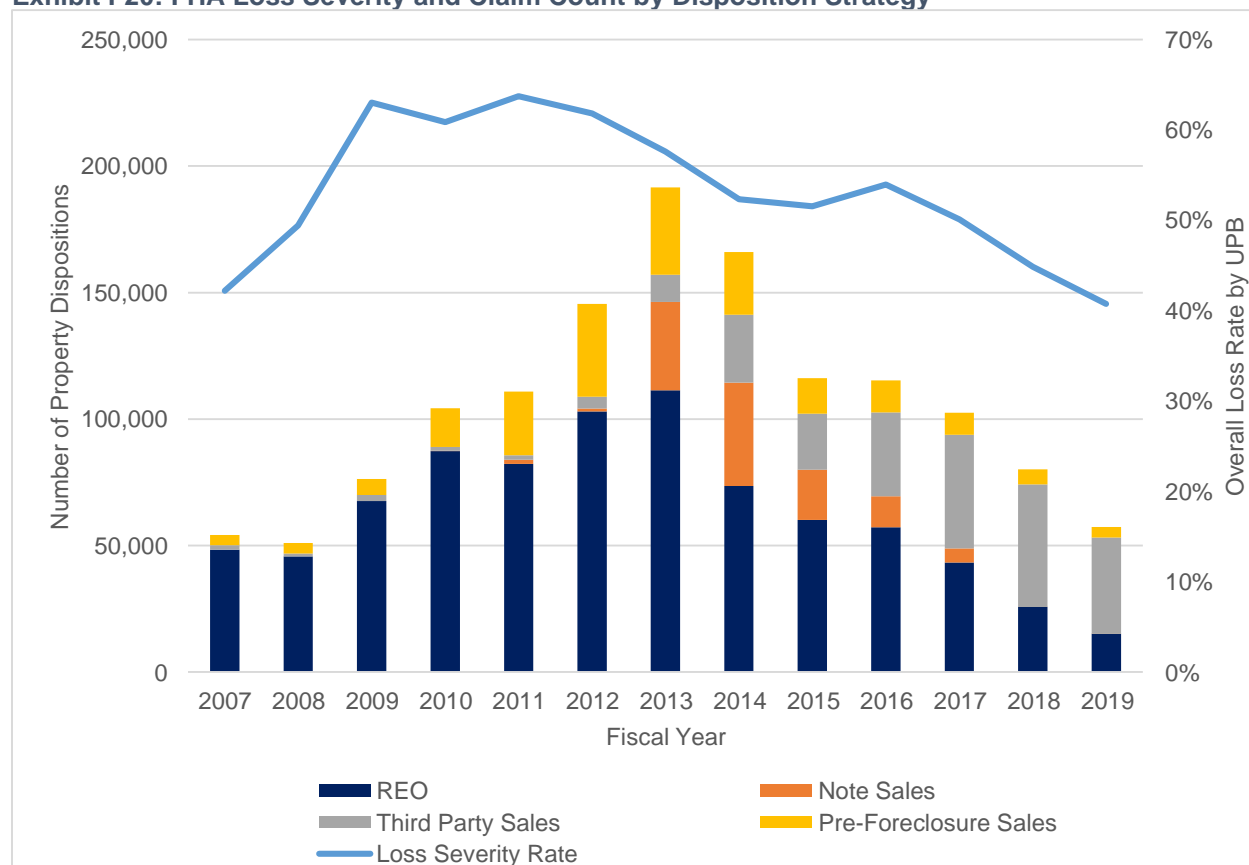
Exhibit I-19: Serious Delinquency Rate of FHA Purchase Mortgages by Downpayment Assistance Type as of September 30, 2019



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-19 in Appendix B.

Exhibit I-19 shows the current SDQ rate of FHA-insured purchase transaction mortgages endorsed for FY 2011 through FY 2019 by DPA type. SDQ rates tend to rise as mortgages season. The currently low SDQ rates for the FY 2019 vintage reflect the short seasoning period of these mortgages. More seasoned vintages show higher SDQ rates, and there is a significant difference in SDQ rates between mortgages with DPA and those without. Seasoned mortgages with DPA from governmental entities are associated with the highest SDQ rates.

Loss and Claims Activity

Exhibit I-20: FHA Loss Severity and Claim Count by Disposition Strategy

NOTE: De minimis note sales may be reflected in the table above in which final resolution may result in an alternative disposition type. Includes funds outside of MMI Fund and includes outbids. Due to time lag in reporting of dispositions, data as of August 31, 2019 and are therefore missing one month of comparable data to prior fiscal years.

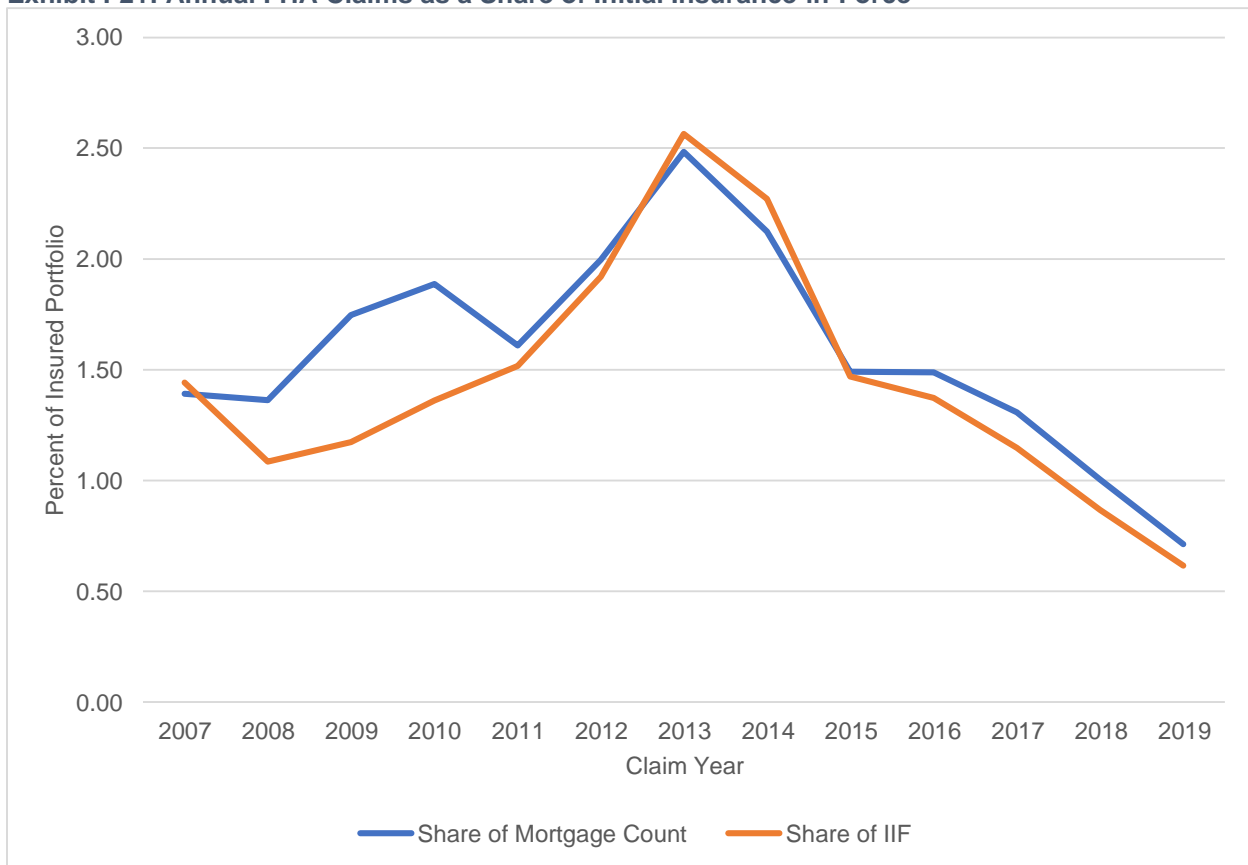
SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-20 in Appendix B.

Exhibit I-20 shows the average loss rate declined to 40.73 percent in FY 2019, down from 44.83 percent in FY 2018. The loss rate is well below the highs that resulted in the wake of the financial crisis, where home values were deteriorating, and loss rates exceeded 60 percent.

FHA utilizes four asset disposition strategies: sale of HUD real-estate owned (REO) properties; Notes Sales, Third Party Sales (TPS); and Pre-foreclosure Sales (PFS). A notable trend is the continuing reduction, beginning in FY 2013, of REO dispositions over other asset disposition strategies that are less costly to HUD. In FY 2019, REO sales represented 26.13 percent of asset dispositions, down from 32.09 percent in FY 2018. TPS dispositions were 66.43 percent of all dispositions in FY 2019.

Exhibit I-21: Annual FHA Claims as a Share of Initial Insurance-in-Force

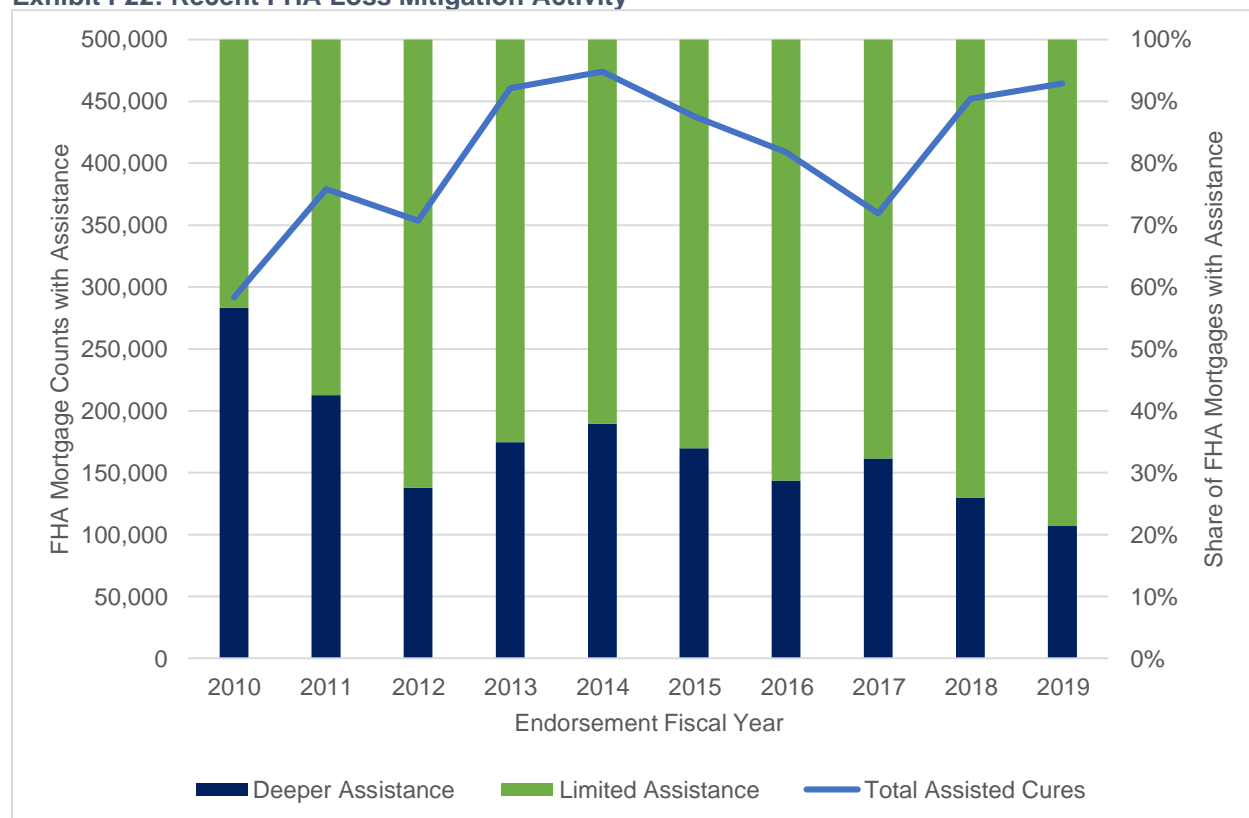


NOTE: Includes mortgages outside of MMI Fund and includes outbids. Due to time lag in reporting of dispositions, data as of August 31, 2019 and are therefore missing one month of comparable data to prior fiscal years.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-21 in Appendix B.

Exhibit I-21 reflects claims paid as a percentage of IIF for both the number of claims and the dollar balance of claims. The continued improvement in claims paid as a percentage of IIF since FY 2013 reflects a favorable housing and economic environment.

Exhibit I-22: Recent FHA Loss Mitigation Activity

NOTE: Deeper Loss Mitigation Assistance includes FHA-HAMP, Partial Claims, and Loan Modifications. Limited Loss Mitigation Assistance includes Promise to Pay and Repayment Plans. Starting in May 2013, Promise to Pay is no longer classified as a Repayment Plan and is considered its own category.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-22 in Appendix B.

FHA's loss mitigation activities include home retention options that provide a range of tools to enable eligible owner-occupants facing hardship to stay in their homes. FHA differentiates between deeper assistance and limited assistance.

Deeper assistance cures may include an FHA-Home Affordable Modification Program (FHA-HAMP), disaster loan modifications, and disaster standalone partial claims. FHA-HAMP may include a partial claim or loan modification, or both, targeting a 20 percent reduction in a monthly mortgage payment. Limited assistance includes formal and informal forbearance and repayment plans.

In FY 2019, FHA-insured mortgages with assisted cures totaled 464,428, and deeper assistance cures represented 21.42 percent of all cures, a decrease of 4.55 percentage points from the FY 2018 level of 25.96 percent, as illustrated in Exhibit I-22.

Home Equity Conversion Mortgage Program

Overview

Through the Home Equity Conversion Mortgage (HECM) program, FHA provides insurance on the vast majority of all reverse mortgages available in the nation. When initially authorized by the Housing and Community Development Act of 1987, the HECM program was made available on a limited basis and all HECMs were obligations of the General Insurance (GI) Fund. Over time, the program expanded significantly, with \$30 billion of HECM Maximum Claim Amount (MCA) insured by FHA in FY 2009. Beginning in FY 2009, all new HECM endorsements are obligations of the MMI Fund.

The HECM program enables senior homeowners, aged 62 or older, who meet various borrower, property ownership, and financial requirements to withdraw a portion of the value of their home without any corresponding periodic requirement to repay amounts borrowed. Instead, the principal borrowed, along with interest, Mortgage Insurance Premiums, and servicing fees are added to the mortgage balance over time. As a result, HECM balances may eventually equal or exceed the value of the home. HECM borrowers remain responsible for the payment of taxes, insurance, and property charges.

Subject to the nationwide limits on claim amounts, the amount of funds that any borrower can access through a HECM depends on a variety of factors, including the value of the property, the age of the youngest borrower or eligible non-borrowing spouse,⁸ and the interest rate charged to the borrower.⁹

Due to the uncertainty of home prices, interest rates, appraisal bias, and other factors that impact the property value and mortgage balance, the HECM portfolio's financial performance has been historically volatile, and the transition of HECM obligations to the MMI Fund continues to negatively impact the MMI Fund's overall performance. The negative cash flow is due to a variety of economic and other factors, and is covered, or subsidized, by the positive cash flow into the MMI Fund from favorable Forward mortgage portfolio performance. Chapter II of this Annual Report discusses the impacts of the HECM portfolio on the MMI Fund in more detail.

⁸ The inclusion of a non-borrowing spouse was made for all HECMs after August 4, 2014; HECMs originated prior to that date allow for the deferral of due and payable status at the discretion of the lender when certain eligibility criteria are met.

⁹ The age of the youngest non-borrowing spouse was first introduced as a factor on August 4, 2014.

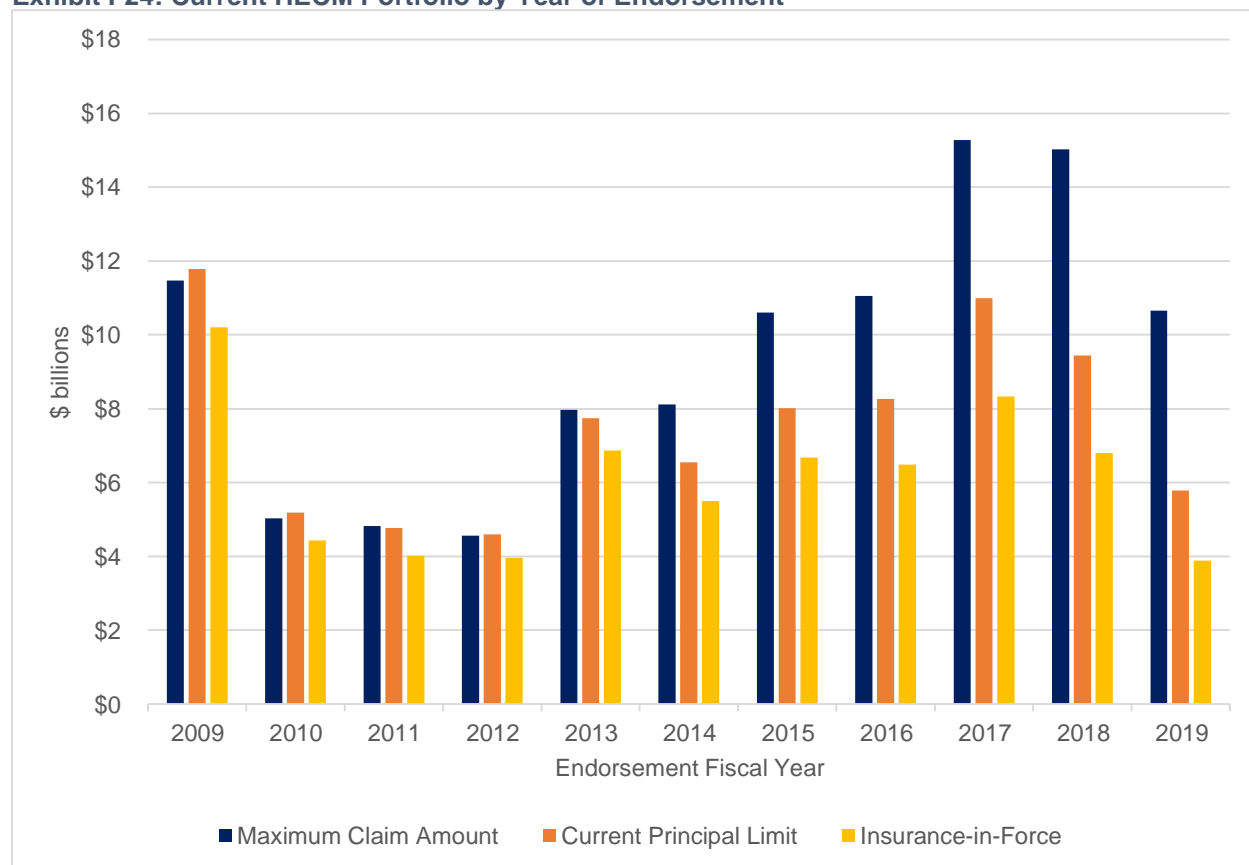
Exhibit I-23: FHA HECM Endorsement Activity



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-23 in Appendix B.

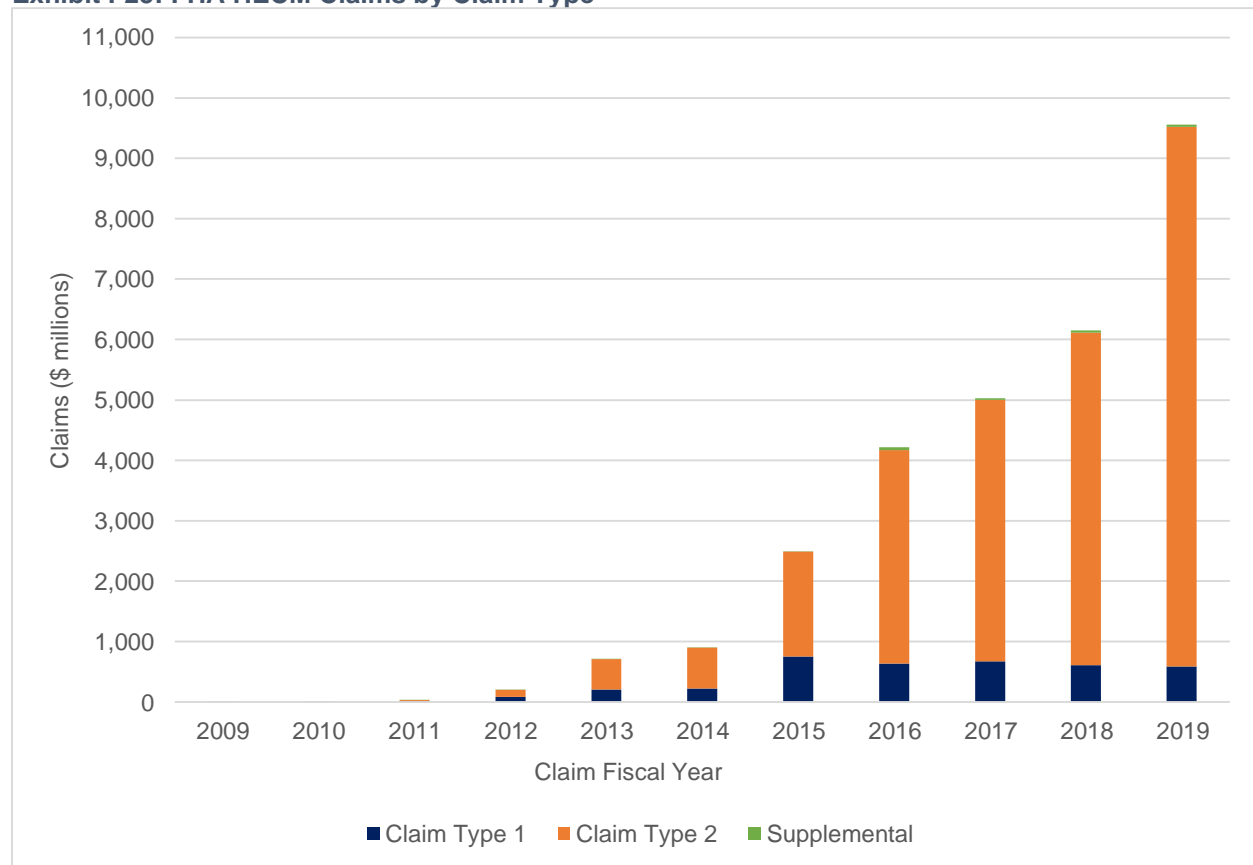
As shown in Exhibit I-23, FHA endorsed 31,260 HECMs in FY 2019, representing an MCA of \$10.86 billion. HECM endorsement volume is 72.68 percent lower than the peak of FY 2009 and has declined by 35.32 percent over the last fiscal year.

Exhibit I-24: Current HECM Portfolio by Year of Endorsement



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-24 in Appendix B.

Exhibit I-24 provides a breakdown of the current HECM portfolio by vintage year. For each vintage year, the current outstanding MCA, current total Principal Limit (PL), and current IIF are shown. As of September 30, 2019, the HECM portfolio in the MMI Fund represented a total MCA of \$104.56 billion, a current PL of \$83.11 billion, and a current IIF of \$67.14 billion.

Exhibit I-25: FHA HECM Claims by Claim Type

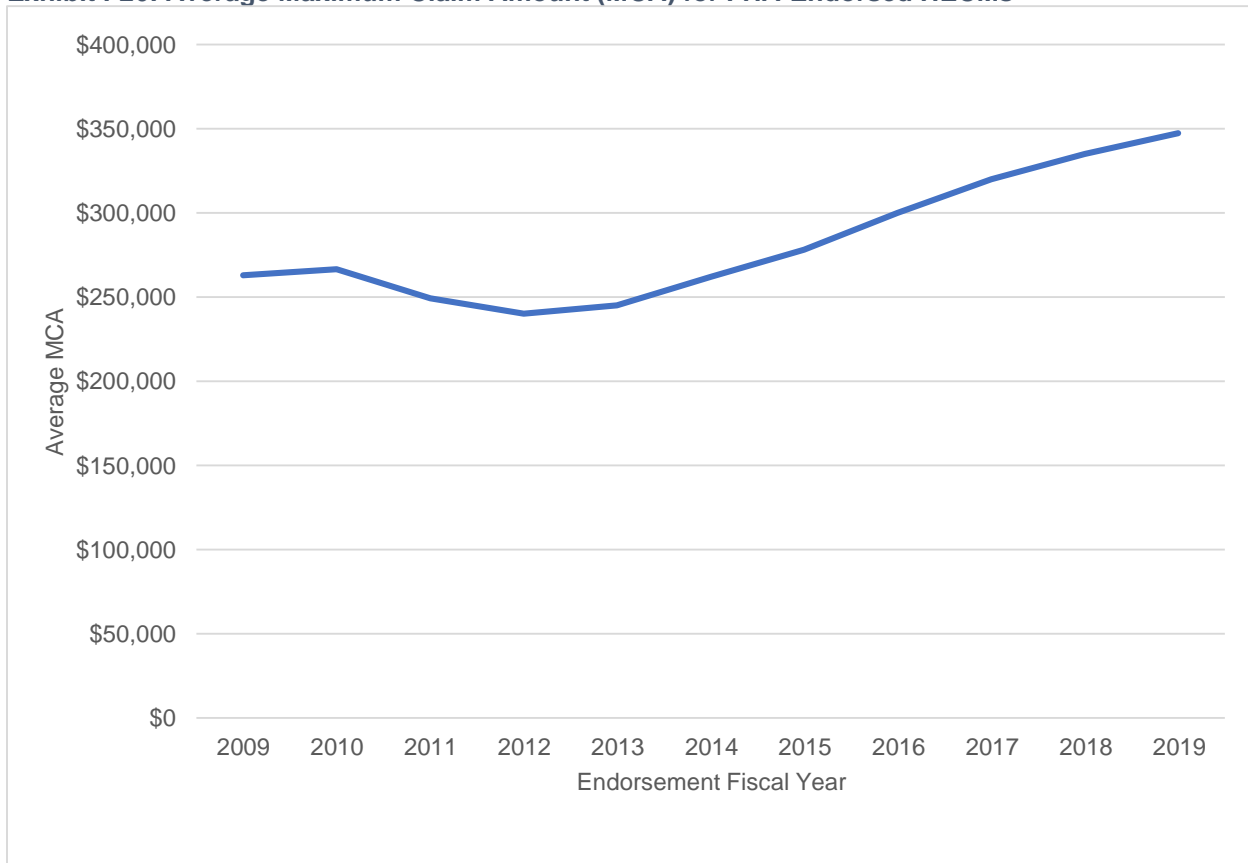
NOTE: The Claim Type 1 category represents the dollar volume of claims generated when the borrower no longer occupies the home, and the property is sold at a loss, with the mortgage never being assigned to the Secretary of HUD. The Claim Type 2 category represents the dollar volume of claims resulting from the assignment of the mortgage to the Secretary of HUD when the mortgage reaches 98 percent of the MCA. Supplemental claims are those claims submitted by lenders for other eligible expenses not included on original claims, such as property preservation expenses.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Refer to data table B-25 in Appendix B.

