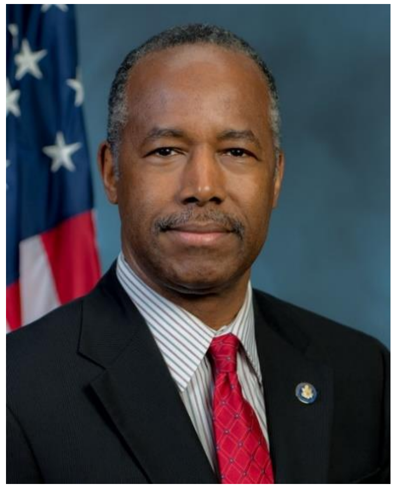
U.S. Department of Housing and Urban Development

Annual Report to Congress Regarding the Financial Status of the FHA Mutual Mortgage Insurance Fund

Fiscal Year 2018



Secretary's Foreword

I am pleased to present the Annual Report to Congress on the financial health of the Federal Housing Administration's (FHA) Mutual Mortgage Insurance Fund (MMIF) for Fiscal Year (FY) 2018.

FHA's role remains important and substantial in supporting the nation's single-family homebuyers. In FY 2018, FHA insured more than one million mortgages for single-family homes, and nearly 83 percent of FHA purchase mortgages served first-time homebuyers. In addition, the agency insured over 48,000 reverse mortgages through the Home Equity Conversion Mortgage (HECM) program, helping seniors remain in their homes and age in place. As of September 30, 2018, the MMIF had $1.26 trillion of insurance-in-force for over 8 million of the nation's home mortgages.

The general economic condition of the MMIF is sound, aided by favorable economic conditions and prudent stewardship of the program. FHA's MMIF Capital Ratio for FY 2018 is 2.76 percent, remaining above the 2.00 percent statutory minimum, and increasing from last year's revised level of 2.18 percent. The Economic Net Worth of the MMIF is $34.86 billion, an increase of over $8.12 billion from FY 2017. While we have made progress over the past fiscal year, the stand-alone forward and reverse portfolio capital ratios and economic net worth highlight the work that must continue in order to stabilize the financial performance of the HECM program.

This year's Annual Report continues our commitment to provide exceptional transparency, consistency, and accountability. In the chapters within, we offer a detailed narrative of FHA's vigorous response to assist homeowners whose lives were devastated by natural disasters, including through new loss mitigation options that allow eligible borrowers to remain in their homes while reducing losses for FHA. The report also contains more robust insights into the factors driving the financial performance of the MMIF, including detailed discussions of the main risks we see emerging in our Single Family book of business.

FHA now has a new Commissioner who is leading our continued effort to preserve affordable and sustainable access to mortgage credit, to manage the risks of a large and complex mortgage insurance portfolio, and to modernize an antiquated FHA. Federal Housing Commissioner Brian Montgomery and his team are working to make certain we remain true to FHA's core mission to serve qualified first-time, low- and moderate-income and minority homebuyers, and seniors who choose to age in place.

As we present this Annual Report to Congress, we are firm in our duty to make certain the FHA remains a trusted beacon for future generations hoping to share in the opportunities that come with owning a home, while fulfilling our statutory duty to fiscal responsibility.

Ben Carson
Secretary
U.S. Department of Housing and Urban Development

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

Fiscal Year 2018 once again highlighted the scope and complexity of the Federal Housing Administration's (FHA) Single Family mortgage insurance portfolio. During the past year, over one million individuals and families benefitted from the value of an FHA insurance endorsement to purchase or refinance their homes, including over 640,000 first-time homebuyers and over 48,000 seniors. It is FHA's eight decades of providing enduring value to the nation's homebuyers that continues to impress me – in my first term as FHA Commissioner nine years ago, and during the five months into my second appointment to the role.

Providing enduring value comes with great responsibility. As Secretary Carson mentioned in his Foreword to this report, as of September 30, 2018, FHA's Single Family insurance portfolio was $1.26 trillion of Insurance-in-Force, and had an economic net worth of $34.86 billion. The dollar amounts involved, alone, require precise management and constant focus. And when you factor in our Multifamily and Healthcare insurance portfolios, although not covered in this report, sound stewardship of this fiduciary and social responsibility backed by taxpayer dollars is vital.

The actions FHA took throughout this past fiscal year to help those devastated by Hurricanes Harvey, Irma, and Maria and other natural disasters highlight the complexity of this dual responsibility. Disaster relief loss mitigation efforts will continue to be a prominent example as we focus efforts on the continued recovery in the hardest hit states and U.S. territories. In this report, you'll find additional details about how we are helping the victims of the 2017 natural disasters, and the impact the disasters had on FHA's Mutual Mortgage Insurance Fund (MMIF). We are also working now with the homeowners and communities devastated by the recent Hurricanes Florence and Michael.

As we look to the future, FHA must continue to seek the right balance between managing risk and fulfilling our role, so that we can continue to step in when and where the nation needs us most. To do this, I’ve established three guiding principles going forward for our work in Fiscal Year 2019:

1. **Staying true to our core mission.** FHA must focus its efforts on those things that promote access to sustainable mortgage credit for qualified first-time, low- and moderate-income and minority homebuyers, and seniors who choose to age in place with the help of our reverse mortgage program.