Exhibit I-25 shows the total amount and distribution of HECM claims by claim type. In FY 2019, claims totaled \$9.56 billion, up from \$6.15 billion in FY 2018. Claim Type 2 – where lenders exercise their right to assign HECMs to the Secretary – accounts for a majority of the increase in total claim amount under the HECM program. Claim Type 2 has increased in recent fiscal years, primarily due to the seasoning of the HECM portfolio with mortgage balances reaching 98 percent of the MCA, and the introduction of the Mortgagee Optional Election (MOE) Assignment, where there is an eligible non-borrowing spouse. The MOE, which may be offered at the election of an FHA-approved servicer, refers to an alternative claim payment option in which HUD pays the insurance claim, and qualified non-borrowing spouses are allowed to remain in the home. The MOE is available for all HECMs with case numbers assigned prior to August 4, 2014.

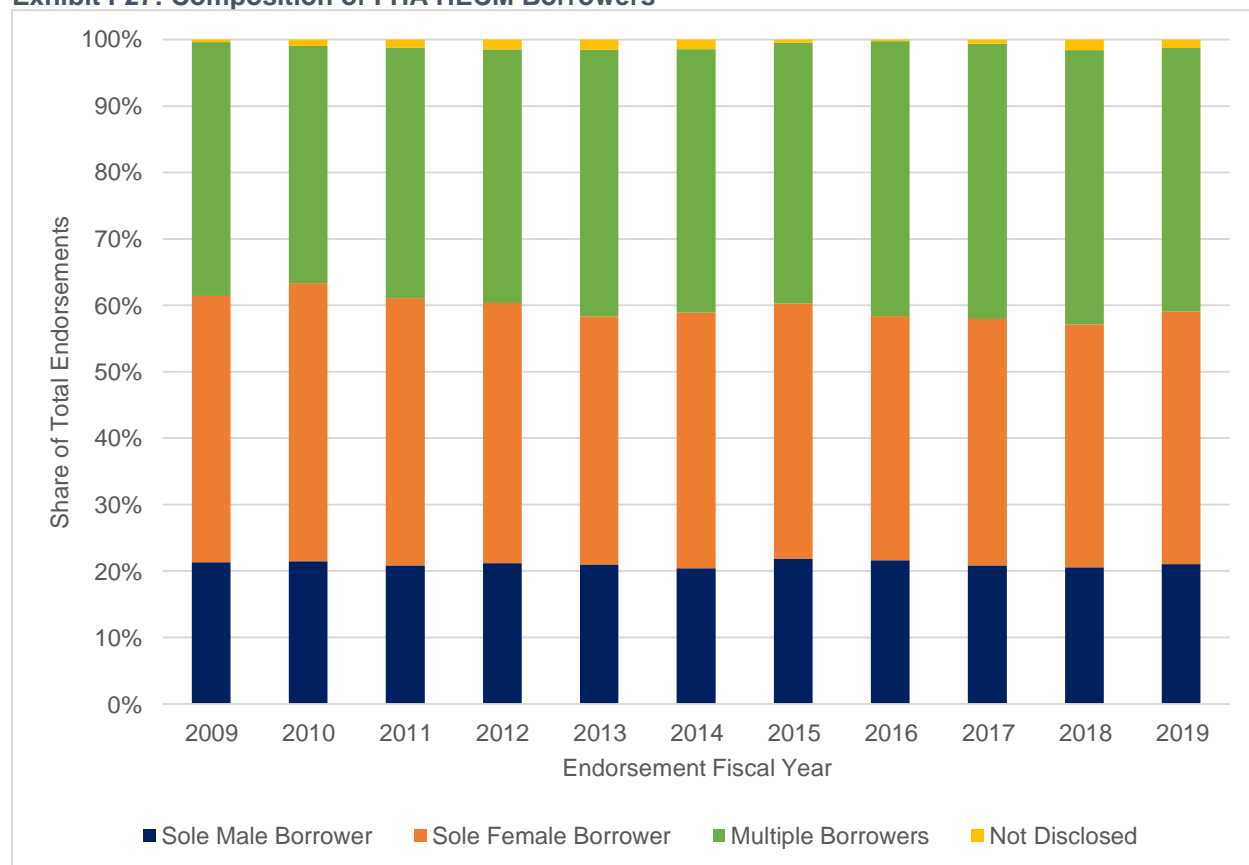
Exhibit I-26: Average Maximum Claim Amount (MCA) for FHA-Endorsed HECMs



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-26 in Appendix B.

As shown in Exhibit I-26, the average MCA per HECM endorsement has continued to rise since FY 2013, increasing to \$347,275 in FY 2019. Rising average MCAs coincide with the increasing health of the housing market, and higher appraised values on homes occupied by HECM borrowers. The current FHA Mortgage Limit for HECMs in FY 2019 was \$726,525. This limit is applied uniformly across the country, unlike the FHA Forward mortgage limits which vary based on geographic locations and are subject to minimum and maximum limits.

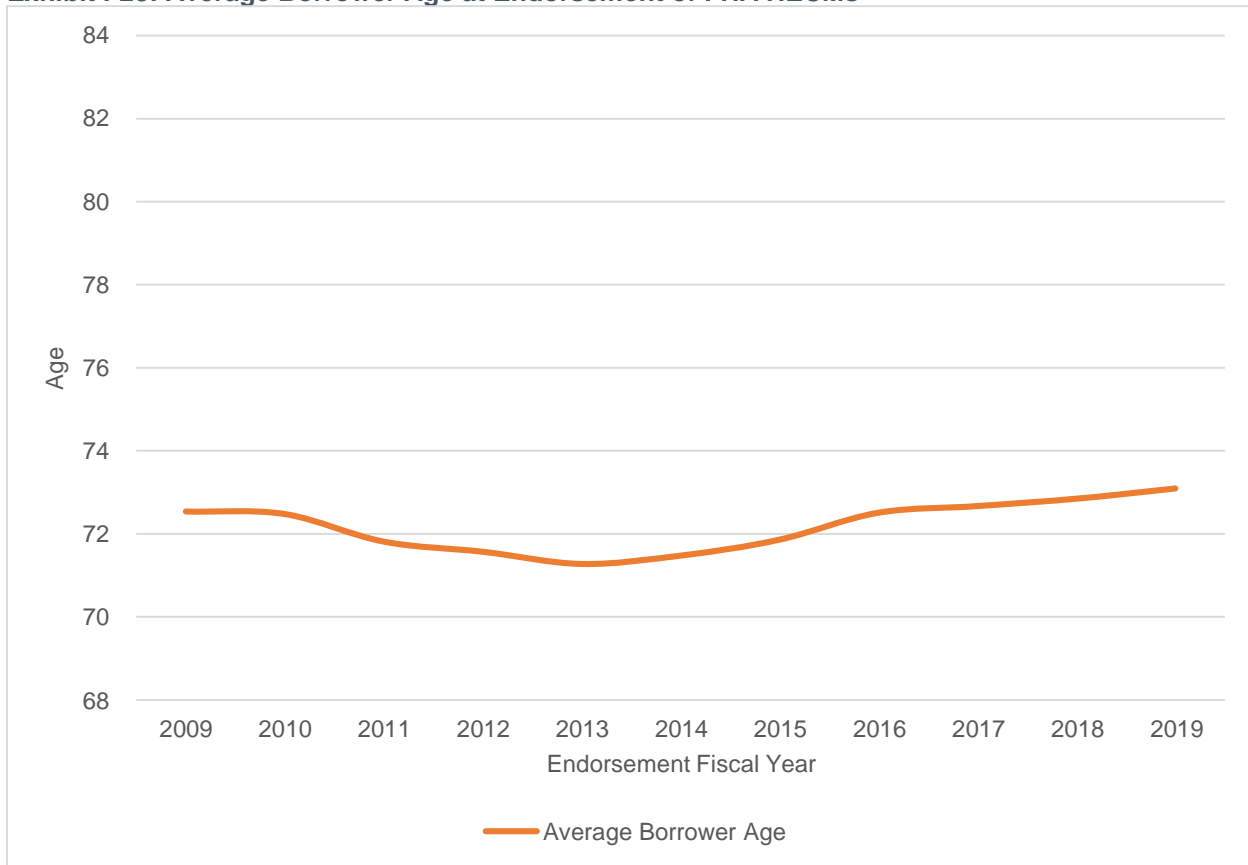
Exhibit I-27: Composition of FHA HECM Borrowers



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-27 in Appendix B.

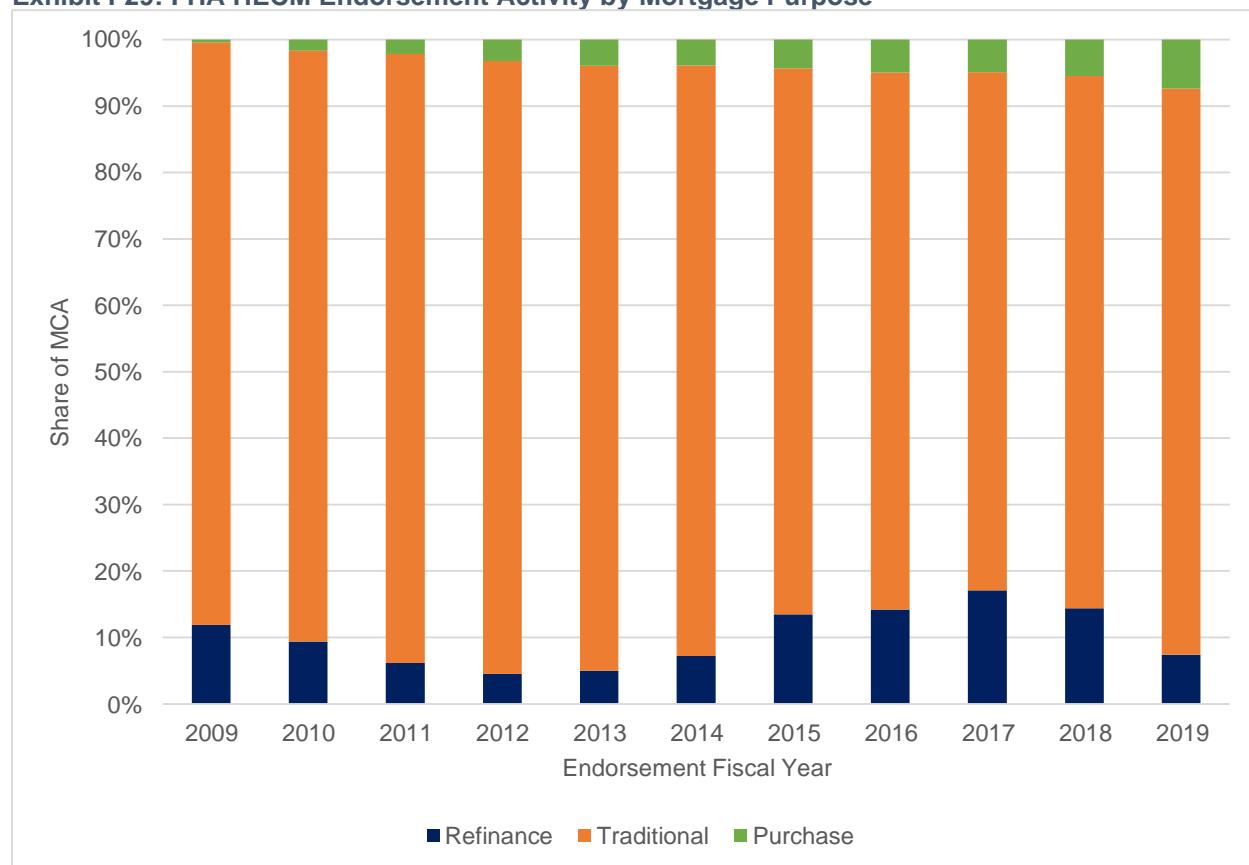
Exhibit I-27 illustrates the HECM endorsement counts by share of borrower type. In FY 2019, 38.04 percent of HECM endorsements served sole female borrowers, 21.00 percent served sole male borrowers, and 39.70 percent served multiple borrowers. The composition of HECM borrowers has remained relatively consistent since FY 2009.

Exhibit I-28: Average Borrower Age at Endorsement of FHA HECMs



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-28 in Appendix B.

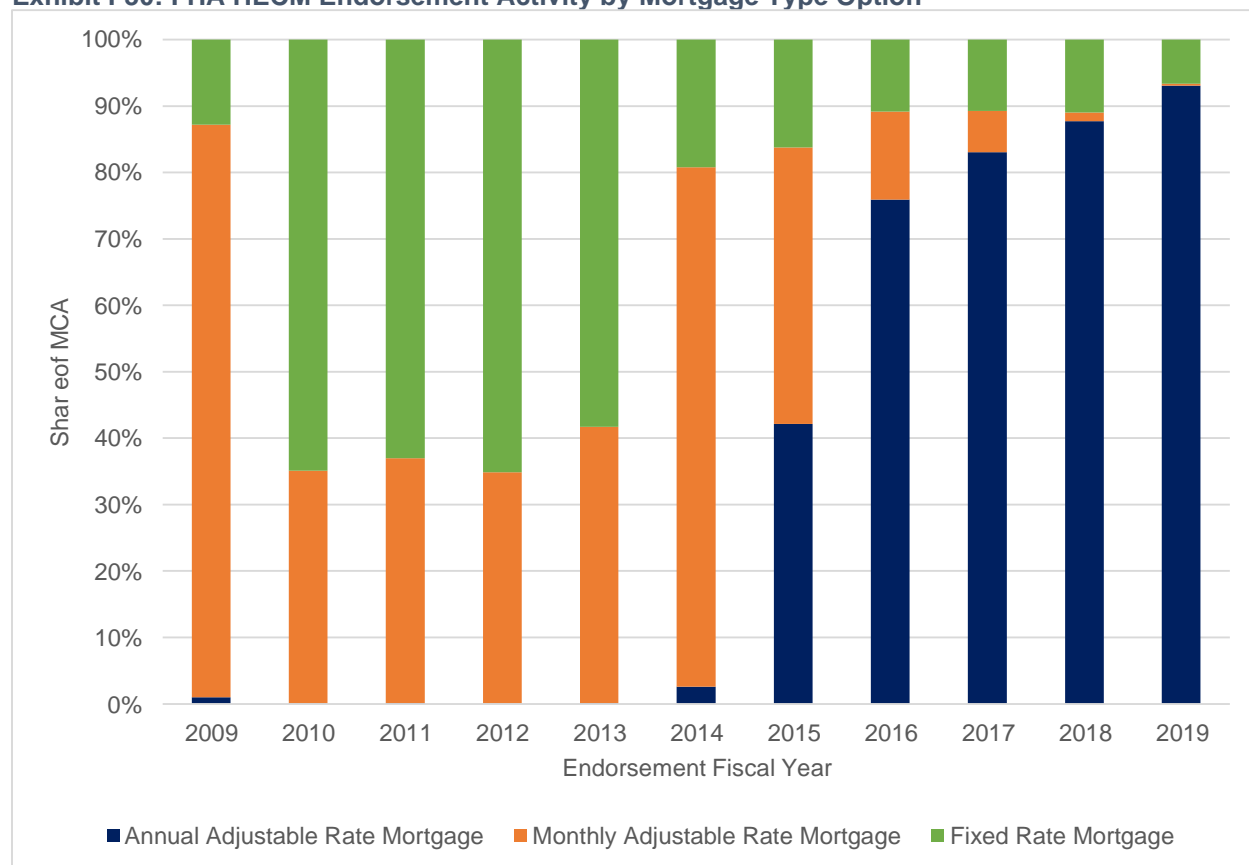
Exhibit I-28 above shows the trend in the average age of HECM borrowers, which has been relatively stable. In FY 2019, the average borrower age increased slightly to 73.09 years from 72.85 years in FY 2018.

Exhibit I-29: FHA HECM Endorsement Activity by Mortgage Purpose

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-29 in Appendix B.

As shown in Exhibit I-29, the MCA share for HECM purchase mortgages grew significantly from 0.47 percent in FY 2009 to 7.40 percent in FY 2019. Moreover, the share of HECM MCA for refinance transactions more than tripled from FY 2012, rising from 4.57 percent to 17.11 percent in FY 2017, as homeowners took advantage of favorable house prices and extracted more equity. However, this has decreased in FY 2018 and 2019, with HECM refinance transactions at 7.44 percent of all transactions in FY 2019. The decrease is a result of revised Principal Limit Factors (PLFs) reducing the attractiveness of refinancing.¹⁰

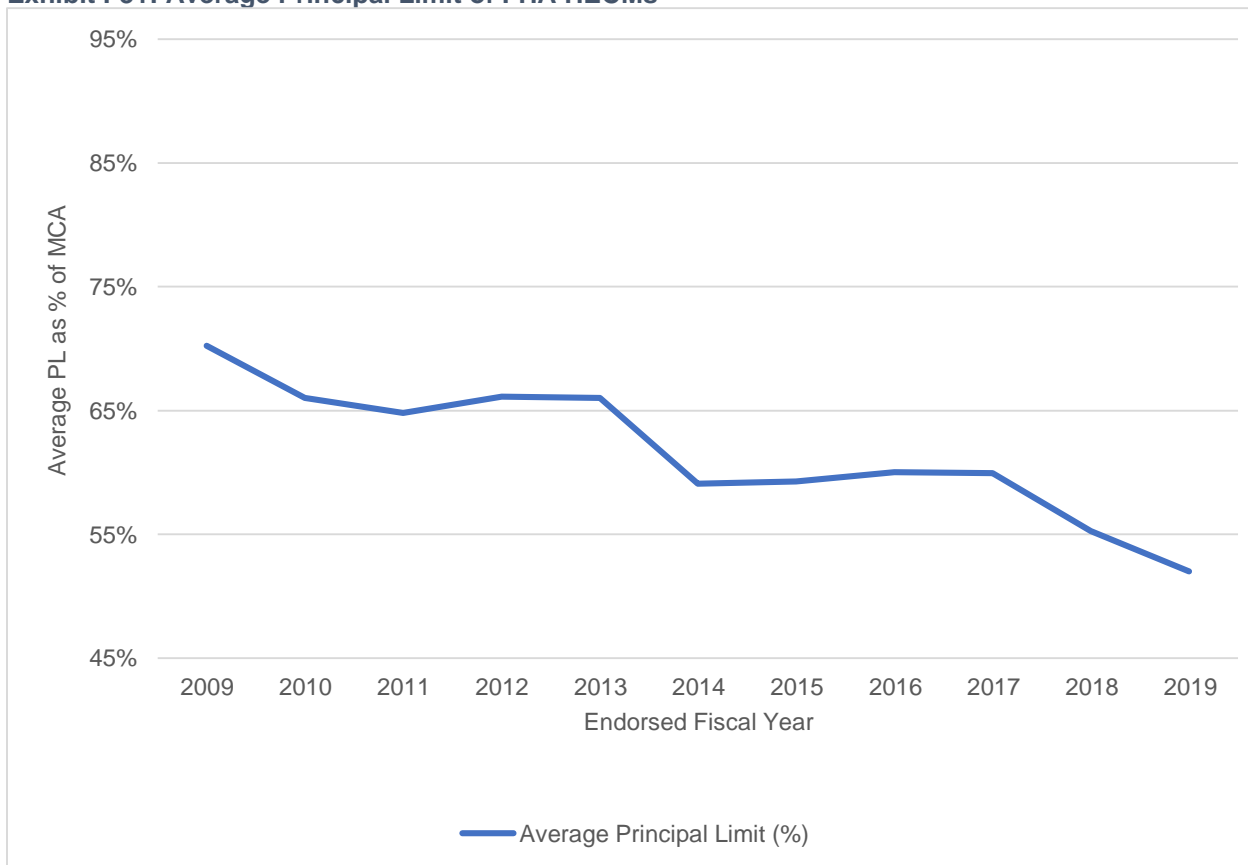
¹⁰ An FHA Policy revising PLFs with HECM was implemented in 2018, affecting HECM cases on or after October 2, 2018.

Exhibit I-30: FHA HECM Endorsement Activity by Mortgage Type Option

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-30 in Appendix B.

Exhibit I-30 illustrates the shift from fixed-rate HECMs to adjustable-rate HECMs since FY 2013. In FY 2019, 93.36 percent of FHA's HECM endorsements were for adjustable-rate mortgages. This change in composition is, in part, a result of policies implemented in FY 2014 related to the insurability of fixed-rate HECMs, including eliminating the option of future draws and a reduction in the amount of principal made available to the borrower. If interest rates increase in the future, adjustable rate HECM balances will compound more quickly, resulting in faster depletion of borrower equity in the home and increased potential losses to FHA. Currently, lenders can choose to use one of two indexes for HECM adjustable-rate mortgages: Constant Maturity Treasury Index (CMT) or London Interbank Offered Rate (LIBOR).

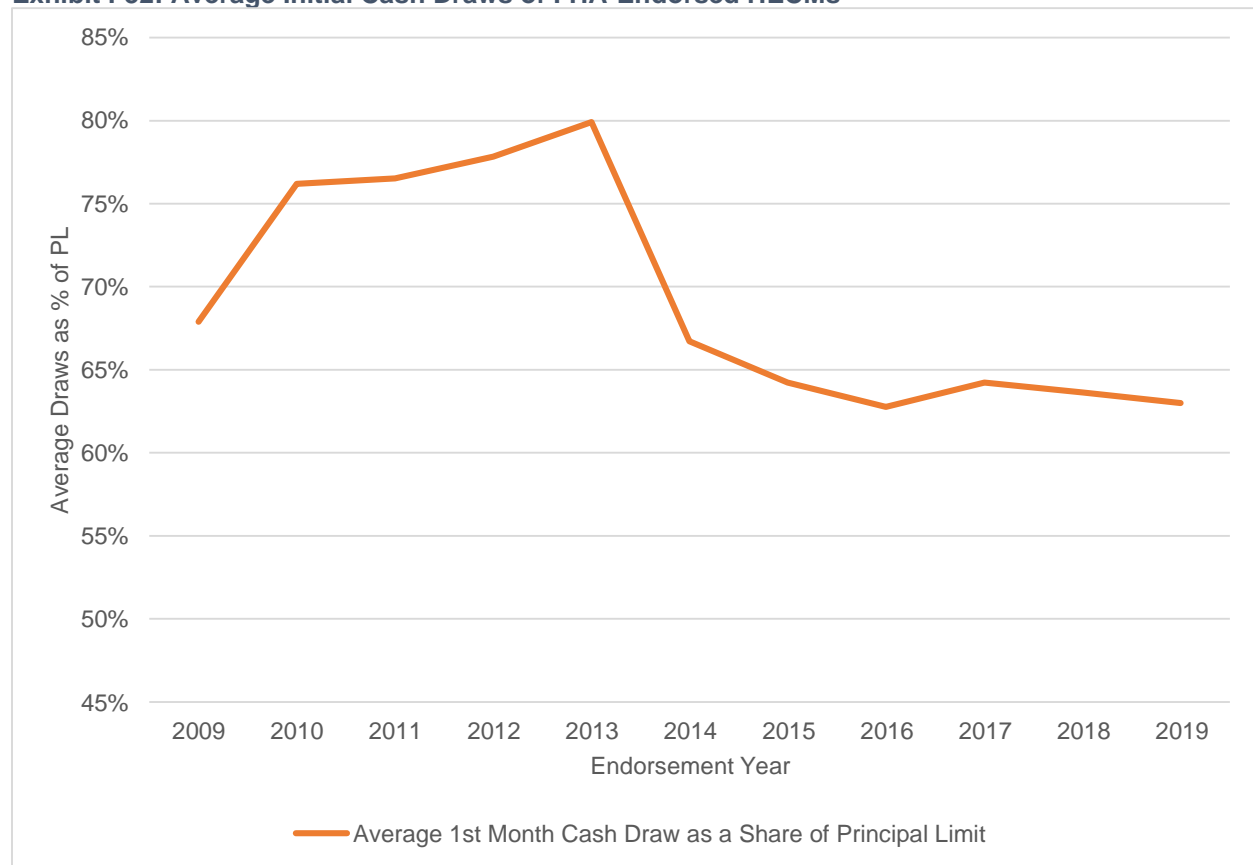
Exhibit I-31: Average Principal Limit of FHA HECMs



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-31 in Appendix B.

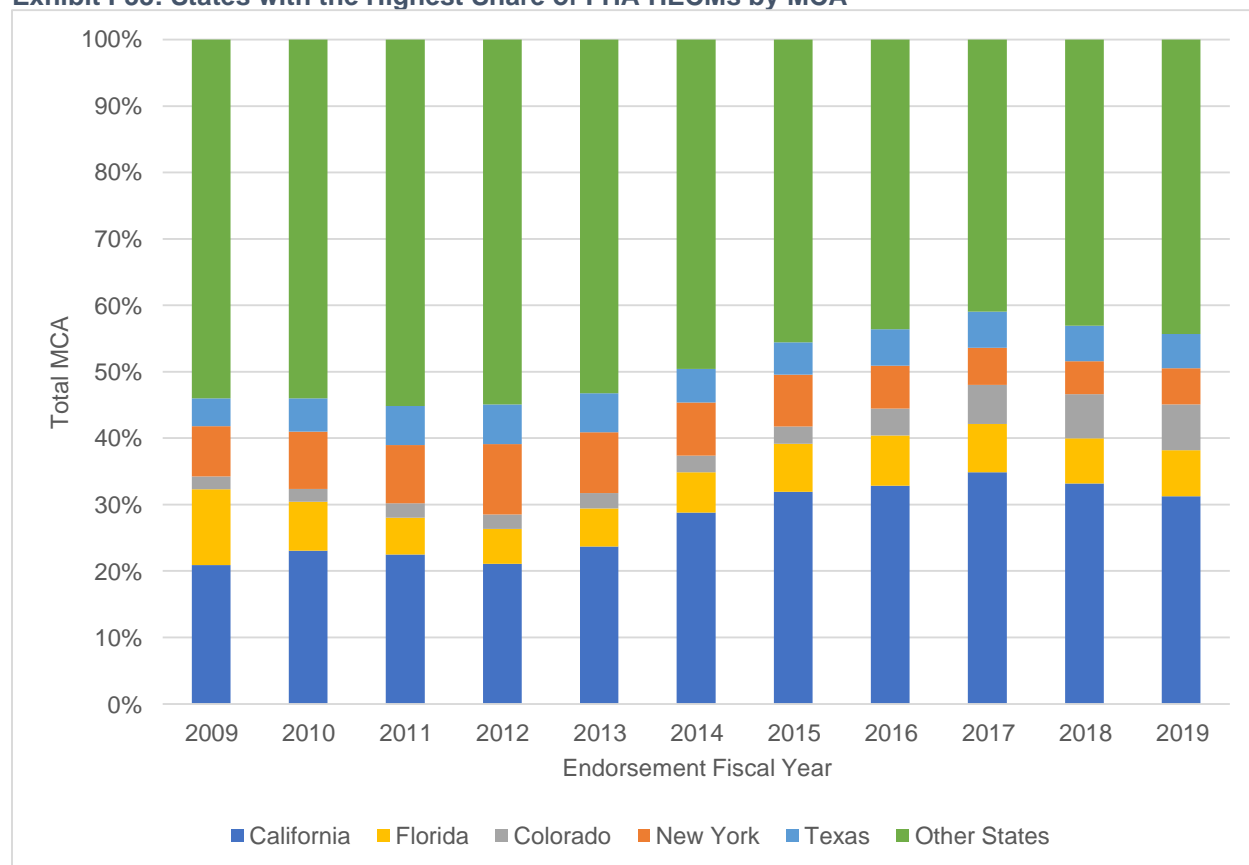
The average PL on a HECM in FY 2019 was 51.48 percent of the MCA, down from 55.26 percent in FY 2018. Exhibit I-31 shows a consistent average PL beginning with endorsements in FY 2014 through FY 2017 but decreasing in FY 2018 and FY 2019. This decrease is due to new FHA policy updating PLFs effective with HECM case numbers issued on or after October 2, 2017.

Exhibit I-32: Average Initial Cash Draws of FHA-Endorsed HECMs



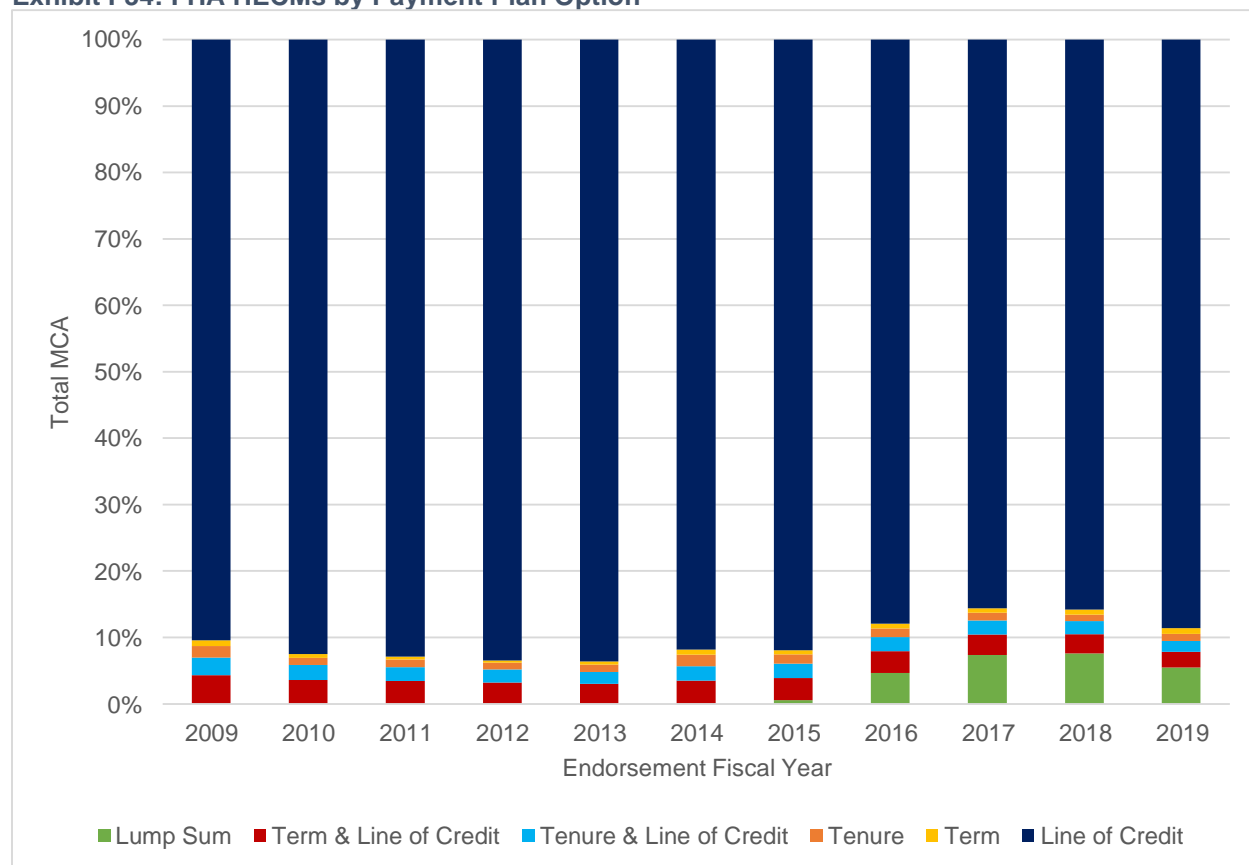
SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-31 in Appendix B.

As illustrated in Exhibit I-32, in FY 2019, HECM borrowers withdrew on average 62.78 percent of their available PL on their initial draw in FY 2019, versus FY 2013, where the HECM borrower's average initial draw was 83.03 percent of the PL. Initial draw amounts on both fixed- and adjustable-rate HECMs have decreased significantly since FY 2013, as reflected in Exhibit I-32 above, and have remained relatively stable over the last four fiscal years.

Exhibit I-33: States with the Highest Share of FHA HECMs by MCA

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-32 in Appendix B.

The top three states for HECM endorsements in FY 2019, based on total MCA, were California (31.27 percent), Florida (6.92 percent), and Colorado (6.90 percent). HECMs are more geographically concentrated than Forward mortgages. The top five states represented 55.69 percent of new HECM endorsements in FY 2019. The geographical risk profile for the program has become more concentrated in recent years. Future HECM performance will most likely be more reliant on economic factors such as HPA in these concentrated states, particularly in California where the share of HECM MCA is almost five times greater than Florida, the state with the second highest share.

Exhibit I-34: FHA HECMs by Payment Plan Option

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table B-33 in Appendix B.

Exhibit I-34 summarizes the share of aggregate HECM MCA by payment plan option type by fiscal year. HECM borrowers can choose from the following payment options to receive mortgage proceeds:

- (a) **Lump Sum:** Under the Lump Sum payment option, the borrower receives a single lump sum disbursement at closing. This payment option is only available for fixed-rate HECMs.
- (b) **Term:** Under the term payment option, equal monthly payments are made to the borrower for a fixed term of months chosen by the borrower.
- (c) **Tenure:** Under the tenure payment option, equal monthly payments are made to the borrower.
- (d) **Line of Credit (LOC):** Under the LOC payment option, payments are made to the borrower at times and in amounts determined by the borrower until the LOC is exhausted.
- (e) **Term or Tenure with LOC:** Under the term or tenure payment options with a LOC, equal monthly payments are made to the borrower for a fixed period. These payment plans segregate a portion of the available principal for a LOC and then calculate monthly draws based on the borrower's selection of Term or Tenure.

The HECM LOC draw option remains the predominant payment plan type chosen by HECM borrowers due to its flexibility. This has been consistent over the previous fiscal years, although

there has been an increase in the number of Lump Sum payment plan options over the past three fiscal years. Borrowers with fixed-rate HECMs may not request a change in payment option. Borrowers with adjustable-rate HECMs originated after FY 2014 may request a change in payment option after the first 12-month disbursement period if the outstanding mortgage balance is less than the PL.

Chapter II: Condition of the Mutual Mortgage Insurance Fund

Overview

The Mutual Mortgage Insurance Fund (MMI Fund) Capital Ratio as of September 30, 2019, is 4.84 percent of insurance-in-force (IIF), exceeding the Congressionally mandated 2.00 percent minimum for the fifth consecutive year. This represents an increase of 2.08 percentage points from the FY 2018 Capital Ratio of 2.76 percent. MMI Capital¹¹ increased by \$27.5 billion, benefitting from seven years of strong House Price Appreciation (HPA) and by more favorable economic projections than assumed in the FY 2018 report.

Exhibit II-1: Mutual Mortgage Insurance Fund (\$ million)

Description	2017	2018	2019
Total Capital Resources	\$40,857	\$49,237	\$57,980
Cash Flow NPV	(\$14,112)	(\$14,375)	4,402
MMI Capital	\$26,745	\$34,862	\$62,382
Insurance-In-Force	\$1,226,843	\$1,264,672	\$1,288,436
Total Capital Resources	3.33%	3.89%	4.50%
Cash Flow NPV	-1.15%	-1.14%	0.34%
MMI Fund Capital Ratio	2.18%	2.76%	4.84%

SOURCE: U.S. Department of HUD/FHA, October 2019.

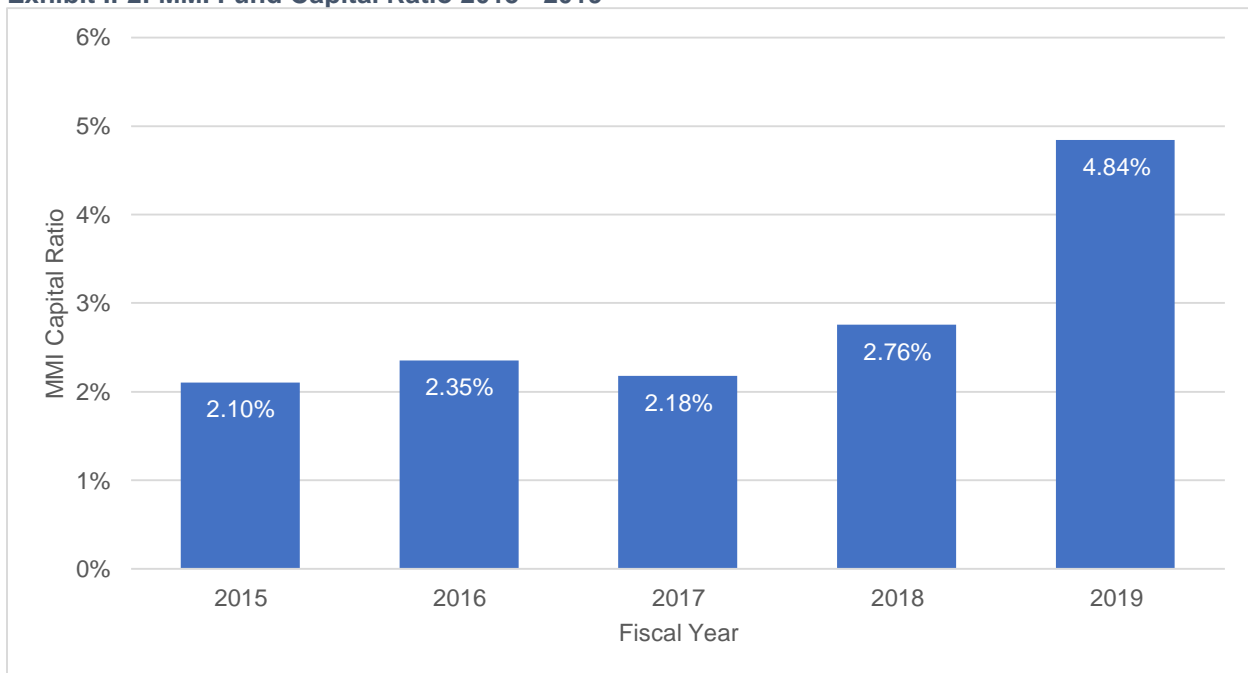
Managing the capital position of the Fund extends beyond achieving or exceeding a minimum Capital Ratio at a point in time. The Capital Adequacy section discusses sound risk management approaches consistent with industry best practices that would achieve this goal.

MMI Fund Capital Ratio

The FY 2019 MMI Fund Capital Ratio is 4.84 percent of IIF, exceeding the Congressionally mandated 2.00 percent statutory capital requirement for the fifth consecutive year. (See Exhibit II-2, below).

¹¹ The term “MMI Capital” means Economic Net Worth of the Mutual Mortgage Insurance Fund, as determined by the Secretary under the annual audit required under section 1735f-16 of this title. The new terminology is more consistent with industry standards, as the MMI Fund Capital Ratio can now be expressed as MMI Capital/IIF.

Exhibit II-2: MMI Fund Capital Ratio 2015 - 2019



SOURCE: U.S. Department HUD/FHA, October 2019.
Refer to data table C-1 in Appendix C.

Consistent with the Federal Credit Reform Act of 1990 (FCRA), the Net Present Value of future MMI Fund cash flows (NPV Cash Flows) was estimated using the underlying economic assumptions in the President's FY 2019 Mid-Session Review. This year's report introduces the concept of **Claims Paying Capacity** and disaggregates NPV Cash Flows into its two components:

- Net Present Value of Projected Mortgage Insurance Premium (MIP) Revenue (**NPV Projected Revenue**)
- Net Present Value of Projected Claims Losses (**NPV Projected Losses**)

The formula for calculating MMI Capital and the MMI Fund Capital Ratio using these two disaggregated factors is shown below:

$$\text{MMI Capital} = (\text{Total Capital Resources} + \text{NPV Projected Revenue} - \text{NPV Projected Losses})$$

$$\text{MMI Fund Capital Ratio} = \text{MMI Capital} / \text{Insurance in Force (IIF)}$$

Exhibit II-3, below, presents an itemization of the components that make up the MMI Fund Capital Ratio calculation.

Exhibit II-3: MMI Fund Capital Ratio Components

Description	FY 2017	FY 2018	FY 2019
Total Capital Resources ¹²	\$40,857	\$49,237	\$57,980
Plus: NPV Projected Revenue	\$59,116	\$51,248	\$51,436
Equals: Claims Paying Capacity	\$99,973	\$100,485	\$109,416
Less: NPV Projected Losses	(\$73,227)	(\$65,623)	(\$47,034)
Equals: MMI Capital	\$26,745	\$34,862	\$62,382
Insurance-In-Force	\$1,226,843	\$1,264,672	\$1,288,436
Total Capital Resources	3.33%	3.89%	4.50%
Plus: NPV Projected Revenue	4.82%	4.05%	3.99%
Equals: Claims Paying Capacity	8.15%	7.95%	8.49%
Less: NPV Projected Losses	-5.97%	-5.19%	-3.65%
Equals: MMI Fund Capital Ratio	2.18%	2.76%	4.84%

SOURCE: U.S. Department of HUD/FHA, October 2019.

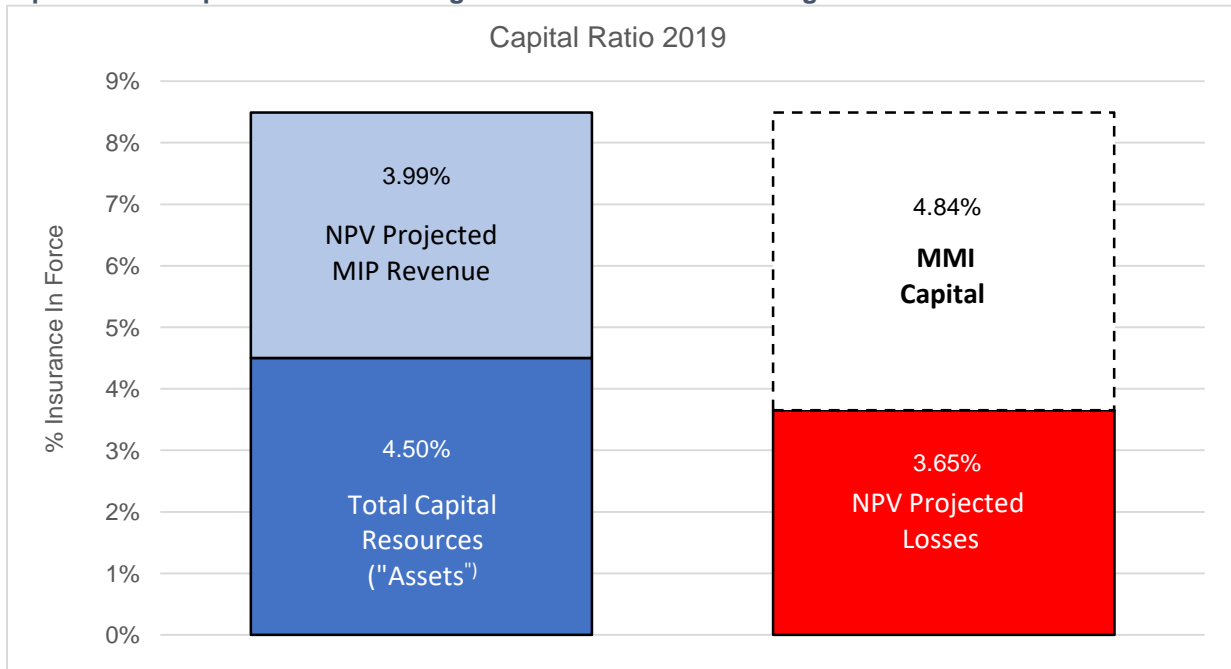
Exhibit II-4, below, illustrates the components that make up the 2019 MMI Fund Capital Ratio. It highlights an important observation regarding the makeup of MMI Capital. MMI Capital is not entirely composed of assets that might be used as a capital buffer¹³ against adverse events during uncertain times. The sum of the two components on the left side of the Exhibit II-4, Total Capital Resources, (essentially cash and other similar assets), plus NPV Projected Revenue, provides a metric that aligns with the concept of a capital buffer. Together, the sum of the two components measure the Fund's capacity to pay for claims losses and will be referred to as **Claims Paying Capacity** throughout this report.

The third component of the MMI Fund Capital Ratio, NPV of Projected Losses, is a model-driven estimate that is highly dependent on forecasted HPA, shown in the Capital Adequacy section to be a lagging indicator of the health of the economy and health of the MMI Fund.

¹² Includes \$1.7 billion mandatory appropriation from FY2013.

¹³ Basel III formalized the concept of "capital buffer", which is capital that financial institutions are required to hold in addition to other minimum capital requirements, designed to reduce adverse impacts due to the procyclical nature of lending, <https://research.stlouisfed.org/publications/economic-synopses/2019/06/21/can-countercyclical-capital-buffers-help-prevent-a-financial-crisis>.

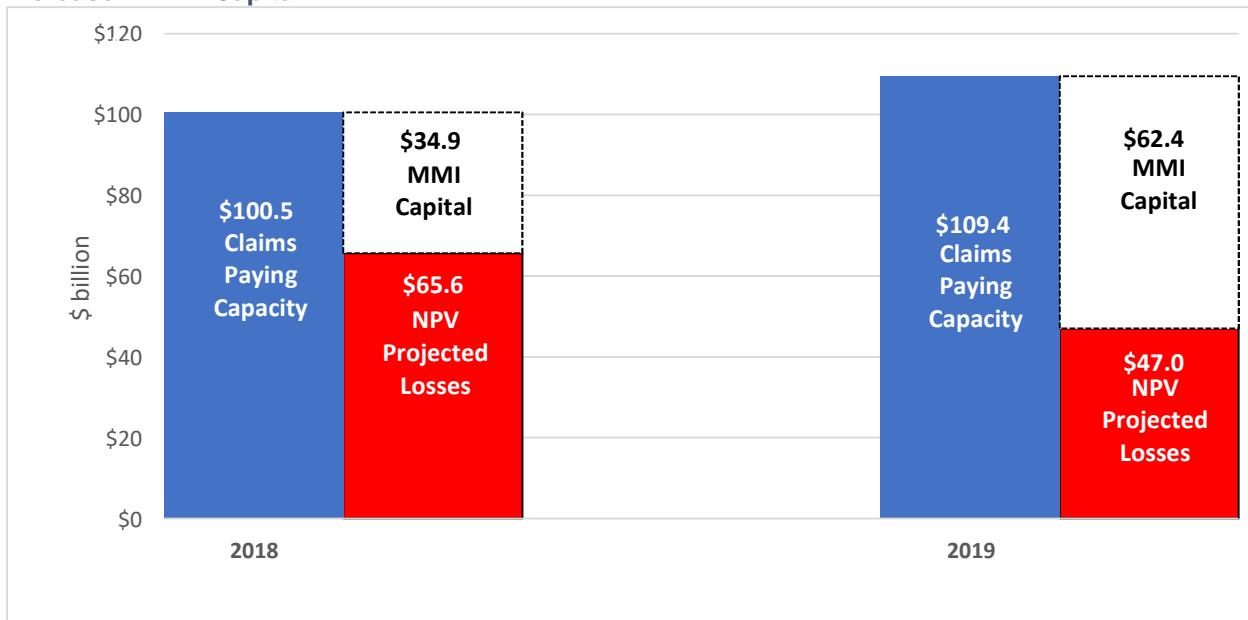
Exhibit II-4: Claims Paying Capacity (Total Capital Resources plus NPV Projected Revenue) represents a capital buffer to use against adverse events during uncertain times



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-6 in Appendix C.

As shown in Exhibit II-3, above, MMI Capital grew by \$27.5 billion over the last year. As illustrated in Exhibit II-5, below, a decrease in NPV Projected Losses generated \$18.6 billion in new MMI Capital. Claims Paying Capacity experienced relatively modest growth of \$8.9 billion.

Exhibit II-5: Decrease in NPV Projected Losses Generated \$18.6 Billion of the Total \$27.5 Billion Increase in MMI Capital

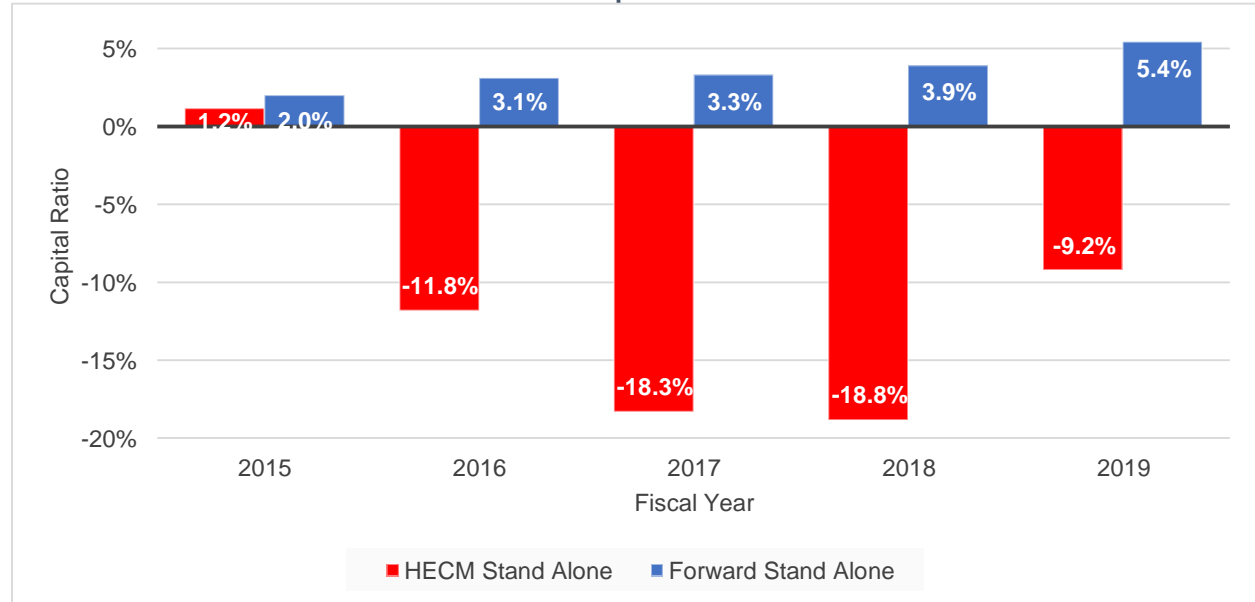


SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-6 in Appendix C.