2. **Strengthening the foundation of our work.** To be successful long term, FHA must maintain the integrity of our insurance endorsements and attract additional quality lender participants. We need to assess the drivers behind the increase in higher-risk credit characteristics in the portfolio and make prudent and necessary changes so that FHA financing is widely available throughout the housing finance system. Our program should once again work for both depository and non-depository institutions that want to originate and service loans according to our requirements.

3. **Appropriately managing risks on behalf of borrowers, lender participants, and the U.S. taxpayer.** As of September 30, 2018, the MMIF Capital Ratio was 2.76 percent, slightly above the 2.00 percent required by Congress. While an increase from Fiscal Year 2017, this is a thin margin, and taxpayers should never be put at risk again.

The lack of modern technology is the greatest risk and the greatest challenge FHA faces. Without technology that works, and works well, we cannot maintain a complex insurance business, nor will we be in a strong position to provide a counter-cyclical role in times of housing market stress. I am encouraged by the support Congress and the housing industry has exhibited in recent months for funding FHA technology.

In the following pages you will find additional details about the actions we have taken this past fiscal year to address both our opportunities and challenges, and the work we must do to maintain a strong FHA in the coming years.

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) 2018* (Annual Report).

FHA manages the largest mortgage insurance portfolio in the U.S. mortgage finance system—Single Family Insurance-in-Force (IIF) for FY 2018 totaled $1.26 trillion, an increase of 3.08 percent from FY 2017. FHA's IIF represents approximately 10.91 percent of all U.S. single-family residential mortgage debt outstanding.[1]

Capital Ratio and Economic Net Worth

As highlighted in Exhibit O-1, the combined Capital Ratio in the MMIF for FY 2018 is 2.76 percent, an increase from the restated 2.18 percent Capital Ratio in the MMIF for FY 2017. This is the fourth year that the MMIF has exceeded the minimum Capital Ratio of 2.00 percent—a minimum capital reserve level mandated by statute. In FY 2018:

- The Economic Net Worth of the MMIF totaled $34.86 billion.
- Economic Net Worth comprises Total Capital Resources of $49.24 billion plus negative Cash Flow Net Present Value (Cash Flow NPV) of $14.38 billion.
- Economic Net Worth increased by $8.12 billion from the restated FY 2017 level, due to a $8.38 billion increase in Total Capital Resources that more than offset a decrease of $263 million Cash Flow NPV from FY 2017.

Exhibit O-1: Mutual Mortgage Insurance Fund (MMIF) Capital Ratio Components

Description	2017*	2018
Balances ($ Millions) as of September 30		
Total Capital Resources	$40,857	$49,237
Plus: Cash Flow NPV	($14,112)	($14,375)
Equals: Economic Net Worth	$26,745	$34,862
Insurance-In-Force	$1,226,843	$1,264,672
Balances as a Percent of Insurance-In-Force		
Total Capital Resources	3.33%	3.89%
Plus: Cash Flow NPV	-1.15%	-1.14%
Equals: Economic Net Worth - Capital Ratio	**2.18%**	**2.76%**

NOTE: FY 2017 figures for Total Capital Resources and Economic Net Worth, both dollar balances and as percentages of Insurance-In-Force, have been restated since the FY 2017 Annual Report.
SOURCE: U.S. Department of HUD/FHA, October 2018.

[1] U.S. single-family residential mortgage debt outstanding totaled approximately $10.72 trillion as of April 1, 2018. FHA reported $1.17 trillion of IIF for the month ending March 2018. Source data: FHA; Board of Governors of the Federal Reserve System (US), https://fred.stlouisfed.org/series/MDOTP1T4FR.)

In addition to the fiscal condition of the MMIF, FHA has once again provided stand-alone reporting on the financial status of both the Forward mortgage and HECM portfolios.

Stand-Alone Forward Mortgage Portfolio Highlights Include:

- The Capital Ratio for the Forward mortgage portfolio is 3.93 percent for FY 2018, an increase from 3.33 percent in FY 2017.
- The Forward mortgage portfolio continues to have a positive Economic Net Worth of $46.81 billion, an increase of $8.40 billion from FY 2017.

Stand-Alone HECM Mortgage Portfolio Highlights Include[2]:

- The Capital Ratio for the HECM portfolio is negative 18.83 percent, a further decline from the restated negative 18.30 percent for FY 2017.
- The HECM portfolio has an Economic Net Worth of negative $13.63 billion.
- Total Capital Resources in the HECM portfolio totaled $2.11 billion for FY 2018, which was offset by a negative $15.75 billion in Cash Flow NPV.

In October 2017, FHA made changes to HECM Principal Limit Factors (PLFs) and HECM Mortgage Insurance Premiums, which were made effective for FHA HECM case numbers assigned on or after October 2, 2017. Due to the lag time between case number assignment and FHA endorsement, FHA did not realize a full year of the beneficial effects of these changes.

The stand-alone reporting procedure was introduced to the Actuarial Review process in FY 2017, presenting a more granular reflection of the financial performance of the Forward and HECM portfolios and the cumulative contributions of each portfolio to the MMIF. Like last year, the capital adequacy of the Forward mortgage portfolio remained materially better than the HECM portfolio for FY 2018.