Stand-Alone Capital Ratios for Forward Mortgages and HECMs

Stand-alone MMI Fund Capital Ratios for Forward and HECM portfolios, Exhibit II-6 below, show that although the HECM portfolio has improved in FY 2019, it continues to be a drag on the health of the MMI Fund.

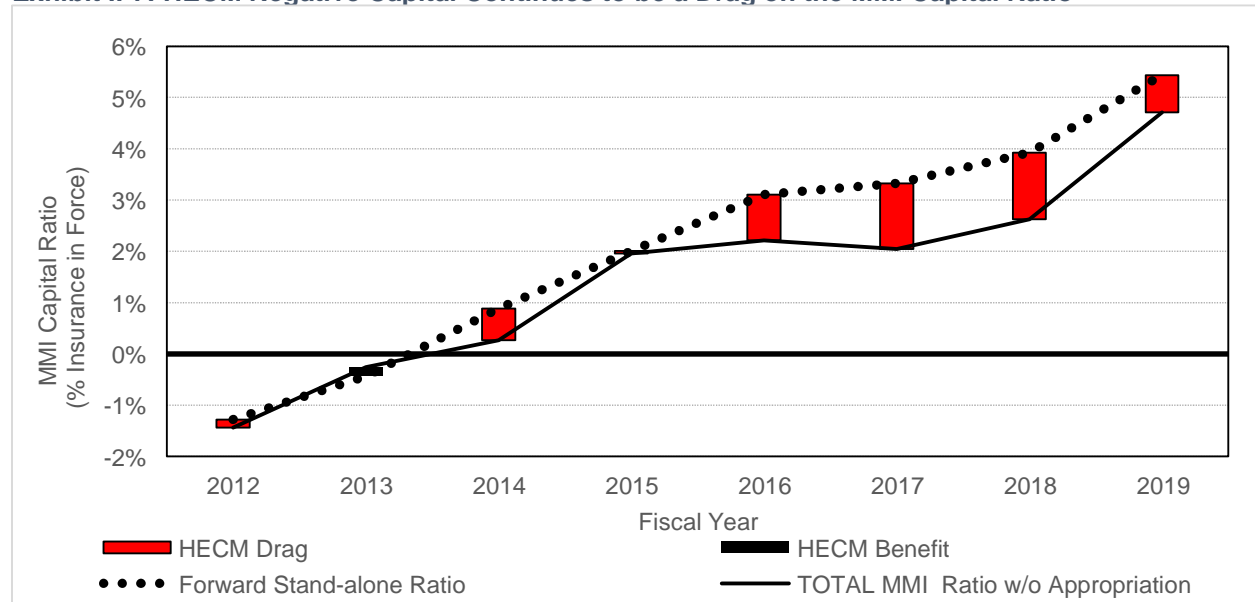
Exhibit II-6: Forward and HECM Stand-Alone Capital Ratios



SOURCE: U.S. Department HUD/FHA, October 2019.
Refer to data table C-2 in Appendix C.

Exhibit II-7, below, highlights the impact standalone HECM Capital Ratios have had on the MMI Fund Capital Ratio since 2012.

Exhibit II-7: HECM Negative Capital Continues to be a Drag on the MMI Capital Ratio



SOURCE: U.S. Department HUD/FHA, October 2019.
Refer to data table C-2 in Appendix C.

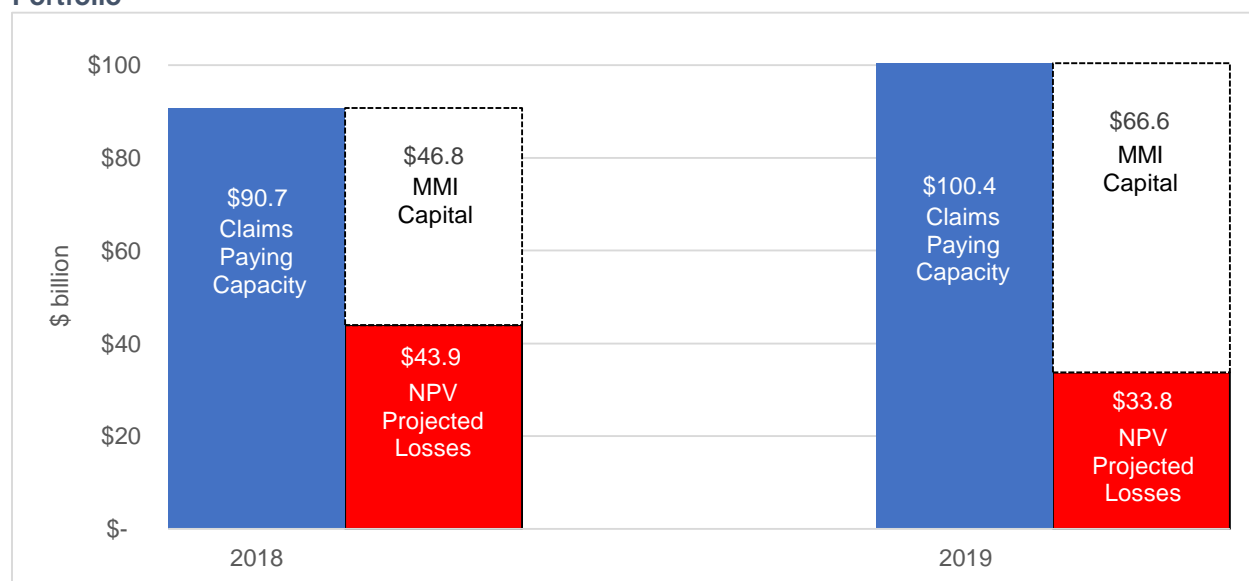
Exhibit II-8, below, shows that the stand-alone MMI Fund Capital Ratio for the Forward portfolio increased from 3.93 percent in FY2018 to 5.44 percent in FY 2019. MMI Capital for the Forward portfolio grew by \$19.8 billion over the last year and is up \$28.2 billion over the last two years.

Exhibit II-8: Forward Mortgage Stand-Alone Capital Ratio Components (\$ millions)

Description	FY 2017	FY 2018	FY 2019
Total Capital Resources	\$37,056	\$45,438	\$54,600
Plus: NPV Revenue	\$54,001	\$45,307	\$45,783
Equals: Claims Paying Capacity	\$91,057	\$90,745	\$100,383
Less: NPV Losses	(\$52,643)	(\$43,935)	(\$33,769)
Equals: MMI Capital	\$38,413	\$46,810	\$66,613
Insurance-In-Force	\$1,153,875	\$1,192,283	\$1,224,225
Total Capital Resources	3.21%	3.81%	4.46%
Plus: NPV Revenue	4.68%	3.80%	3.74%
Equals: Claims Paying Capacity	7.89%	7.61%	8.20%
Less: NPV Losses	-4.56%	-3.68%	-2.76%
Equals: Capital Ratio	3.33%	3.93%	5.44%
Insurance-In-Force	100.00%	100.00%	100.00%

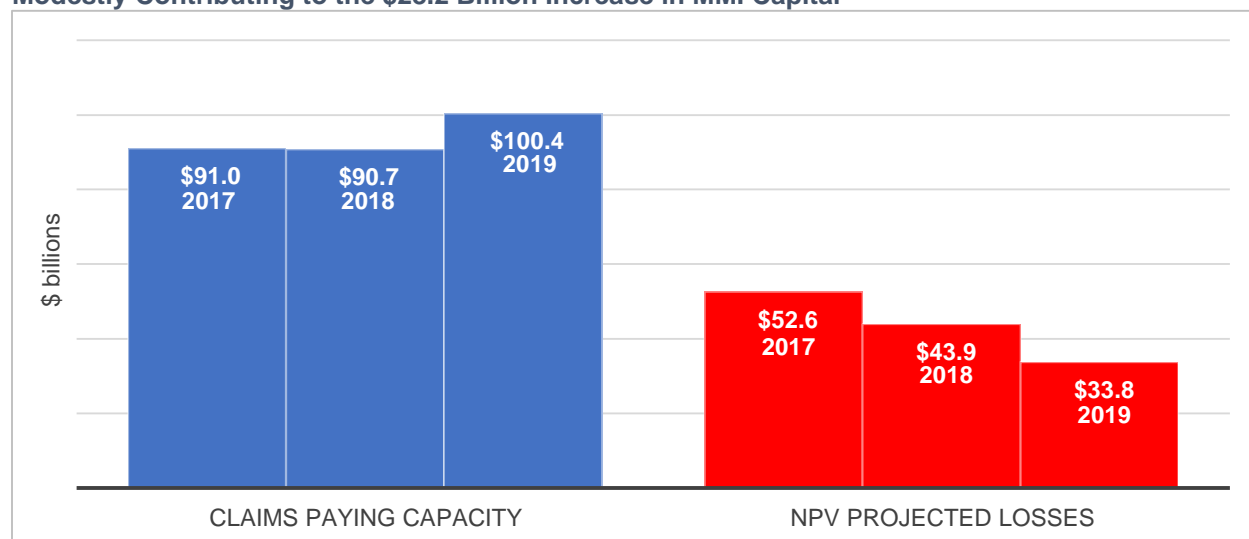
SOURCE: U.S. Department of HUD/FHA, October 2019.

Exhibit II-9, below, shows that Forward Claims Paying Capacity grew by \$9.7 billion, while a reduced NPV of Projected Losses generated \$10.1 billion of new MMI Capital. Lifetime losses are now projected to be 2.76 percent, little more than half the long-term average going back to 1980. (See Exhibit II-20 for historical loss data).

Exhibit II-9: Decrease in Projected Losses Generated \$10.1 Billion of MMI Capital for the Forward Portfolio

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-7 in Appendix C.

Exhibit II-10, below, provides insight into the drivers of the \$28.2 billion increase in MMI Forward Capital over the last two years. Growth in Claims Paying Capacity (the resources available to the Fund to pay for claims losses¹⁴ in the event of a severe economic downturn) contributed only \$9.4 billion of new MMI Capital. A reduction in NPV of Projected Losses, which fell from \$52.6 billion to \$33.8 billion, generated \$18.8 billion of new MMI Capital.

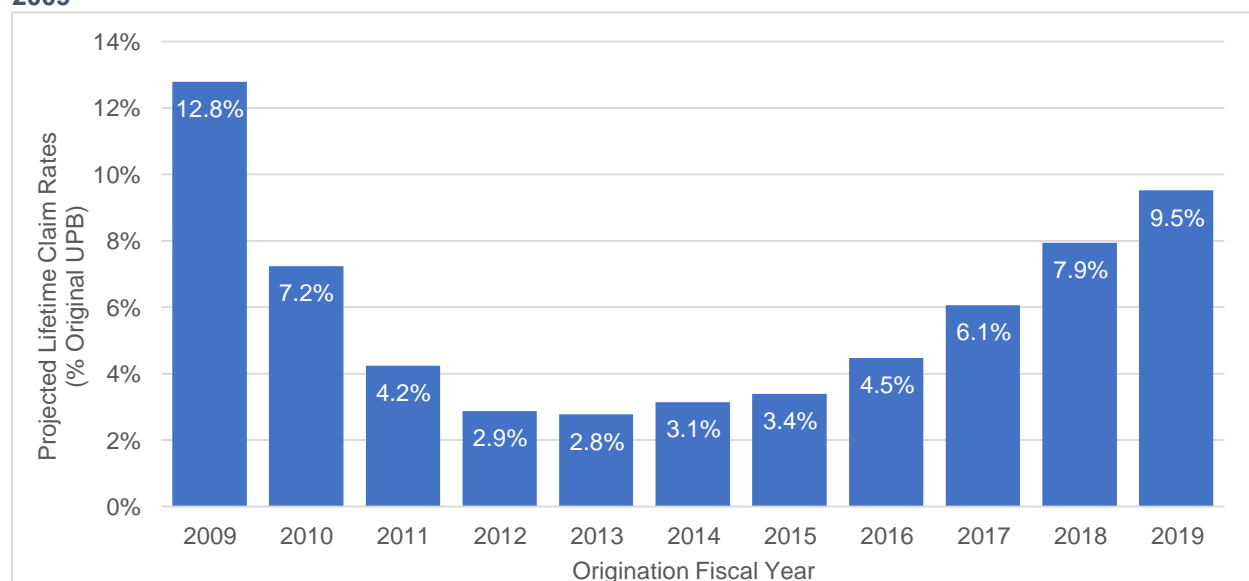
Exhibit II-10: Forward Portfolio Claims Paying Capacity grew \$9.4 Billion Over the Last 2 Years, Modestly Contributing to the \$28.2 Billion Increase in MMI Capital

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-7 in Appendix C.

¹⁴ Claims losses net of recoveries.

The Overview and Chapter 1 of this Report highlight emerging risks in the Forward portfolio, which appear to be contradicted by recent performance. A distinction should be made between the mounting risk of recent vintages and the declining risk of the overall Forward portfolio that is in large part due to sensitivity to cumulative HPA. Exhibit II-11, below, illustrates that projected lifetime claim rates for recent originations are at their highest levels since 2009.

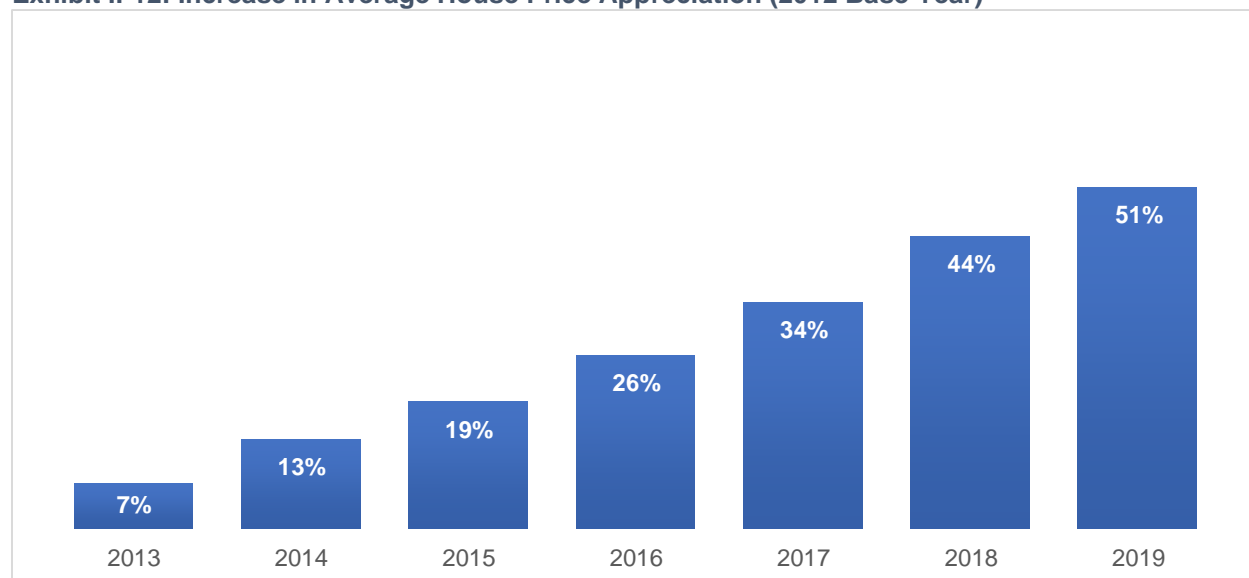
Exhibit II-11: Projected Lifetime Claim Rates for FY2019 Originations at the Highest Levels Since 2009



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-3 in Appendix C.

Nonetheless, NPV of Projected Losses of the Forward portfolio decreased by \$19 billion in the last two years, over which time average HPA has grown by 13 percent (Exhibit II-12, below).

Exhibit II-12: Increase in Average House Price Appreciation (2012 Base Year)



SOURCE: Federal Housing Finance Agency (FHFA) House Price Index, September 2019.

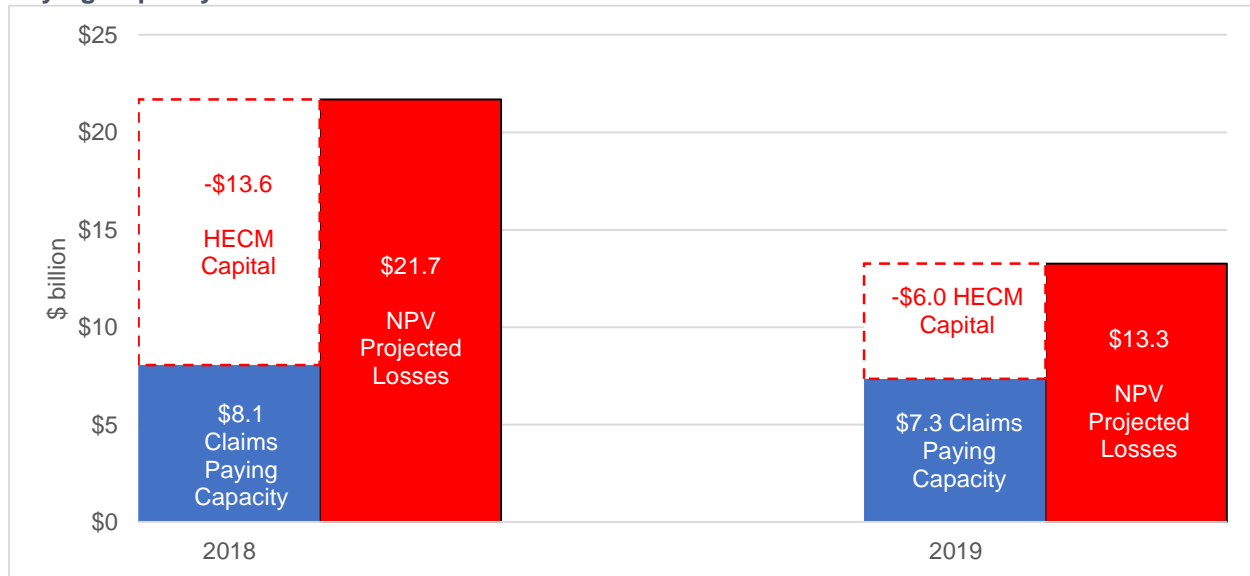
During FY 2019, the stand-alone capital ratio of the HECM portfolio increased by 9.6 percent, from negative 18.8 percent in FY 2018 to negative 9.2 percent in FY 2019. (See Exhibit II-13 below).

Exhibit II-13: HECM Stand-Alone Capital Ratio Components (\$ millions)

Description	FY 2017	FY 2018	FY 2019
Total Capital Resources	\$2,115	\$2,113	\$1,694
Plus: NPV Revenue	\$5,115	\$5,941	\$5,653
Equals: Claims Paying Capacity	\$7,230	\$8,054	\$7,347
Less: NPV Losses	(\$20,584)	(\$21,688)	(\$13,265)
Equals: MMI Capital	(\$13,354)	(\$13,634)	(\$5,918)
Insurance-In-Force	\$72,968	\$72,389	\$64,211
Equals: Total Capital Resources	2.90%	2.92%	2.64%
Plus: NPV Revenue	7.01%	8.21%	8.80%
Equals: Claims Paying Capacity	9.91%	11.13%	11.44%
Less: NPV Losses	-28.21%	-29.96%	-20.66%
Equals: Capital Ratio	-18.30%	-18.83%	-9.22%
Insurance-In-Force	100.00%	100.00%	100.00%

SOURCE: U.S. Department of HUD/FHA, October 2019.

As shown in Exhibit II-13, above, MMI Capital for the HECM portfolio increased by \$7.7 billion over the last year. As illustrated in Exhibit II-14, below, a decrease in NPV of Projected Losses generated \$8.4 billion of new MMI Capital, while Claims Paying Capacity reduced MMI Capital by \$0.7 billion.

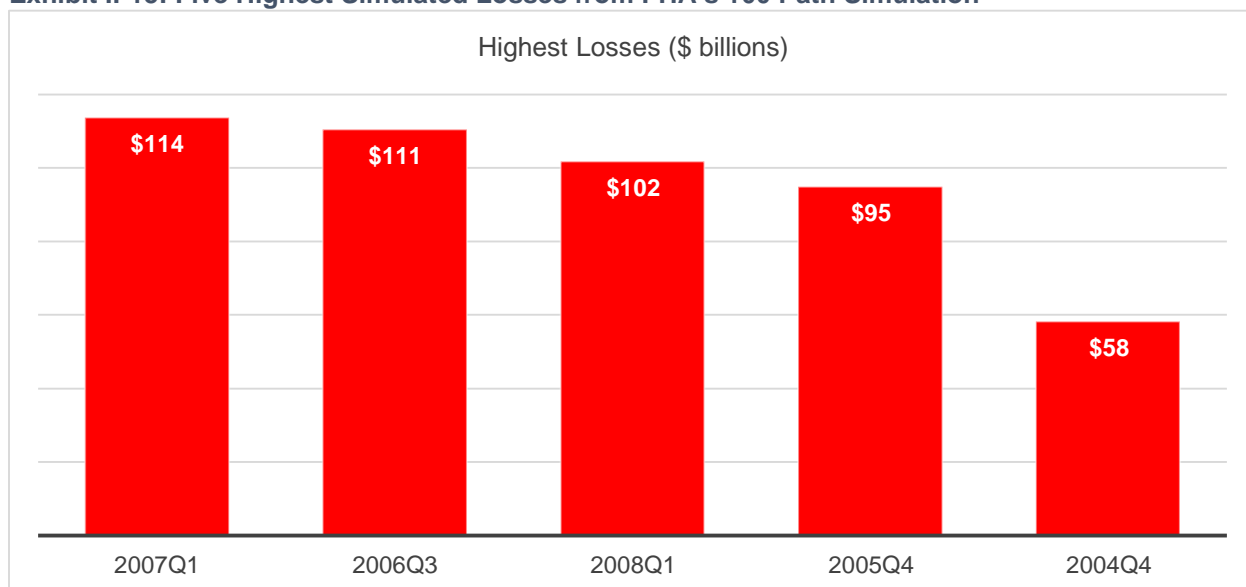
Exhibit II-14: MMI Capital for HECM Increased \$7.7 Billion Despite \$0.7 Billion Decrease in Claims Paying Capacity

SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-8 in Appendix C.

Capital Ratio Sensitivity to Modeling Assumptions

The value of MMI Capital is dependent on two macroeconomic factors, HPA and interest rates. FHA applied two approaches to better understand the interrelated impacts. Similar to previous Annual Reports, FHA ran over 100 historical scenarios to predict outcomes of potential stress events. Historical 30-year economic scenarios were constructed from actual coincident quarterly changes in interest rates and house prices starting in 1954 and continuing through 2009.

Exhibit II-15, below, highlights the five paths that resulted in the greatest losses to the MMI Fund. The economic conditions associated at the start of FY2007 Q1 resulted in simulated losses to the MMI Fund of \$114 billion, producing the highest loss of the 100 scenarios.

Exhibit II-15: Five Highest Simulated Losses from FHA's 100 Path Simulation

SOURCE: U.S. Department of HUD/FHA, October 2019.

A second method used to test the sensitivity of MMI Capital to changing economic conditions is to shift the future path of home prices and interest rates upward and downward by equal amounts.

Exhibit II-16, below, shows that the MMI Capital Ratio is seven times more sensitive to a 1 percent decrease in HPA than to the same percent change in interest rates. For example:

- 1 percent decrease in HPA would reduce MMI Capital by over \$19 billion, a 1.5 percent reduction of the MMI Fund Capital Ratio; and
- 1 percent decrease in interest rates would lower the NPV of MMI Capital by less than \$3 billion, a reduction of only 0.2 percent to the MMI Fund Capital Ratio.

Exhibit II-16: MMI Capital Ratio Seven Times More Sensitive to a Decrease in HPA than to a Decrease in Interest Rates

Run	Forward	HECM	MMI	MMI
	Capital (\$ billion)	Capital (\$ billion)	Capital (\$ billion)	Capital Ratio
Interest Rate +1%	2.6	(0.9)	1.7	0.13%
Interest Rate -1%	(3.4)	0.8	(2.6)	-0.20%
Annual HPA +1%	6.7	9.5	16.2	1.25%
Annual HPA -1%	(10.0)	(9.2)	(19.2)	-1.49%

SOURCE: U.S. Department of HUD/FHA, October 2019.

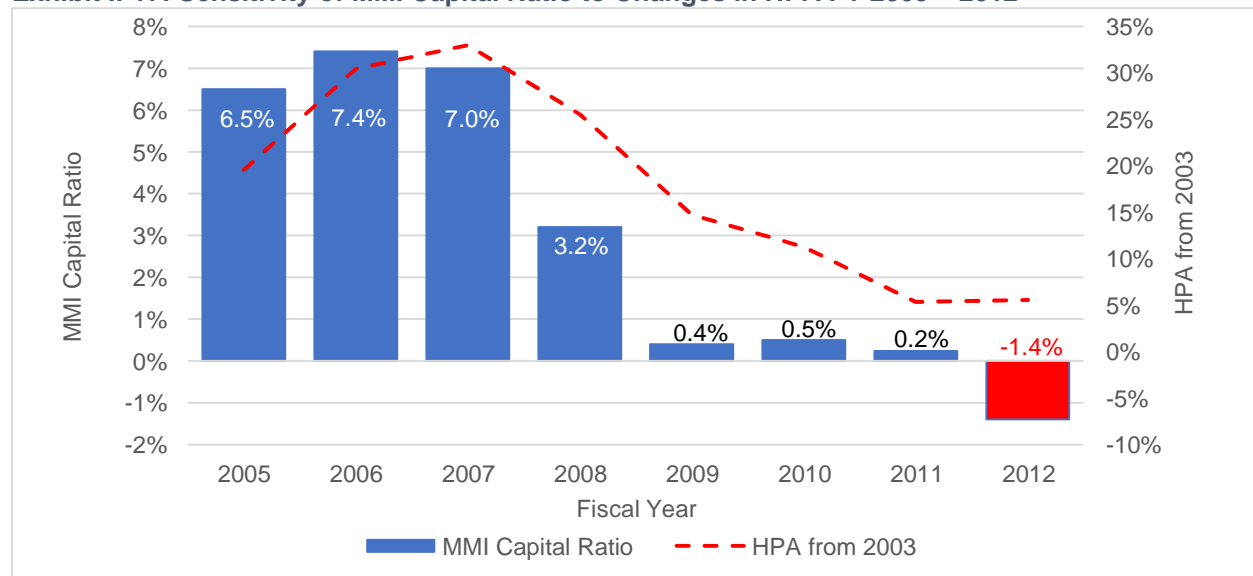
While the sensitivity analysis does not speak to the volatility of HPA, historical experience suggests that HPA can be quite volatile. Exhibit II-17, below, plots HPA and the MMI Fund Capital Ratio from 2005 through 2012. It demonstrates how HPA can reverse itself and fall as rapidly as

it has risen. Then, as a result, MMI Fund Capital Ratio can fall by more than 2 percent in a year once HPA begins to decline, consistent with results of model-driven sensitivity analyses.

HPA is a lagging indicator that tends to overstate the health of the economy during good times and overstate the severity during bad times. Observations from Exhibit II-17 underscore the procyclical nature of HPA, and therefore the MMI Fund Capital Ratio measure.

- Rising HPA from 2005 – 2007 signaled a continuation of prosperity over a period that, in hindsight, contributed the highest loss rates for the MMI Fund.
- Falling HPA signaled continued economic stress during 2010 – 2012, a period that retrospectively marked the start of a turnaround for the MMI Fund.
- Because the MMI Fund Capital Ratio is so closely tied to HPA, it shares the same tendency to overstate, then understate swings in the economy.

Exhibit II-17: Sensitivity of MMI Capital Ratio to Changes in HPA FY 2005 – 2012



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-4 in Appendix C.

Forward Mortgage Pricing

FHA's MIP pricing for forward mortgages balances the desire to prudently manage risks on behalf of the U.S. taxpayer while supporting FHA's mission to promote access to sustainable mortgage credit for qualified first-time, low- and moderate-income homebuyers.

Current MIP Pricing Offers the Typical FHA Borrower Lower Credit Costs than the GSEs

FHA insurance provides similar coverage as the combination of Private Mortgage Insurance (PMI) and the Government Sponsored Enterprise (GSE¹⁵) guarantee on mortgages with a loan-to-value

¹⁵ GSE refers to Freddie Mac or Fannie Mae.

(LTV) greater than 80 percent. PMI permits the borrower to cancel coverage once a loan reaches 78 percent of the LTV. At this point, the private mortgage insurer is no longer exposed to credit risk. However, the entire obligation for credit protection shifts to a GSE, which continues to charge a guarantee fee for the life of the loan through the securitization process. FHA coverage typically is compared to PMI only, not to the combined coverage of PMI and the GSE guarantee. Exhibit II-18, below, compares the credit pricing terms of an FHA/Ginnie Mae (GNMA)¹⁶ insured loan with two standard PMI/GSE programs for a typical FHA borrower with a 665 credit score.

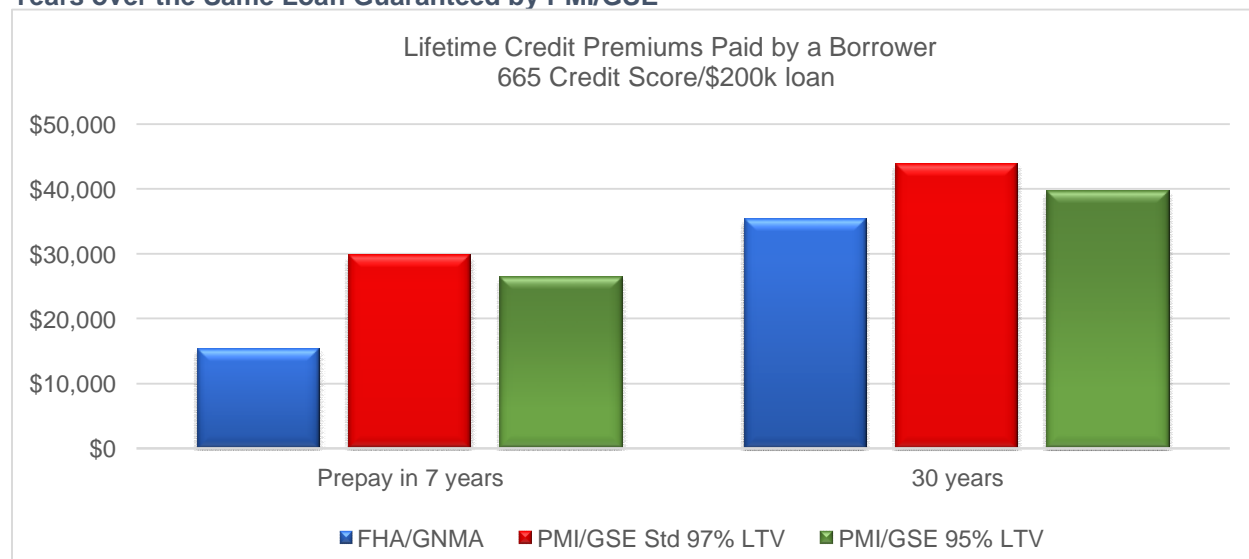
Exhibit II-18: Comparative Credit Pricing Terms for a Typical FHA Borrower (665 Credit Score)

Costs ¹⁷	FHA/GNMA	Standard PMI/GSE 97% LTV	Standard PMI/GSE 95% LTV
Up Front MIP/Loan Level Price Adjustment	1.75%	2.25%	2.25%
Annual MIP/PMI	0.85%	1.54%	1.28%
GNMA/GSE Guarantee Fee	0.06%	0.41%	0.41%

SOURCE: U.S. Department of HUD/FHA, October 2019. Radian, 2018.¹⁸ Fannie Mae, 2019.¹⁹ FHFA, 2018.²⁰

Exhibit II-19, below, applies these pricing terms and shows that the typical FHA borrower would save more than \$10,000 in credit fees over seven years compared to the same loan guaranteed by PMI/GSE. The difference narrows for a borrower who stays with the loan for 30 years. However, the FHA/GNMA borrower will still save thousands of dollars over that time period.

Exhibit II-19: A Typical FHA Borrower Would Save more than \$10,000 in Credit Fees in Seven Years over the Same Loan Guaranteed by PMI/GSE



SOURCE: U.S. Department of HUD/FHA, October 2019.

¹⁶ GNMA guarantee fee is included with FHA insurance costs.

¹⁷ Costs presented as percent of UPB.

¹⁸ <https://www.radian.biz/sfc/servlet.shepherd/version/download/068C0000003x2ZLIAY>

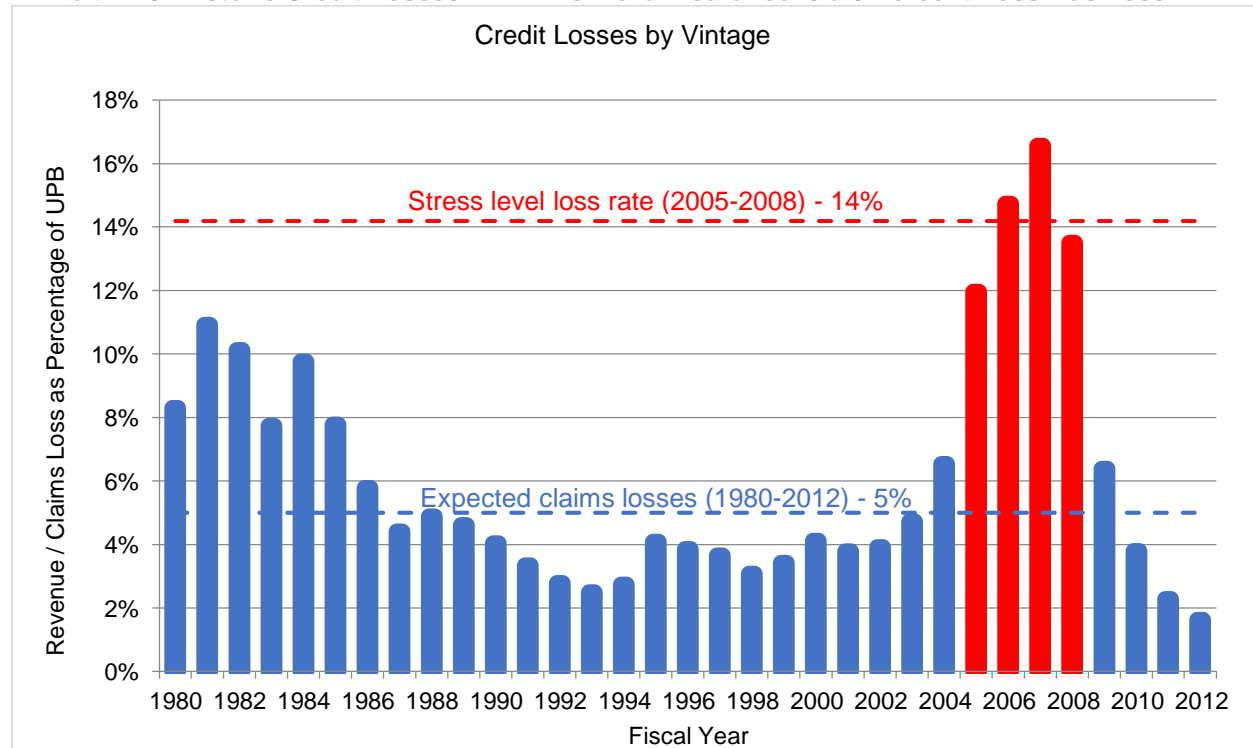
¹⁹ <https://www.fanniemae.com/content/pricing/llpa-matrix.pdf>

²⁰ https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/GFee-Report_12-10-18.pdf

Current MIP Pricing Protects Taxpayers

FHA's MIP structure covers its long run credit risk exposure while contributing a modest amount to MMI Capital. Exhibit II-20, below, provides context, showing losses going back to FY 1980 with stress level losses from FY 2005 – FY 2008 highlighted in red.

Exhibit II-20: Historic Credit Losses – FHA Forward Insurance is a 5 Percent Loss Business



SOURCE FY 2009 Actuarial Reviews of the MMI Fund; analysis by U.S. Department of HUD/FHA. Refer to data table C-5 in Appendix C.

FHA estimates expected claims losses of 5 percent based on past performance. Notably, losses for any given vintage rarely equal the long-term average. More typical is the pattern seen in Exhibit II-20, above; most vintages experience somewhat lower than expected claims losses in non-recession years, interspersed with fewer years of significantly higher losses.

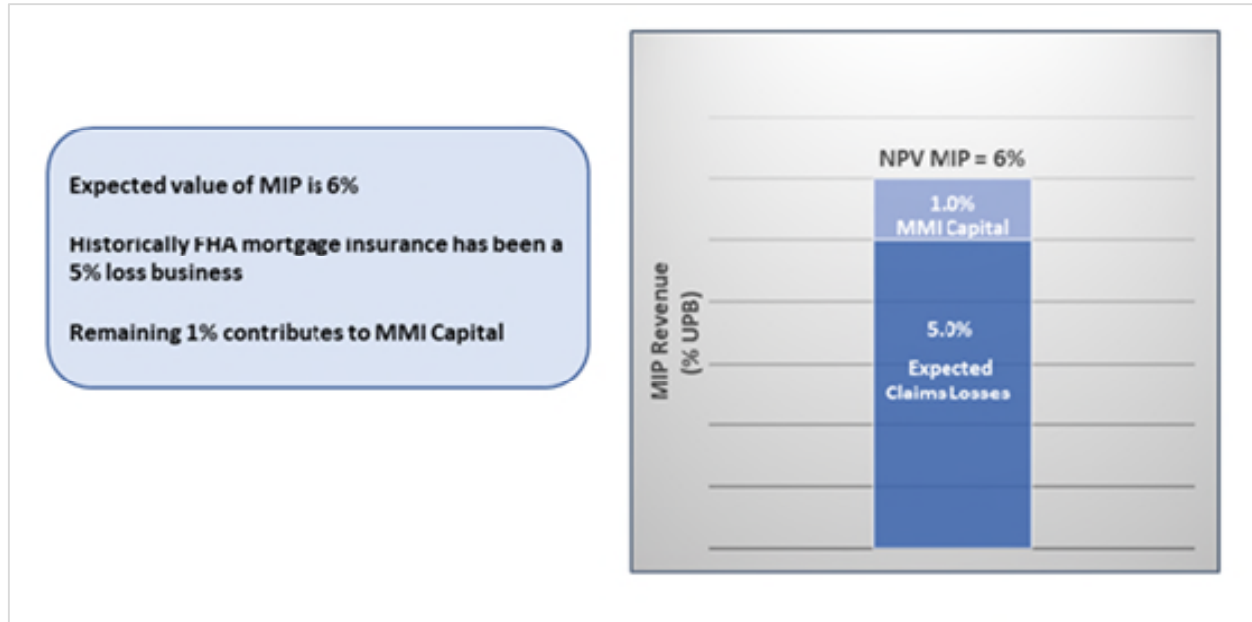
Forward mortgage MIP is priced at 6 percent²¹ to address two needs (Exhibit II-21, below):

- **Cover expected claims losses of 5 percent for Forward mortgages.** Expected loss coverage can be viewed as the “breakeven” portion of MIP pricing. The breakeven component is designed to compensate for losses incurred during normal business cycles, which would include mild recessions.
- **Contribute 1 percent MMI Capital for Forward and HECM mortgages.** Capital adequacy is an important factor in Forward MIP pricing. A capital reserve is required to cover stress level losses above and beyond what is in place to pay for expected losses. The Forward

²¹ 1.75 percent at origination plus 0.85 percent for life of loan with an assumed 5.0 year duration

MIP contributes 1 percent to MMI Capital for both the Forward and HECM portfolios, as HECM pricing alone is insufficient to consistently contribute to a capital buffer.

Exhibit II-21: Forward MIP Pricing Contributes 5 percent to Cover Expected Losses and 1 percent to MMI Capital Buffer



SOURCE: U.S. Department of HUD/FHA, October 2019.

Capital Adequacy

By statute the MMI Fund Capital Ratio is *the* metric by which performance of the MMI Fund is evaluated. However, managing the capital position of the Fund goes beyond achieving a minimum ratio at a point in time. Prudent management practice should overlay the statutory capital requirement with a risk management approach that considers the health of the economy and the sensitivity of the Fund to unexpected changes to HPA.

Claims Paying Capacity to Protect the MMI Fund from Losses Similar to Those Experienced During the Great Recession

As mentioned in page 61 of this chapter, MMI Capital is defined as follows:

$$\text{MMI Capital} = (\text{Total Capital Resources} + \text{NPV Projected Revenue} - \text{NPV Projected Losses})$$

Claims Paying Capacity, representing resources available to pay for claims losses, is composed of two of the three components in the MMI Capital calculation:

$$\text{Claims Paying Capacity} = (\text{Total Capital Resources} + \text{NPV Projected Revenue})$$

A best-practice approach for managing the credit risk of a large mortgage portfolio is to establish a capital buffer to protect against a chosen stress-level loss event. Claims Paying Capacity provides an internal metric that aligns with the concept of a capital buffer. This risk management

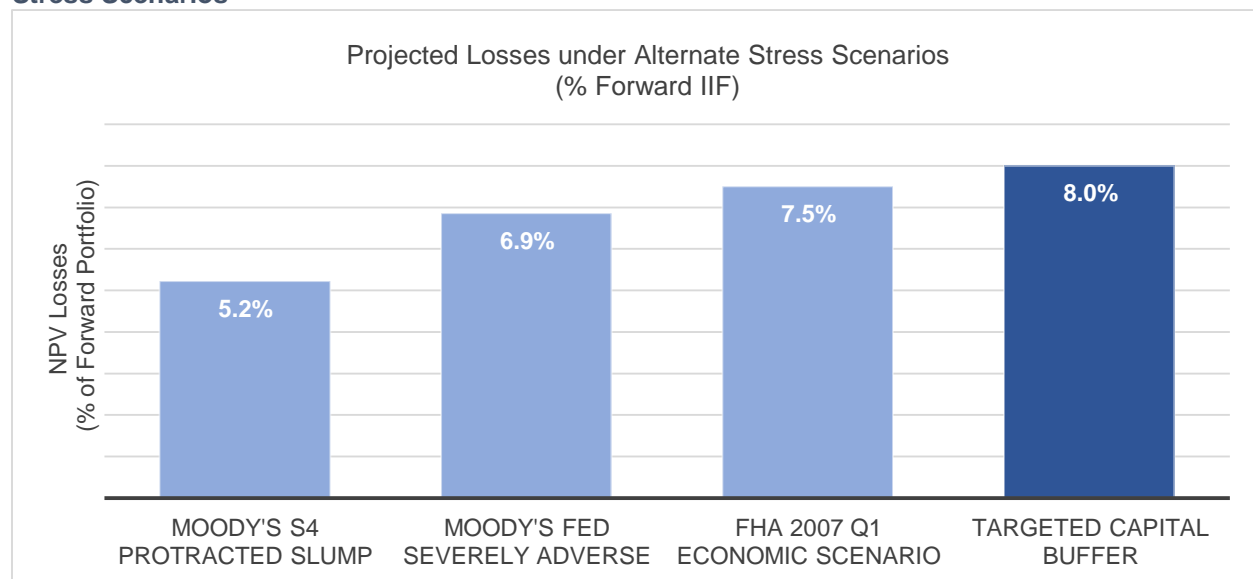
approach would provide the best protection to the MMI Capital Ratio from going negative in the event of a serious economic downturn by reducing the reliance on lagging, pro-cyclical indicators of the state of the economy, such as HPA. Ultimately, this would place FHA in a stronger position to facilitate its counter-cyclical role in an economic downturn.

A review of performance of the Forward portfolio during the Great Recession suggests that Claims Paying Capacity equal to 8 percent of the total Forward portfolio's UPB would protect the current portfolio from a similar stress event. This would equate to a \$98 billion capital buffer on the \$1.224 trillion Forward portfolio, an amount that is targeted to prevent the MMI Fund Capital Ratio for the Forward portfolio from falling below zero percent.

Results of simulated Stress Scenarios shown by Exhibit II-22 below, support the reasonableness of this internal guideline. The following are descriptions of the stress scenarios:

- **FHA FY2007 Q1 Economic Scenario** - FHA simulated the performance of the MMI portfolio using economic conditions going back to 1954 and identified the economic conditions starting in FY2007 Q1 would have resulted in the highest losses (7.5 percent) for today's Forward portfolio.
- **Moody's Scenarios** – Moody's provides simulated economic conditions for a range of outcomes, with Protracted Slump and Severely Fed Adverse representing the most stressful scenarios.

Exhibit II-22: 8 Percent Target for Claims Paying Capacity is Similar to Results of Other Standard Stress Scenarios



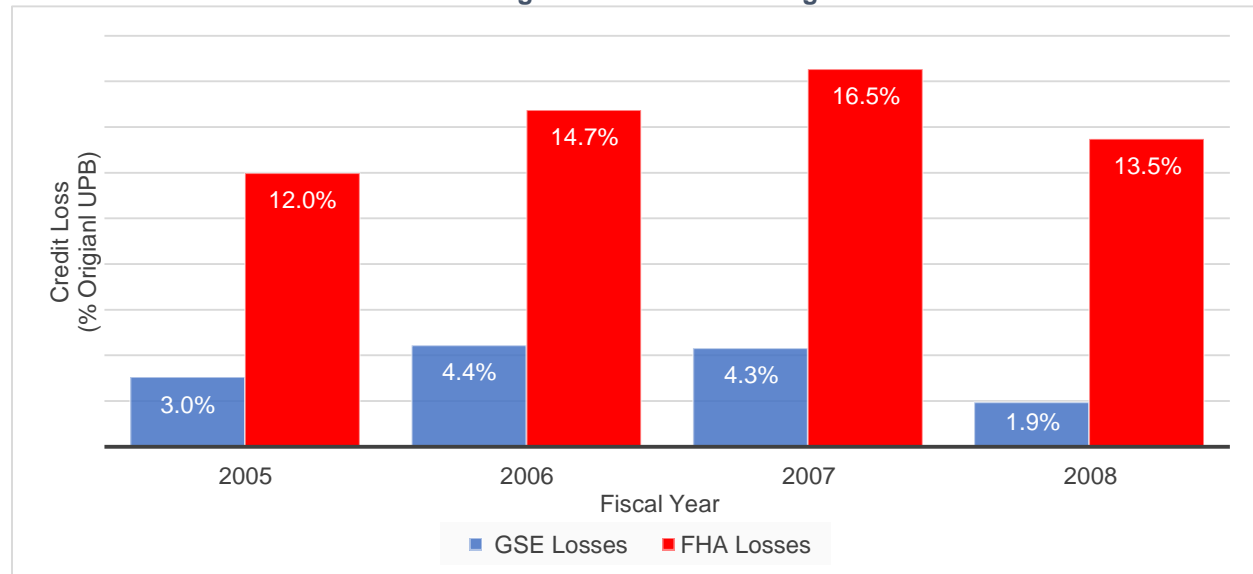
SOURCE: U.S. Department of HUD/FHA, October 2019.

Another benchmark for comparison is provided by the proposed Conservator Capital Framework (CCF) recently submitted by the Federal Housing Finance Agency (FHFA) for public comment.

Table 5 of the CCF document suggests Net Credit Capital would be 2 percent before adjusting for Credit Risk Transfer (CRT) transactions²².

The 8 percent internal Claims Paying Capacity target, referenced above, is 4 times higher than the proposed 2 percent credit capital level for GSEs. This ratio is commensurate with FHA risk taken relative to the GSEs; FHA's losses were about four times higher during the peak of the Great Recession (2005 – 2008), as illustrated in Exhibit II-23, below. FHA losses were 10 times higher for the non-recession years between 2001 and 2012.

Exhibit II-23: FHA Losses Four Times Higher Than GSEs During the Great Recession



SOURCE: U.S. Department of HUD/FHA, October 2019. Fannie Mae, 2019.²³ Freddie Mac, 2019.²⁴

Claims Paying Capacity of 35 Percent Would Protect the HECM Portfolio from Stress Losses Incurred During the Great Recession

In addition to the \$1.224 trillion of active insurance on Forward mortgages, the MMI Fund portfolio includes a \$64 billion HECM portfolio. Although HECMs comprise only 6 percent of the MMI Fund portfolio, their impact is outsized relative to their IIF share. Model sensitivities, shown in Exhibit II-16 indicate that when HPA decreases by one percent, the HECM portfolio will contribute about 48 percent of the loss to the entire MMI Fund portfolio, a significantly larger impact than its 6 percent portfolio share would imply.

In FY 2018, NPV Projected Losses for the HECM portfolio reached negative 30 percent without a significant change in macroeconomic conditions. This indicates that Claims Paying Capacity

²² From Table 5 of Conservator Capital Framework, \$112 Billion pre-CRT Capital required for \$5,579 Total Assets and Off-balance Sheet Guarantees <https://www.govinfo.gov/content/pkg/FR-2018-07-17/pdf/2018-14255.pdf>

²³ <https://www.fanniemae.com/resources/file/credit-risk/pdf/cas-program-investor-presentation.pdf>

²⁴ https://crt.freddie.mac.com/_assets/docs/offerings/stacr/stacr-sfllid-performance-deck.pdf

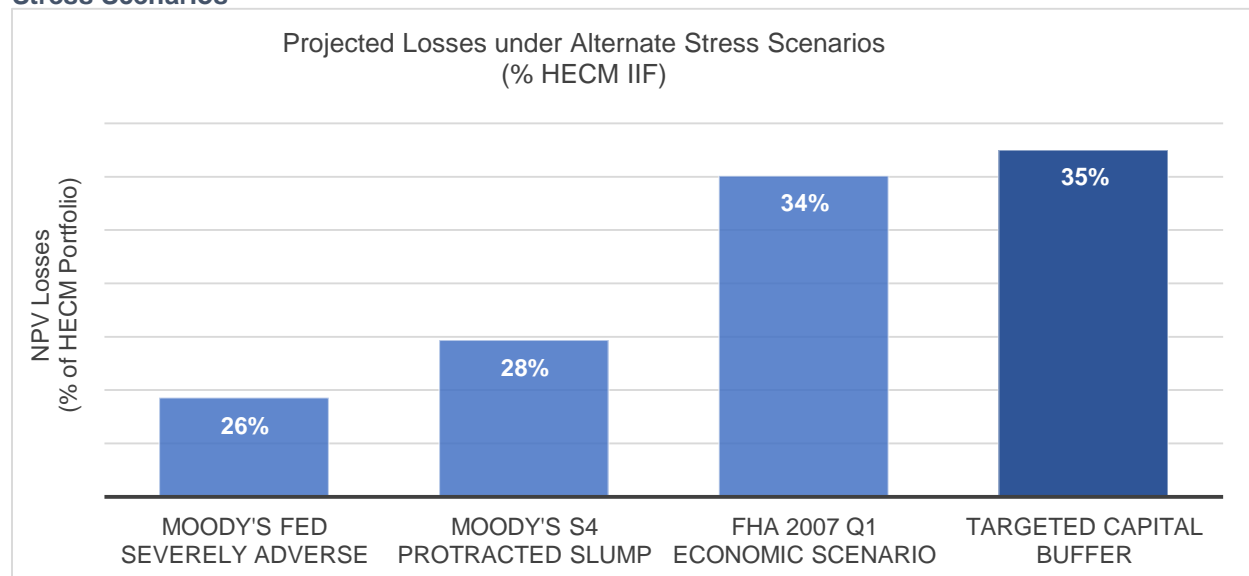
greater than 30 percent would be required to withstand a stress event equivalent to the Great Recession.