Adjustments to Certain Fiscal Year 2017 Calculations

In its FY 2018 Consolidated Balance Sheet and other financial statements, FHA corrected material errors to recognize a $1.12 billion understatement of its net position in FY 2017 in the MMIF. This material error directly impacted FHA's calculation of its Capital Ratio. In order to properly reflect the corrections made to the financial statements, the calculations contained in this report for the FY 2017 MMIF reflect the following adjustments:

- The MMIF Capital Ratio was recalculated to be 2.18 percent for FY 2017, an increase of 0.09 percent from the originally report amount of 2.09 percent;
- The Economic Net Worth of the MMIF was recalculated to be $26.744 billion for FY 2017, an increase of $1.120 billion;

[2] The FY 2018 Annual Report only includes figures for the performance of HECMs held in the MMIF. The financial performance for HECMs presented in the MMIF only account for a portion of the overall number of these mortgages. 22.66 percent of HECM Maximum Claim Amount (MCA) and 26.52 percent of mortgages are held in the General Risk/Special Risk Insurance (GI/SRI) Fund. *FHA's Production Report*, available on https://www.hud.gov/program_offices/housing/hsgrroom provides additional information about HECMs covered under the GI/SRI Fund.

- The stand-alone Capital Ratio for the HECM portfolio was recalculated to be negative 18.30 percent for FY 2017, compared to the originally reported Capital Ratio of negative 19.84 percent; and
- The Economic Net Worth of the HECM portfolio increased $1.120 billion from negative $14.474 billion to negative $13.354 billion for FY 2017.

The corrections to FHA's FY 2017 net position are the result of a discounting error in the HECM program's Return on Assets calculation. A detailed description of the causes and effects of this correction can be found in FHA's Annual Management Report for Fiscal Year 2018, available at www.hud.gov/program_offices/housing/hsgrroom/fhaamr.

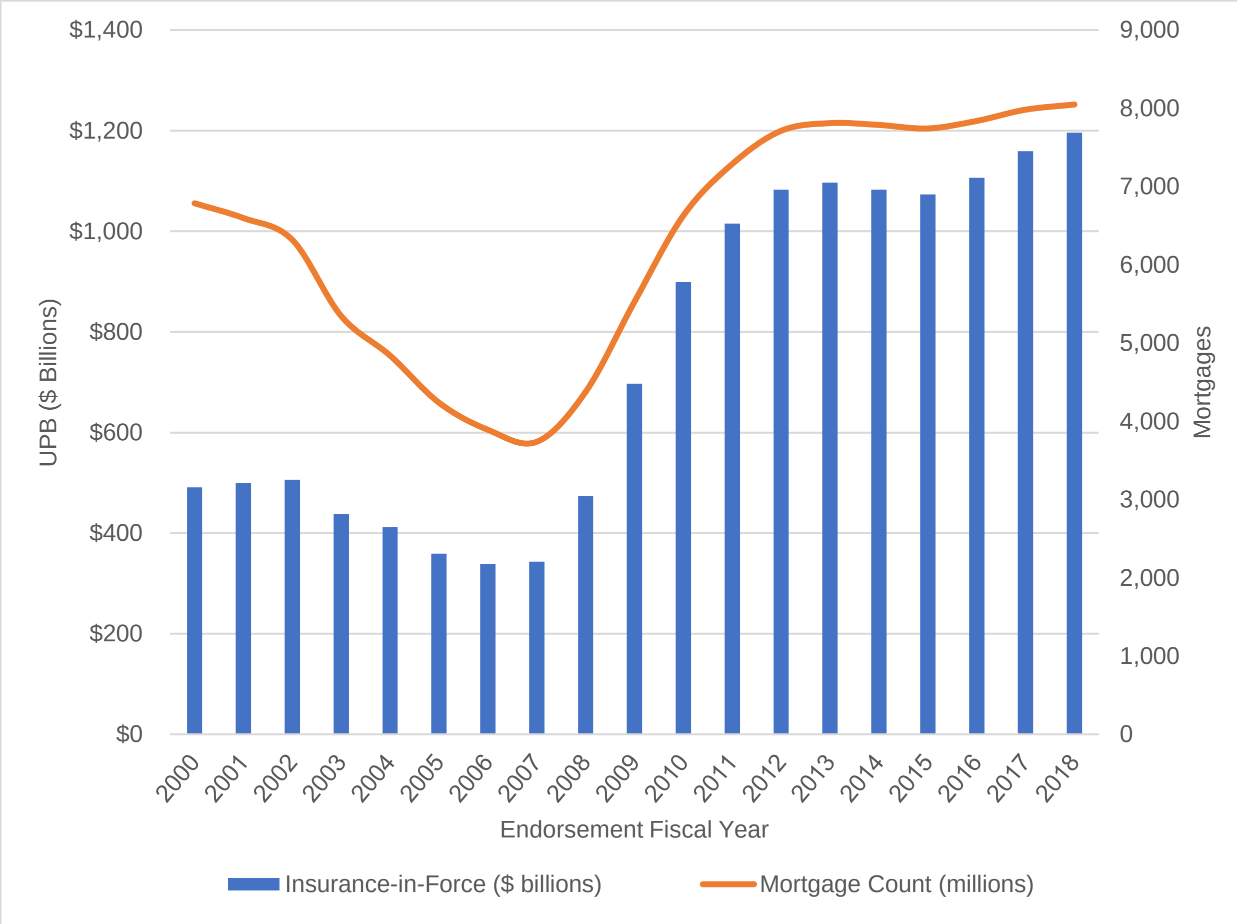
Key Forward Mortgage Highlights

FHA mortgage insurance continues to serve as an important facilitator for mortgage credit availability and access to homeownership. FHA's footprint in the U.S. housing market remains substantial, totaling $1.196 trillion of IIF. The over 8 million[3] FHA-insured mortgages comprised 12.10 percent of single-family residential mortgage originations (by dollar volume)—a decrease from the 13.45 percent market share in Calendar Year (CY) 2017 and down from the 17.90 percent post-crisis period peak occurring in CY 2009.[4]

[3] Tables A-1 and B-1.

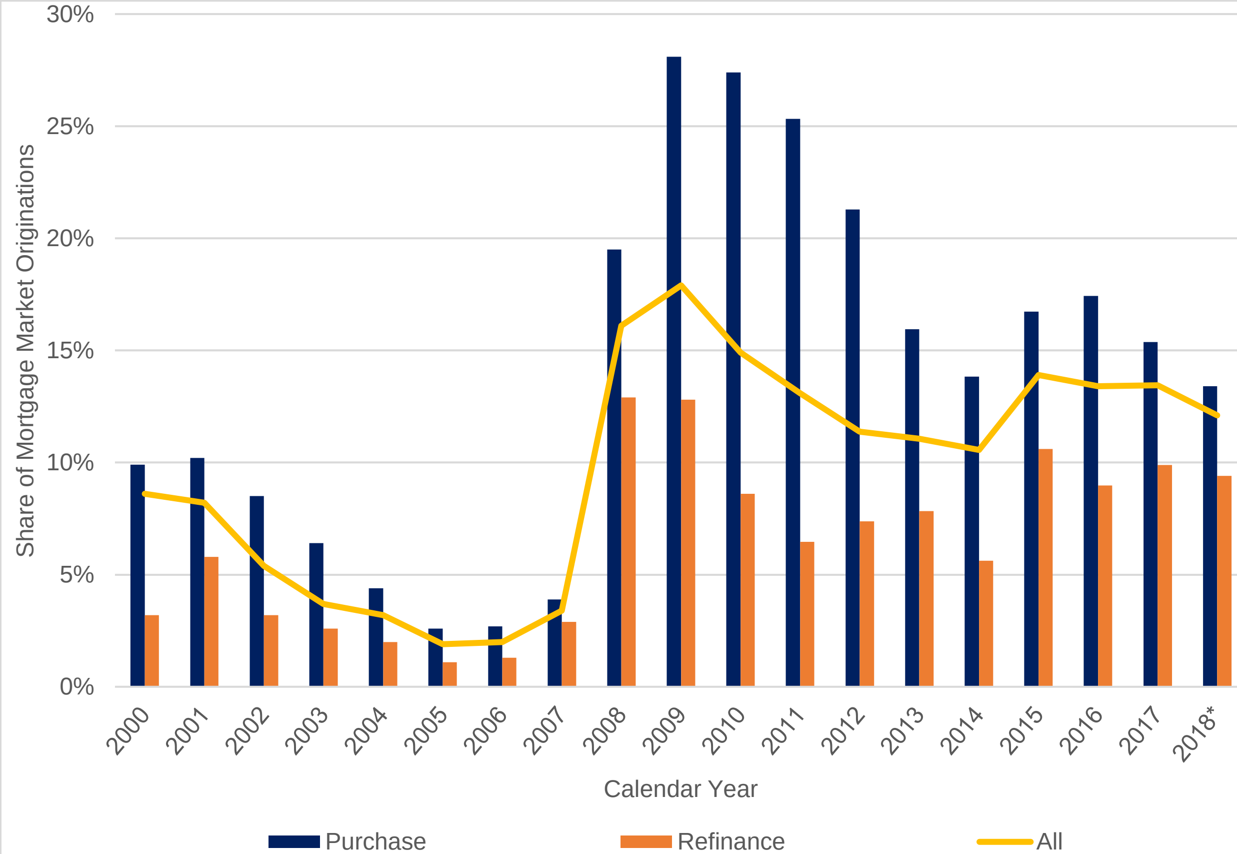
[4] These market share figures account for both purchase and refinance transactions. FHA's share of the purchase-only market stood at 13.40 percent in CY 2018, down from 15.38 percent in CY 2017 and 28.10 percent in CY 2009. Table A-2.

Exhibit O-2: FHA Single Family Forward Mortgage Insurance-in-Force



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table A-1 in Appendix A

Exhibit O-3: FHA Share of Market by Calendar Year (Percentage of Dollar Volume)



NOTE: The FY 2017 Annual Report used share of mortgage counts, whereas the FY 2018 Annual Report uses share of mortgage amounts. Originations based on beginning amortization dates. Includes all conventional and government single family forward originations. 2018 Market Share is calculated through June 30, 2018.
Source: U.S. Department of HUD as of October 6, 2018. Mortgage Bankers Association of America, “MBA Mortgage Finance Forecast,” September 2018, and Corelogic TrueStandings ® as of October 6, 2018.
Refer to data table A-2 in Appendix A.