Results of simulated Stress Scenarios shown below support the reasonableness of a 35 percent internal guideline.

- **FHA FY2007 Q1 Economic Scenario** - FHA simulated the performance of the current MMI portfolio using economic conditions going back to 1954 and identified the economic conditions starting in FY2007 Q1 would have resulted in the highest losses (34 percent) for today's HECM portfolio.
- **Two Moody's Scenarios** – Moody's provides simulated economic conditions for a range of outcomes, with Protracted Slump and Severely Fed Adverse representing the most stressful scenarios.

Exhibit II-24, below, shows simulated losses for the HECM portfolios under the FY2007 Q2 Economic Scenario, the highest FHA loss scenario. It suggests that a Claims Paying Capacity equal to 35 percent of IIF (\$24 billion) would be required to cover losses in the HECM book if a future stressed scenario similar to the Great Recession occurred.

Exhibit II-24: 35 Percent Target for Claims Paying Capacity is Similar to Results of Other Standard Stress Scenarios



SOURCE: U.S. Department of HUD/FHA, October 2019.

Currently, the HECM portfolio has approximately \$8 billion of Claims Paying Capacity (i.e., \$5.6 billion NPV of Projected MIP plus \$2.1 billion in Total Capital Resources). The HECM portfolio would need to accumulate an additional \$16 billion of capital to achieve 35 percent Claims Paying Capacity.

MMI Capital Ratio a Result, Not the Target

As shown by Exhibit II-25, below, the targeted level of Claims Paying Capacity for the MMI Fund portfolio would be \$120.4 billion, the sum of:

- 8 percent Forward IIF (\$97.9 Billion)
- 35 percent HECM IIF (\$22.5 Billion)

Exhibit II-25: Internal Target is 9.3 Percent Claim Paying Capacity for the MMI Fund

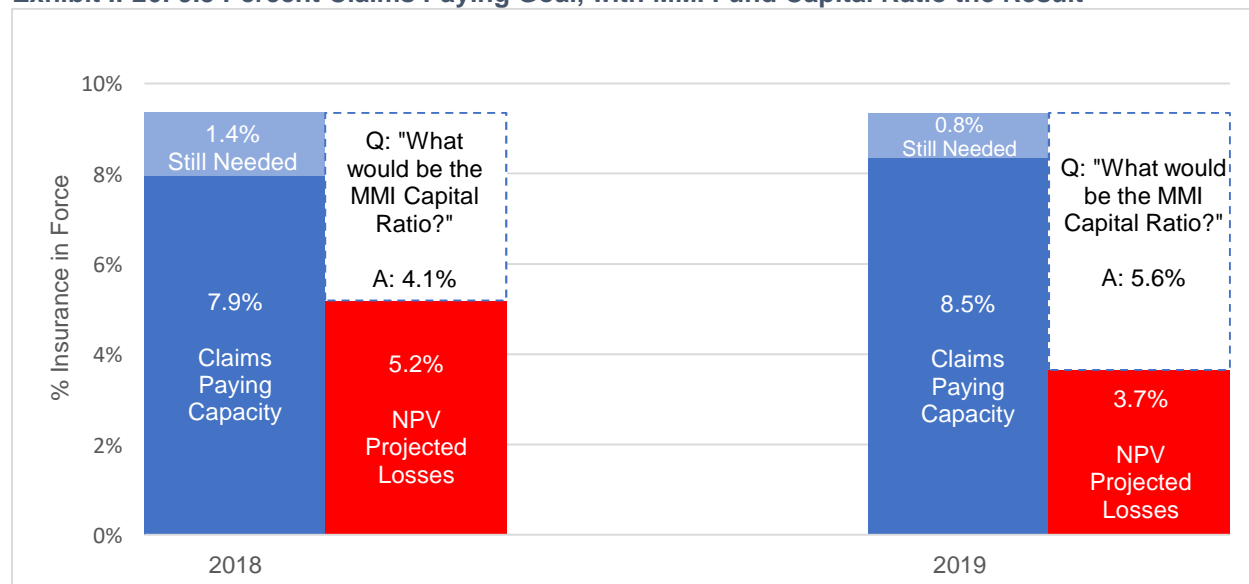
Portfolio	Insurance-in-Force	Claims Paying Capacity					
		Internal Target		In Hand ²⁵		Needed to Reach Target	
		(%)	(\$ billion)	(%)	(\$ billion)	(%)	(\$ billion)
Forward	\$1,224.2	8.0%	\$97.9	8.2%	\$100.4	-0.2%	(\$2.4)
HECM	\$64.2	35.0%	\$22.5	11.4%	\$7.3	23.6%	\$15.1
MMI	\$1,288.4	9.3%	\$120.4	8.5%	\$109.4	0.8%	\$ 11.0

SOURCE: U.S. Department of HUD/FHA, October 2019.

Currently, \$120.4 billion would translate to an internal capital target of 9.3 percent of IIF based on the current portfolio size (\$1,224.2 billion Forward, \$64.2 billion HECM), compared to the current Claims Paying Capacity of \$109.4 billion.

In FY 2018, the MMI Fund Capital Ratio would have been 4.1 percent if the \$120 billion target was met. In FY 2019 it would have been 5.6 percent, as illustrated by Exhibit II-26, below.

Exhibit II-26: 9.3 Percent Claims Paying Goal, with MMI Fund Capital Ratio the Result



SOURCE: U.S. Department of HUD/FHA, October 2019.
Refer to data table C-6 in Appendix C.

²⁵ MMI "In Hand" includes \$1.7 mandatory appropriation from 2013

FHA's internal focus is to manage Claims Paying Capacity to a relatively stable target, currently about \$120 billion. This would provide the best protection to the MMI Capital Ratio from going negative in the event of a serious economic downturn by reducing reliance on lagging, pro-cyclical indicators of the state of the economy, such as HPA. Ultimately, this would place FHA in a stronger position to facilitate its counter-cyclical role in an economic downturn.

Independent Actuary for FY 2019 Confirms Baseline Projections Are Reasonable

12 USC § 1708(a)(4) requires FHA to annually provide for an independent actuarial study of the MMI Fund and to submit a report to Congress describing the results of such study. For this Annual Report, FHA engaged Pinnacle Actuarial Resources (Pinnacle) to test the reasonableness of its FY 2019 estimates of Forward and Home Equity Conversion Mortgage (HECM) Cash Flow Net Present Values (NPVs). The actuary serves as an independent check of FHA's methodology. FHA's and Pinnacle's estimates were prepared in accordance with the Federal Credit Reform Act and Actuarial Standards of Practice.

Forecast scenarios of Cash Flow NPV were estimated by FHA, and tested for reasonableness by the independent actuary, Pinnacle. For FY 2019, Pinnacle concluded that FHA's Cash Flow NPV is reasonable and within Pinnacle's reasonable range of Actuarial Estimates. Details are provided below:

- **Forward portfolio** - Pinnacle concluded that FHA's \$12.01 billion estimate of Forward Cash Flow NPV is reasonable. Pinnacle estimated Forward Cash Flow NPV at \$18.64 billion. Pinnacle estimated the range of reasonable estimates for Forward Cash Flow NPV as negative \$41.91 billion to \$26.75 billion.
- **HECM portfolio** - Pinnacle also concluded that FHA's negative \$7.61 billion estimate of HECM Cash Flow NPV is reasonable. Pinnacle independently estimated HECM's Cash Flow NPV at negative \$11.23 billion. Pinnacle independently estimated the range of reasonable estimates for HECM Cash Flow NPV as negative \$41.09 billion to \$0.32 billion.
- **MMI Fund portfolio** - Pinnacle's Cash Flow NPV estimates for Forward and HECM combined total \$7.42 billion versus \$4.40 billion for FHA's baseline estimate. The difference between the two estimates of \$3.01 billion is 0.23 percent of IIF.

Pinnacle's Actuarial Reviews for the Forward and HECM portfolios are available on FHA's website at: https://www.hud.gov/program_offices/housing/rmra/oe/rpts/actr/actrmenu.

Chapter III: New Policy and IT Modernization

FHA made policy decisions during FY 2019 to balance risk to the Mutual Mortgage Insurance (MMI) Fund with its mission to serve those who are underserved by the conventional mortgage market. The following information provides a summary of the main policy actions initiated throughout the past fiscal year. It also addresses plans to modernize FHA's IT infrastructure.

Improvements to Counterparty Risk and Lender Compliance

FHA's lender base has shifted substantially in the last decade. The share of FHA Single Family mortgages underwritten by depository institutions was approximately 43 percent in FY 2010 and declined significantly to 13.64 percent in FY 2019. This shift has limited the sources of FHA-insured financing available to consumers. Depositories have cited potential legal liability related to enforcement actions under the False Claims Act as a leading reason for their limited participation in the FHA program.

To improve the clarity of regulatory expectations within FHA programs, HUD and the U.S. Department of Justice signed a Memorandum of Understanding (MOU) in October 2019, that sets prudential guidance on the appropriate use of the False Claims Act (FCA) for violations of FHA requirements by FHA-approved lenders. Specifically, the MOU sets forth a process for deciding when to pursue an FCA case to remedy material and knowing FHA violations. The MOU makes clear that HUD expects that FHA requirements will be enforced primarily through HUD's administrative proceedings.

To further provide certainty and clarity with respect to FHA program requirements, FHA made changes to its loan-level certifications, annual lender certifications and its Loan Quality Assessment Methodology (Defect Taxonomy). These changes will help lenders understand how enforcement remedies relate to violations, enable lenders to better manage risk, and more closely align program requirements with statutes and regulations. FHA believes this improved certainty will result in depository and other lending institutions increasing their focus on offering FHA financing to creditworthy borrowers.

This work fulfills a key component of HUD's Housing Finance Reform Plan issued in response to the President's March 27, 2019, memorandum on Federal Housing Finance Reform. The President's memorandum directed FHA to diversify the network of FHA-approved lenders by encouraging, "increased participation by registered depository institutions." Participation in FHA lending by these highly regulated and well-capitalized lenders will offer consumers more choice and provides greater protection to the MMI Fund and taxpayers.

Loan-Level Certification

FHA's work to provide greater clarity and streamline FHA program requirements included important updates to the loan-level certifications on Form HUD-92900-A, 'Addendum to the Uniform Residential Loan Application.' FHA revised Form HUD-92900-A to be concise, while appropriately addressing FHA's statutory and regulatory program requirements in a way that is easily understood by all parties. These changes streamline and reorganize the form in a logical format and eliminate the collection of information available elsewhere. An improved Form HUD-92900-A will allow FHA to work more effectively with its lender partners, while enabling the Department to continue to hold lenders accountable for compliance with all HUD eligibility and approval requirements.

FHA posted the proposed changes to the loan-level certifications (Form HUD-92900-A) on the *Single Family Housing Policy Drafting Table* (Drafting Table) for feedback on May 9, 2019. Subsequently, FHA published a Federal Register Notice with the revised draft, as required by the Paperwork Reduction Act (PRA) on October 25, 2019. FHA anticipates *Federal Register* publication of the final revised loan-level certification in FY 2020.

Annual Lender Certification

FHA-approved lenders are required to complete an annual certification of compliance with HUD approval and eligibility requirements. In FY 2019, FHA worked to streamline the annual lender certification to address materiality and better align the certification with HUD statutes and regulations. FHA posted proposed changes on the Drafting Table on May 9, 2019. After considering public feedback, FHA posted the revised certification on the Drafting Table and published a PRA Notice in the *Federal Register* on August 14, 2019. FHA issued a final *Federal Register* Notice on October 25, 2019 that required the final certification statements to be used by lenders that have a fiscal year end date of December 31, 2019.

Defect Taxonomy

The Defect Taxonomy is FHA's method of identifying underwriting defects at the loan level. FHA originally created the Defect Taxonomy in 2015 and implemented it through the Loan Review System in 2017. It provides useful data for FHA and lenders by identifying loan-level defects and their sources, causes, and severities through a structured categorization.

In FY 2019, FHA developed Version 2 of the Defect Taxonomy. Version 2 includes modifications to severity tiers, potential remedies that align with each tier, and specific HUD policy references that relate to each defect category.

FHA posted a preliminary draft of the Defect Taxonomy Version 2 on the Drafting Table in May 2019, and then made revisions after assessing the public feedback. FHA posted the final Defect Taxonomy Version 2 on HUD's website on October 25, 2019 with an effective date of January 1, 2020.

Final Condominium Rule Increases Affordable Housing

In recognition of the value of condominiums in expanding the supply of affordable housing, FHA made significant policy changes during FY 2019 to make it easier for homebuyers to purchase a condominium using FHA-insured financing. In August 2019, FHA published the *Project Approval for Single-Family Condominiums* Final Rule (Condominium Project Final Rule) to codify the condominium project approval requirements as mandated by the Housing and Economic Recovery Act of 2008 and the Housing Opportunity through Modernization Act of 2016.

The Condominium Project Final Rule streamlined condominium project approval requirements and introduced the Single-Unit Approval process. Single-Unit Approval creates an opportunity for prospective borrowers to obtain FHA-insured financing on a single unit in a condominium project that is not FHA-approved, if the project meets certain minimum eligibility requirements. This new process reduces the burden of project approval to allow individual condominium units to be eligible for FHA-insured financing and expands the number of eligible properties for homebuyers.

The Condominium Project Final Rule also extends the project approval period from two to three years before requiring recertification. Extending the certification period reduces the regulatory and financial burden of obtaining FHA condominium project approval. The rule also establishes ranges for acceptable levels of owner-occupants, commercial/non-residential space, and FHA insurance concentration requirements, which provide the flexibility to respond quickly to housing market changes.

The Condominium Project Final Rule went into effect on October 15, 2019. The specific requirements and standards associated with the Condominium Project Final Rule are set forth in the *Single Family Housing Policy Handbook* 4000.1 (SF Handbook).

Changes to the HECM Program

FHA issued new policy in FY 2019 to improve the fiscal soundness and viability of the HECM program. In Mortgagee Letter (ML) 2019-16, *Home Equity Conversion Mortgage (HECM) Program – Continuation of HECM Collateral Risk Assessment Requirements*, FHA made permanent its HECM collateral risk assessment policy that was set to expire September 30, 2019. This policy addresses inflated property appraisals by requiring a second appraisal when FHA determines that the first appraisal needs additional support. Through FHA's ongoing evaluation of the HECM portfolio, the policy was found to have an estimated reduction to FHA's risk exposure of approximately \$250.3 million per year, as indicated in the ML.²⁶ With the projected reduction in appraisal inflation, FHA's actuarial model indicated lower lifetime default rates and increased lifetime recoveries which would reduce program costs to taxpayers.

²⁶ Mortgagee Letter 2019-16, *Home Equity Conversion Mortgage (HECM) Program – Continuation of HECM Collateral Risk Assessment Requirements*, issued September 23, 2019.

On September 23, 2019, FHA published Mortgagee Letter (ML) 2019-15 entitled, *Updates to the Mortgagee Optional Election (MOE) Assignment for Home Equity Conversion Mortgages (HECMs)*, which provides more guidance for HECMs with FHA case numbers assigned prior to August 4, 2014. An MOE assignment permits mortgagees, in circumstances involving a non-borrowing spouse, the opportunity to defer the due and payable date of a HECM meeting certain eligibility requirements and assign it to FHA. This ML eliminated MOE assignment election and assessment deadlines, along with associated notification requirements. The ML instead implemented a 180-day reasonable diligence timeframe for mortgagees to initiate an MOE election. Moreover, this ML eliminated the 120 day timeframe for bringing current all property charges on a HECM that is subject to a pre-existing loss mitigation plan and eliminated the requirement for an Eligible Surviving Non-Borrowing Spouse to obtain good and marketable title to the property which secured the HECM or demonstrate the legal right to reside in the property for life. Finally, this ML provided guidance related to non-borrowing spouses, as well as to the heirs of the last surviving HECM borrower, who inherit a home that is secured by a HECM loan.

Also, FHA made changes to the HECM condominium requirements on September 27, 2019, through Mortgagee Letter (ML) 2019-17 entitled, *Home Equity Conversion Mortgage (HECM) Program – Condominium Requirements*. This ML updated the origination requirements for HECMs in condominium projects in accordance with the recently published SF Handbook guidance specific to HECM and condominiums. The ML included certain borrower eligibility requirements for seniors seeking to obtain a HECM for a condominium unit using FHA's Single-Unit Approval process.

Changes to FHA's TOTAL Mortgage Scorecard Mitigate Risk

During FY 2019, FHA made changes to its Technology Open to Approved Lenders (TOTAL) Mortgage Scorecard, an evaluation tool which assesses a borrower's credit history and application information. The TOTAL mortgage scorecard is configured to account for FHA's underwriting guidelines. Lenders process loan applications through TOTAL, which does not render a credit decision, but rather enhances FHA's ability to assess and manage risk, monitor trends, and evaluate policy with the capture of credit and loan application data. In March 2019, FHA adjusted the TOTAL default risk attributes to account for emerging default risk indicators to help balance risk of loss against FHA's mission of making sustainable homeownership available.

The updates to FHA's underwriting guidelines in the TOTAL mortgage scorecard were designed specifically to manage the decrease in average borrower credit scores and the risk layering that results when multiple risk factors are present. FHA based its changes to the TOTAL mortgage scorecard on higher-risk credit characteristics which were included in the communication announcing the changes.²⁷ Those higher-risk characteristics are as follows:

²⁷ FHA INFO #19-07, https://www.hud.gov/sites/dfiles/SFH/documents/SFH_FHA_INFO_19-07.pdf

- An increase in the concentration of mortgages with high debt-to-income (DTI) ratios, where almost 25 percent of all FHA-insured forward mortgage purchase transactions in FY 2018 were comprised of mortgages where the borrower had a DTI ratio above 50 percent, the highest percentage since the year 2000. The increase in higher DTI concentrations continued in FY 2019, with more than 28 percent of January endorsements having a DTI ratio greater than 50 percent.
- A decrease in average borrower credit scores to 670 for FY 2018, the lowest average since 2008. This decline has continued in FY 2019 with more than 28 percent of new forward mortgage endorsements in the first quarter of FY 2019 had credit scores less than 640.
- More than 13 percent of new forward mortgage endorsements in the first quarter of FY 2019 had credit scores less than 620, nearly a 19 percent increase over the FY 2018 concentration.
- An increasing concentration of credit scores less than 640 combined with DTI ratios greater than 50 percent over FY 2018.

As designed, the TOTAL Mortgage Scorecard adjustments will require mortgages with a combination of higher-risk characteristics to undergo a manual underwriting process. The growth in manual underwriting after the TOTAL scorecard mortgage adjustment increased 4.8 percent from April to June 2019 as compared to the same period in 2018.

Changes to Cash-Out Refinance Mortgages

FHA has experienced a growth in cash-out refinances as a percentage of both its overall business and its refinance endorsement volume over the past several years. FHA endorsements with cash-out refinance mortgages increased by 250.47 percent - from 43,052 in FY 2013, which had the lowest share of cash-out refinances - to 150,883 in FY 2018.²⁸ To address this growth and manage risk, FHA published Mortgagee Letter (ML) 2019-11, *Maximum Loan-to-Value and Combined Loan-to-Value Percentages for Cash-out Refinance Mortgages*, on August 1, 2019. This ML reduced FHA's maximum loan-to-value (LTV) and combined loan-to-value (CLTV) percentages for cash-out refinance mortgages from 85 percent to 80 percent. This new policy aligns with the Government Sponsored Enterprises' policy regarding maximum LTV/CLTV percentages.

The standards in the ML became effective for mortgages with case numbers assigned on or after September 1, 2019.

Disaster Recovery Efforts

Natural disasters continued to proliferate during FY 2019, and FHA made policy changes to further support individuals in disaster areas while taking actions to mitigate its exposure. In response to a Presidentially Declared Major Disaster Area (PDMDA) declaration, FHA's standing policy triggers a foreclosure moratorium for a ninety-day period for forward mortgages and

²⁸ See Mortgagee Letter 2019-11, *Maximum Loan-to-Value and Combined Loan-to-Value Percentages for Cash-out Refinance Mortgages*, issued August 1, 2019.

makes mortgage finance options available to qualified borrowers to repair their home and refinance their mortgage. Disaster victims may also qualify to buy a new home with 100 percent financing in circumstances where their home was significantly damaged or destroyed.

Additionally, FHA offers loss mitigation to impacted homeowners with an FHA-insured mortgage who have difficulty making their monthly mortgage payment. Under FHA's loss mitigation policy, affected borrowers in disaster areas can qualify for a forbearance, which is a period of reduced or suspended mortgage payments.

In August 2019, FHA issued Mortgagee Letter (ML) 2019-14, *Updates to FHA's Loss Mitigation Options for Borrowers in Presidentially-Declared Major Disaster Areas (PDMDAs)*, which provided eligible borrowers the ability to qualify for a loan modification using either streamlined documentation or a three month trial payment. This ML also makes permanent the Disaster Standalone Partial Claim which lets borrowers resume their pre-disaster mortgage payment of principal and interest and places the borrower's arrearages in a subordinate lien to be paid off at the maturity of the FHA-insured mortgage, the sale of the property, or the payoff or non-FHA refinancing of the FHA-insured mortgage. FHA made this tool part of the permanent disaster loss mitigation waterfall because of the benefit it provided to struggling FHA borrowers while decreasing the losses to the MMI Fund.

Borrowers who do not qualify for the Disaster Standalone Partial Claim will be considered for FHA-Home Affordable Modification Program (FHA-HAMP) which offers a loan modification or partial claim or both and targets a 20 percent payment reduction. Under the FHA-HAMP option, a partial claim is FHA's reimbursement of a mortgagee's advancement of funds on behalf of the borrower in an amount necessary to reinstate the delinquent mortgage.

FHA will continue to provide support in the aftermath of disasters while closely monitoring our portfolio.

Handbook Updates

The *Single Family Housing Policy Handbook* (SF Handbook) 4000.1 is the central source of FHA policy requirements for lenders and other business partners. It includes most policy changes and updates made through the *Federal Register* Notices and Final Rules, Mortgagee Letters, policy waivers, and other policy announcements. It was updated in FY 2019 to include new policy requirements for both loan origination and loan servicing.

FHA updated its Handbook this year to include several changes to our loan origination policy. FHA updated the definition of Minimum Decision Credit Score to address the application of a median score to account for instances where two or more credit scores are the same. FHA also included

a change that treats Tip Income the same as Overtime or Bonus Income recognizing that potential FHA borrowers may participate in the ever-expanding service economy. Further, FHA made changes to the net tangible benefit guidance in the Streamline Refinance program to distinguish requirements for refinances with or without a term reduction.

FHA also made a key SF Handbook change where a Presidentially-Declared Major Disaster Area (PDMDA) has been declared. Previously, properties financed with FHA mortgages that were set to close or awaiting loan endorsement had to be inspected after the disaster Incident Period end date, which is determined by Federal Emergency Management Agency (FEMA). The Incident Period end date might not be announced until several weeks after the disaster causing significant delays in closing and endorsing loans. In July 2019, FHA updated its policies to permit the damage inspection report to be dated after the Incident Period end date or 14 days from the Incident Period start date, whichever is earlier. This policy change ensures responsible lending is not unnecessarily delayed after a disaster.

During FY 19 FHA published two SF Handbook updates, including the publication of the Condominium Project Approval and Condominium Requirements sections.

Information Technology Modernization

FHA is undertaking a comprehensive, multi-year Information Technology (IT) modernization effort to bring its technology infrastructure to streamline doing business with FHA and increase efficiency. The plan is to bring FHA's IT infrastructure into alignment with 21st century mortgage industry standards. The IT transformation has started with the Single Family insurance programs and will eventually encompass FHA's Multifamily and Healthcare programs.

FHA's Single Family business currently runs off of 15 of systems, some of which are more than 40 years old. These systems rely on antiquated programming language developed over a half century ago. Frequent system failures and other technology service breaks result in delays, increase FHA risk exposure, as well as that of FHA-approved lenders and other program participants. IT Modernization is a critical step for managing risk.

FHA is actively developing a single technology platform with baseline architecture that includes a top to bottom re-alignment of Single Family's IT systems. When complete, this platform will:

- Provide lenders with a single portal to conduct business from loan application through claims processing;
- Allow for electronic submission and management of documents to reduce reliance on paper and improve processing speed; and
- Offer a full suite of lender transactions across the loan lifecycle.

In FY 2019, FHA began its IT Modernization work by developing the baseline technology to facilitate three proofs of concept:

- Developing the capabilities to accept the Loan Application Data set so that FHA can receive and process loan application information that is compliant with Mortgage Industry Standard Maintenance Organization (MISMO).
- Building the technology and processes to accept, manage, store, and use data from electronically submitted loan documents;
- Enabling fully electronic submission of Single Family forward mortgage supplemental claims.

These initial Proofs of Concept focus on key segments of the endorsement and claims processes, that address lender and servicer pain points and establish a framework for the remainder of the effort. These proofs of concept will facilitate the user-based testing and knowledge generation, which will influence development efforts moving forward.