Key highlights from the FY 2018 Forward mortgage portfolio include:

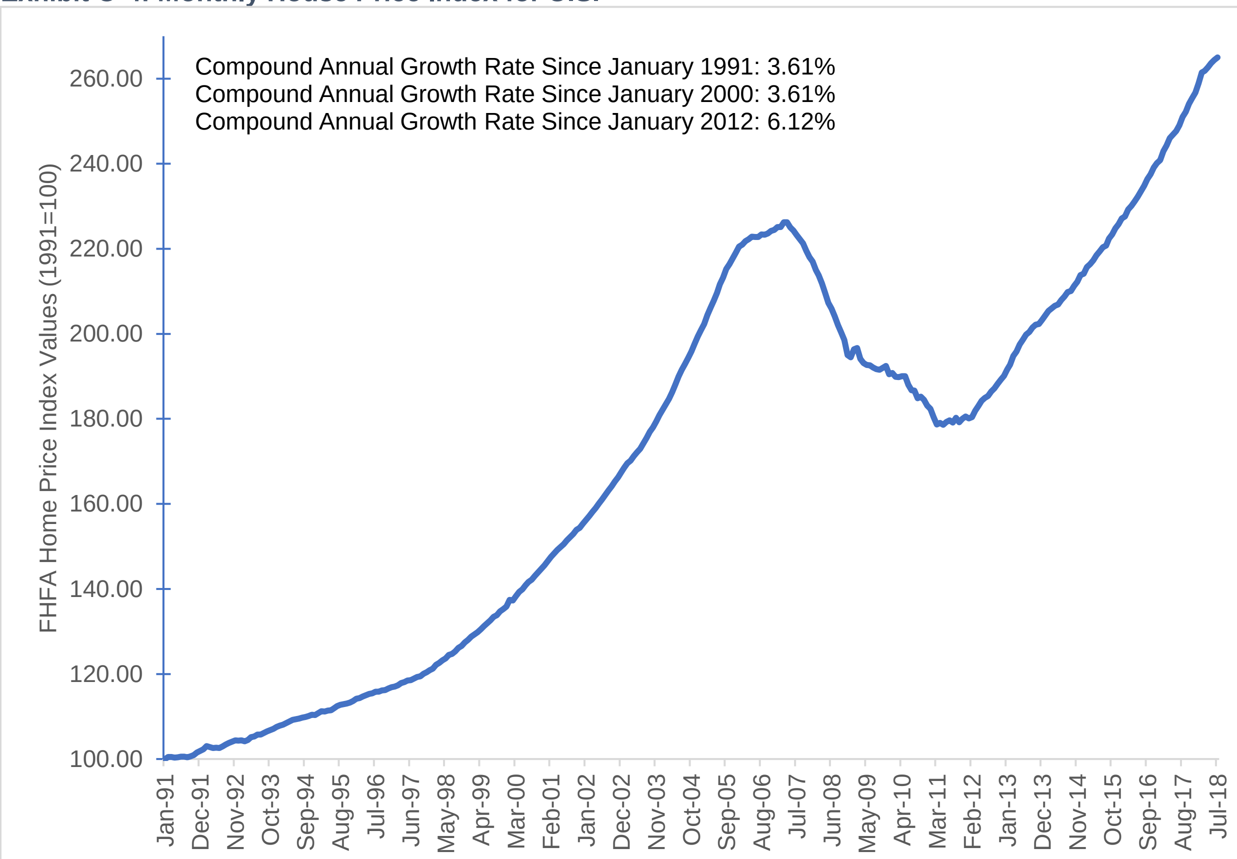
- FHA endorsed 1,014,609 Forward mortgages totaling $209.05 billion in unpaid principal balance (UPB).[5]
- Purchase mortgages represented 76.51 percent of FY 2018 endorsements, and the share for first-time homebuyers remained relatively stable at 82.69 percent in FY 2018.[6]
- 33.76 percent of FHA’s mortgage endorsements served minority borrowers in FY 2018, and 57.39 percent served low- to moderate-income borrowers.[7]
- The average mortgage amount for Forward mortgages was $206,041 in FY 2018, an increase of 2.34 percent from FY 2017.

As illustrated in Exhibit O-4 below, national home price indices reveal a sustained recovery in the U.S. since home prices in most markets reached post-crisis lows between 2011 and 2012.

[5] Table B-13.
[6] The share of FHA Forward mortgages for first-time homebuyers increased, but the count decreased from 725,284 to 642,921 between FY 2017 and FY 2018. Total purchase mortgages decreased from 882,0800 in FY 2017 to 776,284 in FY 2018. Table B-2.
[7] Table B-3.

Indeed, national home price growth, aided by low interest rates and a strengthening economy, has averaged over six percent annually since January 2012 as shown in the U.S. Monthly House Price Index published by the Federal Housing Finance Agency (FHFA). Overall, favorable economic conditions and general improvements in housing markets across the U.S., combined with risk management actions taken by FHA[8], have resulted in favorable trends in most key FHA portfolio credit metrics.

Exhibit O-4: Monthly House Price Index for U.S.



NOTE: Purchase Only, Seasonally Adjusted Index, January 1991-July 2018.
SOURCE: Federal Housing Finance Agency, October 2018.

Additional FY 2018 Forward mortgage portfolio performance indicators include:

- Early Payment Default (EPD) rates remain relatively stable and decreased to 0.44 percent in FY 2018, and down from 0.77 percent in FY 2017.[9] FY 2017 EPD rates were materially impacted by the natural disasters occurring in the fall of 2017.
- Serious Delinquency (SDQ) rates continue to decrease, ending FY 2018 at 4.11 percent, down from 4.32 percent a year ago. The SDQ rates in the U.S. Virgin Islands, Puerto Rico,

[8] In the FY 2017 Annual Report, FHA estimated that had the reduction in the Annual Mortgage Insurance Premium (Mortgagee Letter 2017-01) taken effect, the MMIF Capital Ratio would have fallen below the statutory minimum Capital Ratio of 2.00 percent to 1.85 percent. *Annual Report to Congress Regarding the Financial Status of the FHA Mutual Mortgage Insurance Fund for Fiscal Year 2017*.
[9] Table B-14.

and Texas spiked in December 2017, and in January 2018 in Florida. Puerto Rico had the highest increase, with an SDQ rate exceeding 21 percent in December 2017.[10]

- Total Forward mortgage claims were 74,508, for a total of $9.58 billion in FY 2018, down from 102,469 claims paid for a total of $13.29 billion in FY 2017.[11]
- FY 2018 loss rates improved to 43.58 percent, down from 49.92 percent in FY 2017.[12]
- In FY 2018, 452,073 mortgages required assisted cures, up from 359,542 in FY 2017. Deeper assistance cures[13] represented 25.90 percent of total assisted cures in FY 2018, down from 32.28 percent in FY 2017.[14]

Despite sound performance of the Forward portfolio, there are latent credit risks which persist that FHA is vigilantly monitoring to best protect American homebuyers, homeowners, and taxpayers while ensuring that it can properly fulfill its dual role of providing mortgage liquidity and serving as a counter-cyclical buffer in the mortgage finance system.

FHA continues to monitor credit risk on new endorsements:

- Cash-out refinances continue to be a large and growing segment of FHA new refinance endorsements, increasing from 141,885 mortgages in FY 2017 to 150,883 in FY 2018, and comprised 14.87 percent of total Forward endorsed mortgages in FY 2018.[15] Of particular note, in FY 2018 there was an increase in cash-out refinances of conventional mortgages to FHA mortgages.[16]
- The average borrower Debt-to-Income (DTI) ratio continued to increase for the sixth straight year and was 43.09 percent for FY 2018. The share of FHA-insured mortgages with DTIs exceeding 50 percent increased again, and rose more than four full percentage points – from 20.30 percent of total purchase mortgage endorsements in FY 2017 to 24.80 percent in FY 2018.[17]
- Average borrower credit scores continued to decline in FY 2018 to 670, from 676 in FY 2017. Decreases occurred for purchase endorsements as well as for conventional-to-FHA and FHA-to-FHA refinances.[18]
- The share of purchase mortgages with some form of downpayment assistance (DPA) increased to 38.79 percent in FY 2018, with 11.39 percent of these mortgages having downpayment funds provided by self-identified governmental entities. The overall share of purchase mortgages with DPA, however, has remained relatively constant for the last

[10] Tables B-15 and B-19.
[11] Table B-21.
[12] Table B-20.
[13] Deeper assistance cures are defined as those where the borrower's monthly payment is targeted for up to 20 percent reduction.
[14] Table B-22.
[15] Table B-4.
[16] Total endorsement activity for refinances decreased from 364,358 to 238,325 between FY 2017 and FY 2018. Tables B-4 and B-5.
[17] Table B-9.
[18] Table B-7.

three fiscal year cohorts.[19] Mortgages with DPA generally exhibit higher rates of delinquency and default[20], and those with such assistance financed by self-identified governmental entities have higher rates of default than those with other forms of DPA.[21]

- The share of FHA mortgages endorsed by depository institutions decreased again in FY 2018 to 13.35 percent, down from 14.09 percent in FY 2017 and significantly below the 43.58 percent reached in 2010.[22] The continuing decrease in depository institution participation in the program could have a significant impact on FHA's business. This decrease has been driven in part by concern with exposure arising from perceived False Claims Act liability. FHA believes that this trend impacts consumer access to credit and increases counterparty risk to FHA's Single Family mortgage insurance programs. FHA continues to monitor operational and counterparty risks that have arisen due to the decreasing share of depository institutions participating in the program.

Baseline Assessment of the 2017 Hurricanes' Impact on the MMIF

In this report, FHA is providing a baseline assessment of the impact of the 2017 Hurricanes Harvey, Irma, and Maria on the MMIF, and the actions FHA has taken to assist those whose lives and homes were devastated by these and other disasters. Chapter I of this report includes an analysis of FHA SDQ and EPD rates for those states most severely impacted by the hurricanes. Chapter III of this report includes a description of the policy actions FHA took throughout FY 2018 to assist homeowners with FHA-insured mortgages in Puerto Rico, the U.S. Virgin Islands, Texas, Florida, and other areas severely impacted by natural disasters. These actions included initiating multiple extensions of the foreclosure moratorium and deadlines to initiate foreclosure, the development of a special Stand-Alone Partial Claim loan modification option, and revisions to the Disaster Loss Mitigation Waterfall.