The initial \$20 million funding allocation for this long-overdue, multi-year, IT modernization effort was appropriated in the President's FY 2019 budget. It will, however, require substantially more funding to complete it. FHA is continuing to work on an approach to secure guaranteed, longer-term funding in order to maintain project development momentum once the current \$20 million appropriation is exhausted.

Appendix A:

Data Tables for Overview

**Table A-1: Data Table for Exhibit O-35: FHA Share of Market by Origination Fiscal Year
(Percentage of Dollar Volume)**

FHA Mortgage Market Shares by Dollar Volume			
Origination Fiscal Year	FHA Share		
	Purchase	Refinance	All
2010	32.95	8.86	16.70
2011	26.02	8.57	14.67
2012	22.08	6.70	11.23
2013	17.16	7.91	10.99
2014	13.86	5.61	10.49
2015	16.14	10.26	13.49
2016	16.64	7.91	12.46
2017	15.54	9.66	13.25
2018	13.45	8.99	12.07
2019	12.30	9.26	11.34

NOTE: Ratios of dollar volume may not reconcile exactly to market shares due to rounding.

SOURCE: U.S. Department of HUD/FHA, October 2019. Originations based on beginning amortization dates.

Includes all conventional and government single family forward originations. Mortgage Bankers Association of America, "MBA Mortgage Finance Forecast," August 2019.

Table A-2: Data Table for Exhibit O-36: FHA Single Family Forward Mortgage Insurance-in-Force

Insurance-in-Force Fiscal Year	Insurance-in-Force (\$ billions)	Mortgage Count (millions)
2000	\$491	6,786
2001	\$499	6,597
2002	\$506	6,318
2003	\$438	5,345
2004	\$412	4,840
2005	\$359	4,238
2006	\$339	3,892
2007	\$343	3,738
2008	\$474	4,376
2009	\$697	5,528
2010	\$899	6,629
2011	\$1,015	7,288
2012	\$1,083	7,712
2013	\$1,097	7,810
2014	\$1,083	7,787
2015	\$1,073	7,742
2016	\$1,106	7,838
2017	\$1,159	7,982
2018	\$1,196	8,048
2019	\$1,228	8,108

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table A-2: Data Table for Exhibit O-7: FHA Originations as Share of Home Mortgage Disclosure Act (HMDA) for CY 2018

Race or Ethnicity	Number of Loans	2018 Market Segments (percent)			
		Conventional	FHA	FSA/RHS	VA
All Borrowers	3,721,611	67.3	19.8	2.8	10.1
American Indian or Alaska Native	15,139	50.2	28.9	4.0	16.9
Asian or Hawaiian/Pacific Islander	219,271	87.2	8.6	0.4	3.8
Black or African American	244,707	40.5	40.6	2.0	16.9
Hispanic or Latino	384,835	52.3	37.6	2.1	8.0
White	2,382,315	70.4	16.3	3.4	9.8
Not Disclosed	352,523	70.7	16.7	1.2	11.4
Joint	122,821	63.9	18.2	1.7	16.2

NOTE: FSA is Farm Service Agency, RHS is Rural Housing Service. Both are programs operated by the U.S. Department of Agriculture. Not Disclosed includes Missing and Not Applicable responses. Joint applies when one applicant reports a single racial designation of White and the other applicant reports one or more minority racial designations.

SOURCE: Home Mortgage Disclosure Act (HMDA), December 2018.

Appendix B:

Data Tables for Chapter I

Table B-1: Data Table for Exhibit I-1: Historical FHA Forward Mortgage Endorsement Activity

Endorsement Fiscal Year	Mortgage Amount (\$ billions)	FHA Forward Endorsed Mortgage Counts				
		Purchase	FHA Streamline Refinance	Other FHA Refinance	Conventional-to-FHA Refinance	Total
2000	94.22	839,870	34,443	6,780	32,007	913,100
2001	117.69	806,818	188,422	17,230	46,207	1,058,677
2002	148.10	862,899	318,245	28,525	64,475	1,274,144
2003	159.24	658,640	560,891	37,504	62,694	1,319,729
2004	115.98	586,110	291,483	26,147	56,695	960,435
2005	62.36	353,845	113,062	11,840	33,580	512,327
2006	55.30	313,998	36,374	14,722	60,397	425,491
2007	59.84	278,395	22,087	16,504	107,738	424,724
2008	181.17	631,656	66,773	28,510	360,455	1,087,394
2009	330.49	995,550	329,436	38,071	468,941	1,831,998
2010	297.60	1,109,582	212,896	39,602	305,530	1,667,610
2011	217.81	777,427	180,265	44,559	195,559	1,197,810
2012	213.30	733,864	274,059	47,596	129,221	1,184,740
2013	240.12	702,415	511,843	39,088	91,500	1,344,846
2014	135.22	594,998	115,038	20,962	55,354	786,352
2015	213.12	753,387	232,811	50,018	80,014	1,116,230
2016	245.41	879,512	210,629	60,444	107,463	1,258,048
2017	250.96	882,079	161,308	76,171	126,879	1,246,437
2018	209.05	776,276	51,255	77,614	109,456	1,014,601
2019	214.62	743,280	56,436	86,753	103,960	990,429

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-2: Data Table for Exhibit O 6: FHA Historical Purchase Mortgage Activity and Share of First-Time Homebuyer and Exhibit I-2: Historical Purchase Mortgage Activity and FHA First-Time Homebuyer Share

Endorsement Fiscal Year	FHA Forward Mortgages			Percent of First-Time Homebuyer	Average Age for First-Time Homebuyer
	First-Time Buyer	Repeat Buyer	Purchase Total		
2000	684,999	154,871	839,870	81.56	33.63
2001	643,640	163,178	806,818	79.78	33.49
2002	683,582	179,317	862,899	79.22	33.32
2003	521,724	136,916	658,640	79.21	33.17
2004	454,241	131,868	586,110	77.50	33.28
2005	280,082	73,763	353,845	79.15	33.24
2006	248,884	65,114	313,998	79.26	33.15
2007	221,473	56,922	278,395	79.55	33.75
2008	492,288	139,368	631,656	77.94	34.15
2009	781,681	213,869	995,550	78.52	34.23
2010	882,100	227,482	1,109,582	79.50	34.39
2011	585,006	192,421	777,427	75.25	35.15
2012	569,826	164,038	733,864	77.65	35.20
2013	553,078	149,337	702,415	78.74	35.52
2014	483,051	111,947	594,998	81.19	36.42
2015	614,313	139,074	753,387	81.54	36.77
2016	722,069	157,443	879,512	82.10	37.05
2017	725,220	156,859	882,079	82.22	37.41
2018	641,911	134,365	776,276	82.69	37.60
2019	615,711	127,569	743,280	82.84	37.72

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-3: Data Table for Exhibit I-3: Racial Composition of FHA Forward Endorsed Mortgages

Endorsement Fiscal Year	Share of FHA Forward Endorsed Mortgages					
	American Indian	Asian	Black	Hispanic	White	Not Reported
2000	0.43	1.97	14.48	19.18	57.72	6.22
2001	0.4	1.86	13.48	18.25	57.67	8.35
2002	0.4	1.78	12.86	17.63	57.15	10.18
2003	0.41	1.66	12.6	16.42	58.52	10.4
2004	0.6	2.19	13.89	16.43	58.58	8.33
2005	0.51	2.92	14.95	15.31	61.88	4.43
2006	0.52	3.11	13.76	11.97	66.03	4.61
2007	0.55	2.09	14.84	11.48	65.99	5.05
2008	0.45	2.11	13.32	10.99	65.71	7.43
2009	0.42	2.75	9.86	11.49	66.77	8.72
2010	0.39	3.41	9.01	12.02	67.14	8.04
2011	0.35	3.59	8.07	12.98	67.26	7.75
2012	0.36	3.71	8.07	13.5	66.82	7.53
2013	0.37	3.42	8.75	14.13	65.65	7.68
2014	0.41	3.27	10.87	17.09	61.34	7.02
2015	0.43	3.35	10.4	17.37	60.18	8.28
2016	0.39	3.13	10.91	17.5	58.85	9.22
2017	0.41	3.02	11.7	18.14	57.12	9.62
2018	0.36	2.6	12.62	18.17	55.51	10.74
2019	0.34	2.27	12.83	17.75	53.04	13.77

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-4: Data Table for Exhibit I-4: Historical FHA Forward Endorsement Activity

Endorsement Fiscal Year	FHA Forward Endorsed Mortgages			
	Purchase	No Cash-Out Refinance	Cash-Out	Total
2000	839,870	73,230	na	913,100
2001	806,818	251,859	na	1,058,677
2002	862,899	411,245	na	1,274,144
2003	658,640	661,089	na	1,319,729
2004	586,110	374,325	na	960,435
2005	353,845	158,482	na	512,327
2006	313,998	111,493	na	425,491
2007	278,395	146,329	na	424,724
2008	631,656	455,738	na	1,087,394
2009	995,550	620,859	215,589	1,831,998
2010	1,109,582	431,773	126,255	1,667,610
2011	777,427	341,233	79,150	1,197,810
2012	733,864	396,563	54,313	1,184,740
2013	702,415	599,379	43,052	1,344,846
2014	594,998	154,708	36,646	786,352
2015	753,387	299,063	63,780	1,116,230
2016	879,512	279,588	98,948	1,258,048
2017	882,079	222,473	141,885	1,246,437
2018	776,276	87,441	150,884	1,014,601
2019	743,280	87,302	159,847	990,429

NOTE: Cash-Out Refinance data is not available prior to FY 2009.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-5: Data Table for Exhibit I-5: FHA Endorsement Activity by Refinance Type Including Cash-Out Refinances

Endorsement Fiscal Year	Share of FHA Forward Refinance Mortgage Count				
	Conventional Cash-Out	FHA Cash-Out	Conventional No Cash-Out	FHA No Cash-Out	Streamline
2009	23.47	2.31	32.60	2.24	39.39
2010	20.17	2.46	34.58	4.64	38.15
2011	16.18	2.65	30.34	7.95	42.88
2012	9.93	2.11	18.73	8.45	60.78
2013	5.10	1.60	9.14	4.48	79.67
2014	12.90	6.25	16.02	4.71	60.12
2015	10.88	6.70	11.17	7.09	64.16
2016	16.49	9.65	11.90	6.32	55.64
2017	23.38	15.56	11.44	5.34	44.27
2018	35.05	28.26	10.87	4.31	21.51
2019	34.75	29.92	7.31	5.18	22.83

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-6: Data Table for Exhibit I-6: Average FHA Forward Loan-To-Value Ratio by Mortgage Purpose

Endorsement Fiscal Year	Purchase	Conventional Loan Refinance	FHA-to-FHA Refinance
2000	97.36	82.96	85.23
2001	96.45	82.84	85.89
2002	96.49	82.54	84.92
2003	96.47	81.71	83.83
2004	96.35	81.53	82.05
2005	96.14	81.91	80.50
2006	96.02	85.47	84.97
2007	95.99	87.54	87.30
2008	96.12	89.03	88.18
2009	95.80	88.51	88.03
2010	95.58	85.95	86.96
2011	95.70	85.94	87.97
2012	95.99	83.46	88.19
2013	95.88	84.04	86.93
2014	95.71	81.54	83.46
2015	95.69	80.28	84.35
2016	95.71	79.17	82.26
2017	95.72	78.40	81.46
2018	95.70	77.98	81.22
2019	95.58	77.41	81.62

NOTE: In accordance with statutory requirements for determining eligibility of mortgages for FHA insurance, FHA measures loan-to-value (LTV) without including any Mortgage Insurance Premium financed into the mortgage balance. Exhibit I-6 includes only fully underwritten mortgages and excludes Streamline Refinances.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-7: Data Table for Exhibit I-7: Average Borrower Credit Score for FHA-Endorsed Mortgages

Fiscal Year	Purchase	Conventional Loan Refinance	FHA-to-FHA Refinance	Average Borrower Credit Score
2005	642	612	615	639
2006	646	623	627	641
2007	635	618	627	630
2008	656	633	639	647
2009	685	673	667	681
2010	697	696	688	697
2011	700	704	701	701
2012	696	706	707	698
2013	693	694	700	693
2014	683	674	674	682
2015	680	675	675	680
2016	681	677	673	680
2017	678	674	668	676
2018	671	665	661	670
2019	667	663	660	666

NOTE: Borrower credit score data was not collected prior to 2005 and does not include Streamline Refinance mortgages.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-8: Data Table for Exhibit O-12: Share of FHA Borrower Credit Score Below 620 and Exhibit I-8: Distribution of FHA Borrower Credit Score by Fiscal Year

Endorsement Fiscal Year	Share of FHA Forward Refinance Mortgage Counts					
	720 or Higher	680-719	620-679	580-619	Less than 579	Missing
2005	11.87	11.61	32.02	20.76	16.39	7.36
2006	12.98	11.86	32.96	20.82	15.92	5.46
2007	10.25	9.89	30.98	23.12	21.00	4.75
2008	14.96	13.14	34.96	20.86	13.51	2.58
2009	27.19	19.90	37.53	11.49	2.71	1.18
2010	34.18	22.55	38.29	3.30	0.49	1.19
2011	35.70	23.62	36.80	2.62	0.27	1.00
2012	32.65	24.26	39.58	2.69	0.21	0.61
2013	27.28	26.88	43.46	1.72	0.16	0.50
2014	18.30	26.50	51.56	3.13	0.18	0.33
2015	18.04	26.14	50.23	5.06	0.24	0.28
2016	18.76	25.98	49.23	5.56	0.26	0.22
2017	17.50	24.82	49.71	7.33	0.44	0.20
2018	14.39	22.44	51.77	10.38	0.83	0.20
2019	12.89	21.04	53.18	11.69	1.04	0.16

NOTE: Borrower credit score data was not collected prior to 2005 and does not include Streamline Refinance mortgages.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-9: Data Table for Exhibit O-11: Borrower Debt-to-Income Ratio 50 Percent and Higher and Exhibit I-9: Borrower Debt-to-Income Ratio for FHA Purchase Mortgages

Endorsement Fiscal Year	Share of FHA-Endorsed Purchase Mortgages				
	<=36	>36 - <43	>=43 - <50	>= 50	Average DTI
2000	39.33	35.73	19.19	5.75	37.55
2001	39.35	34.04	20.35	6.25	37.68
2002	38.48	33.75	21.87	5.90	37.95
2003	38.15	33.33	23.54	4.99	38.02
2004	36.83	32.78	24.89	5.50	38.35
2005	37.70	32.63	23.67	6.00	38.24
2006	34.89	31.19	24.84	9.07	38.99
2007	33.58	30.92	26.02	9.48	39.25
2008	30.28	29.10	27.43	13.20	40.27
2009	29.84	25.18	26.01	18.97	41.00
2010	30.62	25.54	27.08	16.76	40.64
2011	30.40	25.18	27.73	16.69	40.66
2012	31.44	25.70	27.44	15.42	40.33
2013	32.08	26.82	27.56	13.54	40.02
2014	29.00	28.61	28.02	14.37	40.58
2015	29.89	28.81	26.72	14.58	40.43
2016	28.70	27.91	27.06	16.33	40.84
2017	25.27	25.60	28.82	20.30	41.93
2018	21.69	23.70	29.80	24.80	43.09
2019	20.19	23.26	29.82	26.73	43.67

SOURCE: US Department of HUD/FHA, October 2019.

Table B-10: Data Table for Exhibit O-13: FHA Purchase Activity by Type of Downpayment Assistance and Exhibit I-10: FHA Purchase Activity by Type of Downpayment Assistance

Endorsement Fiscal Year	Share of FHA-Endorsed Forward Mortgages			
	Government	Eligible Family Member	Non-Government/Non-Relative	No DPA
2011	7.06	22.01	0.46	70.47
2012	7.80	22.19	0.40	69.61
2013	7.08	22.47	0.40	70.04
2014	8.37	25.57	0.66	65.41
2015	9.88	25.91	1.54	62.67
2016	10.27	26.33	1.86	61.55
2017	10.56	26.10	1.70	61.64
2018	11.39	26.16	1.24	61.21
2019	12.91	25.41	1.02	60.66

NOTE: Data does not account for instances where downpayment assistance data was missing from origination data submitted to FHA.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-11: Data Table for Exhibit I-11: Months Reserve for New Purchase Endorsements

Endorsement Fiscal Year	Borrower Reserves for Purchase Endorsement Count		
	Less Than 2 Months in Reserves	Greater Than/Equal to 2 Months in Reserves	Total
2009	426,394	569,156	995,550
2010	473,259	636,323	1,109,582
2011	316,608	460,819	777,427
2012	307,999	425,865	733,864
2013	295,255	407,160	702,415
2014	260,452	334,546	594,998
2015	330,426	422,961	753,387
2016	386,306	493,206	879,512
2017	345,134	536,945	882,079
2018	370,369	405,907	776,276
2019	357,010	386,270	743,280

SOURCE: US Department of HUD/FHA, October 2019.

Table B-12: Data Table for Exhibit O-15: Share of Mortgages with Three Risk Layers and Exhibit I-12a: Share of Mortgages with Three Risk Layers

Fiscal Year	Percentage of Mortgage with 3 Risk Layers
2014	0.43
2015	0.64
2016	0.85
2017	1.28
2018	2.42
2019	2.86

SOURCE: US Department of HUD/FHA, October 2019.

Table B-13: Data Table for Exhibit O-16: Early Payment Default Rate for Mortgages With and Without Three Risk Layers and Exhibit I-12b: Early Payment Default Rate for Mortgages with and without Three Risk Layers

	Percentage of Mortgages	
	2014 - 2016	2017 - 2019
Without 3 Layers	0.31	0.64
3 Layers	1.12	1.87

SOURCE: US Department of HUD/FHA, October 2019.

Table B-14: Data Table for Exhibit O-14: Share of FHA-Insured Mortgages Endorsed by Depository Institutions and Exhibit I-13: Lender Type for FHA Endorsement Activity

Endorsement Fiscal Year	Share of FHA Forward Endorsed Mortgages		
	Other	Non-Depository	Depository
2000	1.45	70.66	27.90
2001	1.38	69.70	28.92
2002	1.08	70.19	28.73
2003	1.01	73.63	25.36
2004	0.85	68.75	30.41
2005	1.13	66.28	32.59
2006	1.04	65.62	33.34
2007	0.43	68.71	30.86
2008	0.15	60.23	39.62
2009	0.15	59.73	40.12
2010	0.15	56.80	43.05
2011	0.09	59.09	40.82
2012	0.05	64.68	35.27
2013	0.07	64.53	35.40
2014	0.09	71.87	28.03
2015	0.07	79.20	20.73
2016	0.08	82.65	17.27
2017	0.08	84.88	15.04
2018	0.10	85.39	14.51
2019	0.09	86.27	13.64

NOTE: This table does not include Streamline refinance mortgages.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-15: Data Table for Exhibit I-14: FY 2019 FHA Forward Endorsement Concentration by State

State	Share of FHA-Endorsed Forward Mortgages Endorsement Fiscal Year	
	2018	2019
Alabama	1.60	1.63
Alaska	0.15	0.14
Arizona	3.24	3.28
Arkansas	0.87	0.87
California	9.13	8.90
Colorado	2.58	2.69
Connecticut	1.04	1.05
Delaware	0.42	0.43
District of Columbia	0.07	0.06
Florida	8.68	9.11
Georgia	4.64	4.60
Guam	0.00	0.00
Hawaii	0.10	0.10
Idaho	0.73	0.72
Illinois	3.61	3.47
Indiana	2.83	2.70
Iowa	0.60	0.59
Kansas	0.79	0.75
Kentucky	1.36	1.37
Louisiana	1.33	1.38
Maine	0.33	0.34
Maryland	2.54	2.55
Massachusetts	1.44	1.47
Michigan	3.04	2.97
Minnesota	1.56	1.51
Mississippi	0.81	0.87
Missouri	2.15	2.10
Montana	0.26	0.25
Nebraska	0.49	0.47
Nevada	1.39	1.43
New Hampshire	0.43	0.42
New Jersey	2.80	2.81
New Mexico	0.74	0.70
New York	2.85	2.72
North Carolina	2.62	2.68
North Dakota	0.19	0.18
Ohio	3.84	3.82
Oklahoma	1.26	1.23
Oregon	1.23	1.17
Pennsylvania	3.68	3.53
Puerto Rico	0.46	0.59

Rhode Island	0.48	0.47
South Carolina	1.82	1.89
South Dakota	0.21	0.23
Tennessee	2.68	2.77
Texas	8.61	8.87
Utah	1.53	1.52
Vermont	0.09	0.10
Virgin Islands	0.00	0.01
Virginia	2.69	2.58
Washington	2.27	2.24
West Virginia	0.37	0.39
Wisconsin	1.09	1.06
Wyoming	0.23	0.24

SOURCE: US Department of HUD/FHA, October 2019.

Table B-16: Data Table for Exhibit I-16: FHA Early Payment Default Rates by Mortgage Purpose

Endorsement Fiscal Year	FHA-Endorsed Forward Mortgages		
	Purchase	Refinance	All
2000	0.16	0.13	0.16
2001	0.86	0.71	0.82
2002	1.09	0.74	0.97
2003	0.99	0.62	0.80
2004	1.25	0.97	1.14
2005	1.55	1.36	1.49
2006	1.54	1.17	1.44
2007	2.41	1.70	2.16
2008	1.97	2.25	2.09
2009	0.80	1.57	1.15
2010	0.37	0.63	0.46
2011	0.39	0.36	0.38
2012	0.36	0.30	0.34
2013	0.31	0.21	0.26
2014	0.41	0.33	0.39
2015	0.41	0.29	0.37
2016	0.40	0.29	0.37
2017	0.87	0.51	0.77
2018	0.73	0.38	0.65
2019	0.77	0.43	0.69

NOTE: FY 2019 data is through April 2019.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-17: Data Table for Exhibit I-17: Historical Serious Delinquency Rates for FHA Mortgages

End of Month	Rate
Sep-08	6.17
Oct-08	6.40
Nov-08	6.82
Dec-08	7.11
Jan-09	7.52
Feb-09	7.46
Mar-09	7.36
Apr-09	7.48
May-09	7.69
Jun-09	7.85
Jul-09	8.82
Aug-09	8.37
Sep-09	8.52
Oct-09	8.97
Nov-09	9.25
Dec-09	9.43
Jan-10	9.70
Feb-10	9.45
Mar-10	9.04
Apr-10	8.77
May-10	8.71
Jun-10	8.61
Jul-10	8.61
Aug-10	8.48
Sep-10	8.66
Oct-10	8.21
Nov-10	8.73
Dec-10	8.78
Jan-11	8.90
Feb-11	8.94
Mar-11	8.31
Apr-11	8.19
May-11	8.18
Jun-11	8.18
Jul-11	8.31
Aug-11	8.43
Sep-11	8.69
Oct-11	9.01
Nov-11	9.35
Dec-11	9.59
Jan-12	9.83
Feb-12	9.66
Mar-12	9.42
Apr-12	9.37

May-12	9.39
Jun-12	9.44
Jul-12	9.47
Aug-12	9.47
Sep-12	9.58
Oct-12	9.49
Nov-12	9.49
Dec-12	9.59
Jan-13	9.49
Feb-13	9.28
Mar-13	8.87
Apr-13	8.58
May-13	8.27
Jun-13	8.38
Jul-13	8.17
Aug-13	7.98
Sep-13	8.04
Oct-13	8.04
Nov-13	8.02
Dec-13	8.02
Jan-14	7.83
Feb-14	7.71
Mar-14	7.44
Apr-14	7.25
May-14	7.19
Jun-14	7.14
Jul-14	6.98
Aug-14	6.94
Sep-14	6.99
Oct-14	6.94
Nov-14	7.02
Dec-14	7.00
Jan-15	6.96
Feb-15	6.76
Mar-15	6.42
Apr-15	6.28
May-15	6.24
Jun-15	6.12
Jul-15	5.75
Aug-15	5.91
Sep-15	5.86
Oct-15	5.79
Nov-15	5.82
Dec-15	5.79
Jan-16	5.80
Feb-16	5.55

Mar-16	5.31
Apr-16	5.16
May-16	5.07
Jun-16	5.02
Jul-16	4.96
Aug-16	4.95
Sep-16	4.92
Oct-16	4.91
Nov-16	4.94
Dec-16	4.99
Jan-17	4.97
Feb-17	4.81
Mar-17	4.54
Apr-17	4.47
May-17	4.36
Jun-17	4.28
Jul-17	4.20
Aug-17	4.24
Sep-17	4.32
Oct-17	4.42
Nov-17	4.83
Dec-17	5.19

Jan-18	5.18
Feb-18	5.06
Mar-18	4.66
Apr-18	4.54
May-18	4.35
Jun-18	4.28
Jul-18	4.08
Aug-18	4.11
Sep-18	4.11
Oct-18	4.06
Nov-18	4.06
Dec-18	4.08
Jan-19	4.16
Feb-19	4.10
Mar-19	3.88
Apr-19	3.74
May-19	3.67
Jun-19	3.76
Jul-19	3.78
Aug-19	3.82
Sep-19	3.88

SOURCE: US Department of HUD/FHA, October 2019.

Table B-18: Data Table for Exhibit I-18: Early Payment Default Rate of FHA Purchase Mortgages by Downpayment Assistance

Early Payment Default Rate of FHA-Endorsed Purchase Mortgages		
Beginning Amortization Quarter	EPD Rates	
	With Downpayment Assistance	Without Downpayment Assistance
2010Q1	0.62	0.30
2010Q2	0.55	0.26
2010Q3	0.70	0.33
2010Q4	0.47	0.26
2011Q1	0.63	0.25
2011Q2	0.75	0.34
2011Q3	0.70	0.28
2011Q4	0.50	0.23
2012Q1	0.62	0.26
2012Q2	0.66	0.28
2012Q3	0.61	0.28
2012Q4	0.40	0.19
2013Q1	0.43	0.22
2013Q2	0.49	0.24
2013Q3	0.55	0.29
2013Q4	0.46	0.25
2014Q1	0.54	0.28
2014Q2	0.68	0.36
2014Q3	0.64	0.35
2014Q4	0.49	0.27
2015Q1	0.58	0.31
2015Q2	0.65	0.31
2015Q3	0.60	0.32
2015Q4	0.43	0.24
2016Q1	0.52	0.26
2016Q2	0.61	0.37
2016Q3	0.59	0.36
2016Q4	0.41	0.25
2017Q1	0.53	0.33
2017Q2	1.50	0.94
2017Q3	1.69	1.28
2017Q4	0.63	0.37
2018Q1	0.74	0.45
2018Q2	1.11	0.69
2018Q3	1.30	0.74
2018Q4	1.01	0.64
2019Q1	1.03	0.57

SOURCE: US Department of HUD/FHA, October 2019.

Table B-19: Data Table for Exhibit I-19: Serious Delinquency Rate of FHA Purchase Mortgages by Downpayment Assistance Type as of September 30, 2019

Endorsement Fiscal Year	Seriously Delinquent Rate of FHA-Endorsed Purchase Mortgages			
	Source of Downpayment Assistance			No Downpayment Assistance
	Government	Non-Government/ Non-Relative	Eligible Family Member	
2011	12.79	9.78	7.72	5.30
2012	10.28	8.62	6.55	4.63
2013	8.37	6.66	5.78	4.40
2014	7.79	5.89	6.00	4.61
2015	6.84	5.12	6.10	4.48
2016	5.47	4.83	5.50	3.91
2017	4.85	4.83	4.98	3.49
2018	4.27	4.28	4.08	2.72
2019	0.94	1.01	0.97	0.59

SOURCE: US Department of HUD/FHA, October 2019.

Table B-20: Data Table for Exhibit I-20: FHA Loss Severity and Claim Count by Disposition Strategy

Claim Fiscal Year	Insurance-in-Force	FHA Claim Disposition Type				Loss Severity Rate
		REO	Note Sales/Distressed Asset Sales Program	Third Party Sales	Pre-Foreclosure Sales	
2007	3,892,440	48,362	na	1,802	4,026	42.21
2008	3,737,757	45,761	na	1,123	4,071	49.41
2009	4,375,866	67,488	na	2,437	6,473	63.02
2010	5,527,609	87,297	125	1,568	15,287	60.85
2011	6,883,859	82,308	1,606	1,861	25,064	63.72
2012	7,288,440	102,946	1,154	4,718	36,728	61.80
2013	7,711,684	111,282	35,021	10,739	34,548	57.59
2014	7,810,422	73,649	40,746	26,830	24,696	52.34
2015	7,787,092	60,090	19,977	22,051	13,968	51.56
2016	7,742,143	57,193	12,249	33,175	12,668	53.96
2017	7,838,495	43,368	5,551	44,873	8,703	50.08
2018	8,048,639	25,735	68	48,395	6,000	44.83
2019	8,107,806	14,986	69	38,105	4,198	40.73

NOTE: De minimis note sales may be reflected in the table above in which final resolution may result in an alternative disposition type. Includes funds outside of MMI Fund and includes outbids. Due to time lag in reporting of dispositions, data as of August 31, 2019 and are therefore missing one month of comparable data to prior fiscal years.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-21: Data Table for Exhibit I-21: Annual FHA Claims as a Share of Initial Insurance-in-Force

Claim Fiscal Year	FHA Forward Mortgage Count		Share of Mortgage Count	Insurance-in-Force Unpaid Principal Balance (\$ billions)		Share of IIF
	Mortgage Claims	Active Mortgages (Beginning-of-FY)		Mortgage Claims	Active Mortgages (End-of-FY)	
2007	54,190	3,892,440	1.39	4.94	342.6	1.44
2008	50,955	3,737,757	1.36	5.15	474.4	1.08
2009	76,398	4,375,866	1.75	8.18	697.3	1.17
2010	104,277	5,527,609	1.89	12.91	947.8	1.36
2011	110,839	6,883,859	1.61	15.40	1,015.20	1.52
2012	145,546	7,288,440	2.00	20.79	1,083.30	1.92
2013	191,590	7,711,684	2.48	28.15	1,097.40	2.56
2014	165,921	7,810,422	2.12	24.60	1,083.50	2.27
2015	116,086	7,787,092	1.49	15.77	1,072.80	1.47
2016	115,285	7,742,143	1.49	15.19	1,106.30	1.37
2017	102,495	7,838,495	1.31	13.28	1,158.80	1.15
2018	80,198	7,982,070	1.00	10.29	1,187.39	0.87
2019	57,358	8,048,639	0.71	7.55	1,228.03	0.61

NOTE: Includes mortgages outside of MMI Fund and includes outbids. Due to time lag in reporting of dispositions, data as of August 2019 and are therefore missing one month of comparable data to prior fiscal years.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-22: Data Table for Exhibit I-22: Recent FHA Loss Mitigation Activity

Assisted Cure Fiscal Year	Type of FHA Loss Mitigation Assistance		
	Deeper Assistance	Limited Assistance	Total Assisted Cures
2010	165,223	126,457	291,680
2011	161,423	217,801	379,224
2012	97,572	256,058	353,630
2013	160,784	299,810	460,594
2014	179,552	294,397	473,949
2015	148,518	289,508	438,026
2016	117,389	291,346	408,735
2017	116,043	243,492	359,535
2018	117,364	334,687	452,051
2019	99,460	364,968	464,428

NOTE: Deeper Loss Mitigation Assistance includes FHA-HAMP, Partial Claims, and Loan Modifications. Limited Loss Mitigation Assistance includes Promise to Pay and Repayment Plans. Starting in May 2013, Promise to Pay is no longer classified as a Repayment Plan and is considered its own category.

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-23: Data Table for Exhibit I-23: FHA HECM Endorsement Activity

Endorsement Fiscal Year	Home Equity Conversion Mortgages (HECM)						
	Mortgage Purpose Type		Mortgage Product Type			All Mortgages	Maximum Claim Amount (\$ billions)
	Fixed Rate	Adjustable Rate	Purchase	Refinance	Traditional		
2009	13,312	101,112	559	8,972	104,893	114,424	30.07
2010	54,483	24,576	1,389	4,836	72,834	79,059	21.07
2011	49,742	23,370	1,538	2,737	68,837	73,112	18.21
2012	38,051	16,762	1,627	1,445	51,741	54,813	13.16
2013	36,326	23,598	2,091	1,834	55,999	59,924	14.68
2014	9,635	41,980	1,825	2,406	47,384	51,615	13.52
2015	9,131	48,859	2,411	5,571	50,008	57,990	16.13
2016	5,198	43,670	2,367	5,398	41,103	48,868	14.66
2017	5,710	49,581	2,634	8,016	44,641	55,291	17.69
2018	4,898	43,431	2,615	5,860	39,854	48,329	16.19
2019	1,890	29,370	2,293	1,679	27,288	31,260	10.86

SOURCE: US Department of HUD/FHA, October 2019.

Table B-24: Data Table for Exhibit I-24: Current HECM Portfolio by Year of Endorsement

Endorsement Fiscal Year	Active HECM	Maximum Claim Amount (\$ billions)	Current Principal Limit (\$ billions)	Insurance-in-Force (\$ billions)
2009	44,455	11.46	11.79	10.21
2010	18,854	5.03	5.18	4.44
2011	18,643	4.82	4.77	4.01
2012	18,595	4.56	4.60	3.96
2013	32,729	7.97	7.74	6.87
2014	31,891	8.12	6.54	5.50
2015	39,245	10.60	8.01	6.67
2016	37,355	11.05	8.26	6.48
2017	48,068	15.27	10.99	8.33
2018	45,007	15.02	9.44	6.80
2019	30,687	10.66	5.78	3.88

SOURCE: US Department of HUD/FHA, October 2019.

Table B-25: Data Table for Exhibit I-25: FHA HECM Claims by Claim Type

Claim Fiscal Year	Claim Amount Paid in Fiscal Year (\$)			
	Claim Type 1	Claim Type 2	Supplemental	Total
2009	5,818	280,946	0	286,764
2010	2,429,944	511,603	6,088	2,947,636
2011	10,978,684	17,521,667	47,061	28,547,412
2012	81,388,383	123,067,358	5,479	204,461,219
2013	207,874,582	504,097,996	1,265,207	713,237,784
2014	224,538,487	676,797,426	644,761	901,980,675
2015	755,477,982	1,734,780,373	8,884,319	2,499,142,673
2016	636,636,110	3,529,360,512	47,313,221	4,213,309,843
2017	676,564,968	4,325,602,086	27,628,098	5,029,795,151
2018	612,273,102	5,502,089,113	34,182,468	6,148,544,683
2019	591,073,714	8,930,409,213	35,470,645	9,556,953,572

NOTE: The Claim Type 1 category represents the dollar volume of claims generated when the borrower no longer occupies the home, and the property is sold at a loss, with the mortgage never being assigned to the Secretary of HUD. The Claim Type 2 category represents the dollar volume of claims resulting from the assignment of the mortgage to the Secretary of HUD when the mortgage reaches 98 percent of the MCA. Supplemental claims are those claims submitted by lenders for other eligible expenses not included on original claims, such as property preservation expenses.

SOURCE: US Department of HUD/FHA, October 2019.

Table B-26: Data Table for Exhibit I-26: Average Maximum Claim Amount (MCA) for FHA-Endorsed HECMs

Endorsement Fiscal Year	HECMs Endorsed (count)	Average MCA (\$)	Total MCA Endorsed (\$)
2009	114,424	262,833	30,074,357,789
2010	79,059	266,561	21,074,055,164
2011	73,112	249,132	18,214,513,353
2012	54,813	240,141	13,162,833,860
2013	59,924	245,001	14,681,463,392
2014	51,615	261,941	13,520,100,085
2015	57,990	278,145	16,129,647,170
2016	48,868	300,000	14,660,406,133
2017	55,291	319,964	17,691,115,529
2018	48,329	334,986	16,189,549,432
2019	31,260	347,275	10,855,810,090

SOURCE: US Department of HUD/FHA, October 2019.

Table B-27: Data Table for Exhibit O-8: Composition of FHA HECM Borrowers and Exhibit I-27: Composition of FHA HECM Borrowers

Endorsement Fiscal Year	Total Endorsements			
	Sole Male Borrower	Sole Female Borrower	Multiple Borrowers	Not Disclosed
2009	24,360	45,878	43,732	454
2010	16,950	33,097	28,220	792
2011	15,231	29,413	27,578	890
2012	11,611	21,446	20,936	820
2013	12,562	22,385	24,047	930
2014	10,533	19,865	20,464	753
2015	12,631	22,311	22,748	300
2016	10,552	17,972	20,213	131
2017	11,527	20,502	22,909	353
2018	9,929	17,684	19,944	772
2019	6,566	11,891	12,410	393

SOURCE: US Department of HUD/FHA, October 2019.

Table B-28: Data Table for Exhibit I-28: Average Borrower Age at Endorsement of FHA HECMs

Endorsement Fiscal Year	HECMs Endorsed (count)	Average Borrower Age
2009	114,424	72.54
2010	79,059	72.48
2011	73,112	71.81
2012	54,813	71.57
2013	59,924	71.28
2014	51,615	71.48
2015	57,990	71.86
2016	48,868	72.51
2017	55,291	72.67
2018	48,329	72.85
2019	31,260	73.09

SOURCE: US Department of HUD/FHA, October 2019.

Table B-29: Data Table for Exhibit I-29: FHA HECM Endorsement Activity by Mortgage Purpose

Endorsement Fiscal Year	Share of Total Maximum Claim Amount (MCA)		
	Purchase	Refinance	Traditional
2009	0.47	11.90	87.64
2010	1.73	9.41	88.86
2011	2.21	6.16	91.64
2012	3.26	4.57	92.17
2013	3.95	5.03	91.03
2014	3.91	7.24	88.84
2015	4.33	13.48	82.19
2016	4.98	14.19	80.83
2017	4.93	17.11	77.97
2018	5.52	14.39	80.09
2019	7.40	7.44	85.16

SOURCE: US Department of HUD/FHA, October 2019.

Table B-30: Data Table for Exhibit I-30: FHA HECM Endorsement Activity by Mortgage Type Option

Endorsement Fiscal Year	Share of Total Maximum Claim Amount (MCA)		
	Annual Adjustable Rate Mortgage	Monthly Adjustable Rate Mortgage	Fixed Rate Mortgage
2009	1.01	86.19	12.80
2010	0.08	35.02	64.90
2011	0.13	36.83	63.04
2012	0.05	34.81	65.15
2013	0.11	41.56	58.33
2014	2.64	78.11	19.26
2015	42.10	41.61	16.29
2016	75.89	13.27	10.84
2017	83.00	6.29	10.72
2018	87.72	1.29	10.99
2019	93.07	0.29	6.65

SOURCE: US Department of HUD/FHA, October 2019.

Table B-31: Data Table for Exhibits I-31 and I-32: Average Principal Limit and Average Initial Cash Draws of FHA HECMs

Endorsement Fiscal Year	HECMs Endorsed (count)	Average Principal Limit as a Share of Maximum Claim Amount	Average 1st Month Cash Draw as a Share of Principal Limit
2009	114,424	70.22	69.76
2010	79,059	65.82	78.43
2011	73,112	65.09	78.82
2012	54,813	66.46	80.00
2013	59,924	66.26	83.03
2014	51,615	58.74	66.89
2015	57,990	58.91	64.08
2016	48,868	59.76	62.40
2017	55,291	59.70	63.81
2018	48,329	54.95	63.27
2019	31,260	51.48	62.78

SOURCE: US Department of HUD/FHA, October 2019.

Table B-32: Data Table for Exhibit I-33: States with the Highest Share of FHA HECMs by MCA

Endorsement Fiscal Year	Share of Total Maximum Claim Amount (MCA) by Endorsement Fiscal Year					
	California	Florida	Colorado	New York	Texas	Other States
2009	20.89	11.41	1.94	7.54	4.23	53.99
2010	23.11	7.31	1.95	8.61	5.05	53.97
2011	22.52	5.51	2.18	8.72	5.94	55.13
2012	21.09	5.27	2.16	10.56	6.00	54.91
2013	23.73	5.69	2.32	9.15	5.89	53.23
2014	28.83	6.03	2.48	8.07	5.04	49.55
2015	31.92	7.24	2.59	7.82	4.85	45.58
2016	32.87	7.54	4.09	6.41	5.50	43.60
2017	34.86	7.25	5.94	5.54	5.45	40.96
2018	33.17	6.79	6.67	4.98	5.30	43.09
2019	31.27	6.92	6.90	5.42	5.18	44.31

SOURCE: U.S. Department of HUD/FHA, October 2019.

Table B-33: Data Table for Exhibit I-37: FHA HECMs by Payment Plan Option

Endorsement Fiscal Year	Share of Maximum Claim Amount (MCA)					
	HECM Payment Options					
	Term	Line of Credit	Tenure	Term & Line of Credit	Tenure & Line of Credit	Lump Sum
2009	0.86	90.41	1.76	4.37	2.60	0.00
2010	0.55	92.50	1.08	3.62	2.25	0.00
2011	0.47	92.84	1.13	3.49	2.07	0.00
2012	0.33	93.44	1.03	3.26	1.94	0.00
2013	0.48	93.60	1.12	3.05	1.76	0.00
2014	0.76	91.80	1.76	3.54	2.13	0.02
2015	0.64	91.89	1.37	3.37	2.20	0.53
2016	0.70	87.92	1.32	3.28	2.07	4.69
2017	0.68	85.59	1.19	3.10	2.09	7.35
2018	0.74	85.82	0.98	2.87	1.97	7.61
2019	0.84	88.60	1.09	2.36	1.60	5.51

SOURCE: U.S. Department of HUD/FHA, October 2019.

Appendix C:

Data Tables for Chapter II

Table C-1: Data Table for Exhibit O-38: MMI Capital Ratio FY 2014 - 2019 and Exhibit II-2: MMIF Capital Ratio

Fiscal Year	MMI Fund Capital Ratio
2014	0.42
2015	2.10
2016	2.35
2017	2.18
2018	2.76
2019	4.84

SOURCE: US Department of HUD/FHA, October 2019.

Table C-2: Data Table for Exhibit O-39: Comparison of Stand-Alone Capital Ratios for the Forward and HECM Portfolios and Exhibit II-6: Forward and HECM Stand-Alone Capital Ratios

Fiscal Year	Forward Stand-Alone Capital Ratio	HECM Stand-Alone Capital Ratio
2014	0.88	-10.13
2015	2.00	1.16
2016	3.11	-11.81
2017	3.33	-18.30
2018	3.93	-18.83
2019	5.44	-9.22

SOURCE: US Department of HUD/FHA, October 2019.

Table C-3: Data Table for Exhibit O-9: Projected Lifetime Claim Rates for FY 2019 Originations at the Highest Levels Since 2009 and Exhibit II-11: Projected Lifetime Claim Rates for FY2019 Originations at the Highest Levels Since 2009

Cohort Year	Projected Lifetime Claim Rate
2009	12.8
2010	7.2
2011	4.2
2012	2.9
2013	2.8
2014	3.1
2015	3.4
2016	4.5
2017	6.1
2018	7.9
2019	9.5

SOURCE: US Department of HUD/FHA, October 2019.

Table C-4: Data Table for Exhibit II-17: Sensitivity of MMI Capital Ratio to Changes in HPA FY 2005 – 2012

Fiscal Year	HPA from 2003	MMI Capital Ratio
2005	19.56	6.50
2006	30.45	7.40
2007	32.99	7.00
2008	25.52	3.20
2009	14.75	0.40
2010	11.29	0.50
2011	5.35	0.24
2012	5.56	-1.40

SOURCE: US Department of HUD/FHA, October 2019.

Table C-5: Data Table for Exhibit II-20: Historic Credit Losses – FHA Forward Insurance is a 5 Percent Loss Business

Fiscal Year	Stress Level Loss rate (2005-2008)	Expected Default Loss (1980-2012)	Claim Rate
1980	14.2	5.0	8.30
1981	14.2	5.0	10.93
1982	14.2	5.0	10.12
1983	14.2	5.0	7.73
1984	14.2	5.0	9.76
1985	14.2	5.0	7.78
1986	14.2	5.0	5.78
1987	14.2	5.0	4.41
1988	14.2	5.0	4.88
1989	14.2	5.0	4.61
1990	14.2	5.0	4.03
1991	14.2	5.0	3.34
1992	14.2	5.0	2.79
1993	14.2	5.0	2.50
1994	14.2	5.0	2.74
1995	14.2	5.0	4.09
1996	14.2	5.0	3.85
1997	14.2	5.0	3.66
1998	14.2	5.0	3.08
1999	14.2	5.0	3.42
2000	14.2	5.0	4.11
2001	14.2	5.0	3.79
2002	14.2	5.0	3.91
2003	14.2	5.0	4.72
2004	14.2	5.0	6.54
2005	14.2	5.0	11.96
2006	14.2	5.0	14.73
2007	14.2	5.0	16.56
2008	14.2	5.0	13.51
2009	14.2	5.0	6.39
2010	14.2	5.0	3.79
2011	14.2	5.0	2.28
2012	14.2	5.0	1.63
Average Claim Rate (after controlling for high stress years)			5.00%

SOURCE: US Department of HUD/FHA, October 2019.

Table C-6: Data Table for MMI Fund

MMI Description	2017	2018	2019
Ending Balances (\$ Millions)			
Total Capital Resources	\$40,857	\$49,237	\$57,980
Plus: NPV Revenue	\$59,115	\$51,248	\$51,436
Less: NPV Losses	(\$73,227)	(\$65,623)	(\$47,034)
Equals: Cash Flow NPV	(\$14,112)	(\$14,375)	\$4,402
Equals: Economic Net Worth	\$26,745	\$34,862	\$62,382
Insurance-In-Force	\$1,226,843	\$1,264,672	\$1,288,436
Balances as a Percent of Ending Insurance-In-Force			
Total Capital Resources	3.33%	3.89%	4.50%
Plus: NPV Revenue	4.82%	4.05%	3.99%
Less: NPV Losses	-5.97%	-5.19%	-3.65%
Equals: Cash Flow NPV	-1.15%	-1.14%	0.34%
Equals: Economic Net Worth - Capital Ratio	2.18%	2.76%	4.84%
Insurance-In-Force	100.00%	100.00%	100.00%

SOURCE: US Department of HUD/FHA, October 2019.

Table C-7: Data Table for Forward Portfolio

Forward Description	2017	2018	2019
Ending Balances (\$ millions)			
Total Capital Resources	\$37,056	\$45,438	\$54,600
Plus: NPV Revenue	\$54,001	\$45,307	\$45,783
Less: NPV Losses	(\$52,643)	(\$43,935)	(\$33,769)
Equals: Cash Flow NPV	\$1,357	\$1,372	\$12,014
Equals: Economic Net Worth	\$38,413	\$46,810	\$66,614
Insurance-In-Force	\$1,153,875	\$1,192,283	\$1,224,225
Balances as a Percent of Ending Insurance-In-Force			
Total Capital Resources	3.21%	3.81%	4.46%
Plus: NPV Revenue	4.68%	3.80%	3.74%
Less: NPV Losses	-4.56%	-3.68%	-2.76%
Equals: Cash Flow NPV	0.12%	0.12%	0.98%
Equals: Economic Net Worth - Capital Ratio	3.33%	3.93%	5.44%
Insurance-In-Force	100.00%	100.00%	100.00%

SOURCE: US Department of HUD/FHA, October 2019.

Table C-8: Data Table for HECM Portfolio

HECM Description	2017	2018	2019
Ending Balances (\$ millions)			
Total Capital Resources	\$2,115	\$2,113	\$1,695
Plus: NPV Revenue	\$5,115	\$5,941	\$5,653
Less: NPV Losses	(\$20,584)	(\$21,688)	(\$13,265)
Equals: Cash Flow NPV	(\$15,469)	(\$15,747)	(\$7,612)
Equals: Economic Net Worth	(\$13,356)	(\$13,632)	(\$5,917)
Insurance-In-Force	\$72,968	\$72,389	\$64,211
Balances as a Percent of Ending Insurance-In-Force			
Total Capital Resources	2.90%	2.92%	2.64%
Plus: NPV Revenue	7.01%	8.21%	8.80%
Less: NPV Losses	-28.21%	-29.96%	-20.66%
Equals: Cash Flow NPV	-21.20%	-21.75%	-11.85%
Equals: Economic Net Worth - Capital Ratio	-18.30%	-18.83%	-9.22%
Insurance-In-Force	100.00%	100.00%	100.00%

SOURCE: US Department of HUD/FHA, October 2019.

Appendix D:

FHA Single Family Housing Mortgagee Letters Published FY 2019

The Federal Housing Administration's (FHA) Office of Single Family Housing issues policy guidance by publishing Mortgagee Letters and/or publishing updates to its *Single Family Housing Policy Handbook* 4000.1 (SF Handbook).

In FY 2019, FHA published the Mortgagee Letters listed in the table below.

ML#	Publication Date	Title
2019-17	9/27/2019	Home Equity Conversion Mortgage (HECM) Program – Condominium Requirements
2019-16	9/23/2019	Home Equity Conversion Mortgage (HECM) Program – Continuation of HECM Collateral Risk Assessment Requirements
2019-15	9/23/2019	Updates to Mortgagee Optional Election (MOE) Assignment for Home Equity Conversion Mortgages (HECMs) with FHA Case Numbers Assigned Prior to August 4, 2014
2019-14	8/29/2019	Updates to FHA's Loss Mitigation Options for Borrower's in Presidentially-Declared Major Disaster Areas (PDMDAs)
2019-13	8/21/2019	Single-Unit Approval Process - Obtaining FHA Case Numbers for Single-Unit Approval Originations
2019-12	8/13/2019	Rescission of Mortgagee Letters 2019-06, Downpayment Assistance and Operating in a Governmental Capacity; 2019-07, Extension of the Effective Date of Mortgagee Letter 2019-06, Downpayment Assistance and Operating in a Governmental Capacity; and 2019-10, Suspension of the Effective Date of Mortgagee Letter 2019-06, Downpayment Assistance and Operating in a Governmental Capacity.
2019-11	8/1/2019	Maximum Loan-To-Value and Combined Loan-To-Value Percentages for Cash-out Refinance Mortgages
2019-10	7/23/2019	Suspension of the Effective Date of Mortgagee Letter 2019-06, Downpayment Assistance and Operating in a Government Capacity
2019-08	5/16/2019	Construction to Permanent and Building on Own Land Programs
2019-07	4/25/2019	Extension of the Effective Date of Mortgagee Letter 2019-06, Downpayment Assistance and Operating in a Governmental Capacity
2019-06	4/18/2019	Downpayment Assistance and Operating in a Governmental Capacity

2019-01	2/15/2019	Third Party Verification Services (Superseded in part by HUD Handbook 4000.1)
2018-12	12/14/2018	2019 Nationwide Home Equity Conversion Mortgage (HECM) Limits
2018-11	12/14/2018	2019 Nationwide Forward Mortgage Limits
2018-08	10/22/2018	Updated Guidance on Home Equity Conversion Mortgage (HECM) Claim Type 22 (CT-22) Assignment Requests



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