Financial and other loss projections in the MMIF for FY 2018 do not include any estimated impacts from the effects of the fall 2018 Hurricanes Florence and Michael. FHA anticipates future claims and losses as a result of these hurricanes, but at this time the expected loss from the damage caused by them, given that they occurred late in FY 2018, cannot be reasonably estimated.

Key HECM Portfolio Highlights

The HECM program continues to provide eligible seniors with a financing option that allows them to "age in place." While several reverse mortgage lenders have begun offering proprietary

[19] Table B-10.
[20] Tables B-16 and B-17 illustrate the comparative performance using EPD and SDQ rates for mortgages with DPA and without such assistance.
[21] Tables B-16 and B-17.
[22] Table B-11.

products, FHA continues to have a dominant presence in the reverse mortgage market. HECMs in the MMIF total 402,444 mortgages with IIF totaling $72.41 billion.[23]

Key highlights from the FY 2018 HECM portfolio include:

- FHA endorsed 48,327 HECMs in FY 2018 with a Maximum Claim Amount (MCA)[24] of $16.19 billion. This is 6,964 endorsements fewer than FY 2017 and $1.50 billion less in MCA.[25]
- Average MCA per HECM reached $334,989 FY 2018.[26]
- The HECM portfolio grew to $72.41 billion of IIF, $111.34 billion in total outstanding MCA, and $87.13 billion in total current Principal Limit.[27]
- Average borrower age for a newly endorsed HECM increased minimally, from 73.16 years of age in FY 2017 to 73.34 years of age in FY 2018.[28]
- By far the largest state for HECM endorsements by MCA is California at 33.17 percent, followed by Florida at 6.79 percent, and Colorado at 6.67 percent. HECMs are more geographically concentrated than Forward mortgages.[29]
- Claims from HECMs continued to increase in FY 2018. The overall amount paid on HECM claims increased to $5.69 billion, up from $5.03 billion in FY 2017 and a substantial increase from the $0.29 billion of claims paid in FY 2009.[30]
- As a result of rising claims, FY 2018 net cash flow from insurance operations was negative 21.75 percent of HECM average IIF.[31]

Addressing HECM Portfolio Volatility

The financial performance of the HECM portfolio has been historically volatile, largely due to uncertainty in future home prices, interest rates, and other factors

In FY 2017, FHA took significant actions to improve the fiscal condition of the HECM program by implementing updated PLFs effective with case numbers issued on or after October 2, 2017. The full impact from updated PLFs was only recognized in September 2018 when nearly 100

[23] The IIF in the HECM portfolio totaled 547,721 mortgages and $143.87 billion as of September 2018, with 402,444 mortgages and $111.27 billion covered in the MMIF. Table B-24.
[24] Maximum Claim Amount is the lesser of the appraised value or purchase price of the property, but not to exceed FHA's HECM loan limit (currently $679,650).
[25] Table B-23.
[26] Table B-26.
[27] Table B-24.
[28] Table B-28.
[29] Table B-33.
[30] Since the transition to the MMIF in 2009, Claim Type 2 (those representing 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) has increased significantly. In FY 2009, the claims paid out on Claim Type 2 was $281 million. Claims under Claim Type 2 have increased to $5.50 billion in FY 2018. While less in total amount, a similar trend has occurred in the amount paid on Claim Type 1, which represents the dollar volume of claims generated when the borrower no longer occupies the home and the property is sold at a loss, and without the mortgage being assigned to the Secretary. In FY 2009, Claim Type 1 totaled $5,818, and by FY 2018 totaled $612 million, down from $755 million in FY 2015. Table B-25.
[31] Table II-9.

percent of new HECMs were endorsed under the new PLFs. As a result of the transition, Principal Limits (PL) as a share of MCA declined through the course of FY 2018 from 59.97 percent to 50.23 percent. A full discussion of the impact of these changes can be found in Chapters I and II of this report.

To further mitigate risks for new HECM endorsements, FHA made revisions to collateral valuation (property appraisal) practices for HECM endorsements beginning in FY 2019. As of October 1, 2018, FHA performs a collateral (property appraisal) risk assessment on all HECMs submitted for insurance endorsement. Lenders are required to provide a second independent property appraisal in cases where FHA determines there may be inflated property valuations. Financial soundness of FHA's reverse mortgage program is contingent upon an accurate determination of a property's value and condition. The property value is used to determine the amount of equity that is available to the borrower, and it is also used by FHA to determine the amount of insurance benefits paid to a lender. A larger discussion of this policy change is contained in Chapter III of this report. FHA will continue to assess the HECM portfolio throughout FY 2019 and consider other changes as warranted.

Barriers to Protection of the MMIF and Success of FHA's Single Family Mortgage Insurance Programs

Chapter III of this Annual Report details emerging risks in FHA's Single Family programs, and barriers impacting FHA's ability to adequately address the identified risks in its programs. These barriers include specific statutory provisions impacting FHA's ability to manage its programs, in the following key areas:

- Prohibited Sources of Downpayment Assistance;
- Mortgagee Review Board Authorities; and
- Limitations on Civil Money Penalties.

A Note on the Actuarial Review Process Enhancements Introduced in the FY 2017 Annual Report

As part of a multi-year plan to revise the MMIF Actuarial Review process, FHA implemented in the FY 2017 Annual Report enhancements to roles, responsibilities, and methodologies with regard to preparation of its annual report. The FY 2018 Annual Report maintains these enhancements:

- *Greater Consistency with FHA Audited Financial Statements*—FHA produced the baseline estimate of Cash Flow NPV, resulting in more consistent results by harmonizing its financial and budgetary reporting. This change enabled FHA to standardize the underlying data and reporting methodologies used to produce Cash Flow NPV with those utilized to estimate the Liability for Loan Guarantees (LLG).
- *Federal Credit Reform Act of 1990 (FCRA) Compliance*—The baseline estimate and related sensitivities were developed by FHA in accordance with the requirements of

FCRA. The baseline estimates were developed utilizing the President's FY 2018 Mid-Session Review budget assumptions. All estimates of Cash Flow NPV are based on IIF as of the end of FY 2018 with no future endorsements.

- *Critical Role for Independent Actuary*—By serving as an important check on FHA's methodology and results, an independent Actuarial Review remains an integral part of the Annual Report. As with the FY 2017 report, the independent actuary was responsible for providing an independent assessment and opinion regarding the reasonableness of FHA's Cash Flow NPV estimate.
  - *Pinnacle Actuarial Resources, Inc.* ("Pinnacle") is the independent actuary that prepared the review of the MMIF for the FY 2018 Actuarial Review. Selected results from Pinnacle's reports for both Single Family Forward mortgages and HECMs are referenced throughout the report. To read the complete review of the MMIF provided by Pinnacle, please visit https://www.hud.gov/program_offices/housing/rmra/oe/rpts/actr/actrmenu.
  - FHA's estimates of Cash Flow NPV are well within Pinnacle's reasonable range of Actuarial estimates, and Pinnacle's Actuarial central estimates for the MMIF exceeded FHA's and differ by only 0.29 percent of IIF.
- *Better Alignment to Statutory Requirements*—For the purposes of calculating the MMIF Capital Ratio, as well as the stand-alone capital ratio for HECM, IIF for HECM was calculated using aggregate Unpaid Principal Balance (UPB)[32] versus the prior practice of using aggregate MCA. This change more appropriately aligns to statutory requirements and the treatment of the Forward portfolio and addresses the tendency of the prior methodology to overstate the HECM capital ratio when Economic Net Worth is negative, as it has been for the last several fiscal years.

Capital Ratio Tested Under Alternative Economic Scenarios

Understanding the capital adequacy of the MMIF, and the Forward mortgage and HECM portfolios on a stand-alone basis, allows FHA to effectively manage risk. Such an assessment of capital adequacy across a range of economic environments is a critical component of evaluating future policy decisions, such as Mortgage Insurance Premium (MIP) adjustments, and overall portfolio risk tolerance.

Consistent with last year's report, this year's Annual Report provides an assessment of the financial performance of the MMIF under 100 alternative historical economic scenarios using assumptions spanning from highly stressed economic conditions to robust positive growth in the economy and housing market.

Based on current Forward mortgage and HECM IIF (and existing Total Capital Resources), this stress testing illustrates that:

- The MMIF Capital Ratio would remain at or above the 2.00 percent statutory minimum requirement in 94 outcomes;

[32] UPB is the current outstanding principal balance due on the mortgage.

- In an additional four outcomes, the MMIF Capital Ratio would fall below 2.00 percent but remain above zero; and
- The remaining two outcomes would result in the MMIF Capital Ratio falling below zero.

Importantly, the stress testing illustrates the asymmetric distribution of risk and return that the MMIF faces[33]. As detailed in the discussion and shown in Exhibits II-17 through II-19 in Chapter II, severely adverse scenarios generally result in greater negative impact on the MMIF than corresponding gains under favorable economic conditions.

A Note About Cash Flow NPV: Meaning and Risks

As noted earlier, Cash Flow NPV is a critical component of Economic Net Worth and the MMIF Capital Ratio, and is calculated according to the requirements of FCRA based on a single economic scenario.[34] Thus, Cash Flow NPV does not represent the fair value that willing market participants would pay for the future net cash flows of the MMIF.

According to the Congressional Budget Office (CBO), "Unlike FCRA estimates, fair-value estimates account for the cost of the market risk that taxpayers face because federal payments to cover losses on guaranteed mortgages tend to be high when economic and financial conditions are poor and resources therefore more valuable."[35]

When modeled across a range of economic scenarios, Cash Flow NPV demonstrates that the decrease in present value in stressful economic scenarios is substantially greater than the increase in present value in favorable economic scenarios. Again, this asymmetric risk profile, generally applicable to all mortgage credit risk-bearing activity such as mortgage insurance, is evident in FHA's capital adequacy testing results presented in Chapter II.

In addition, estimates of Cash Flow NPV are dependent on a variety of assumptions, critical estimates, complex models, and projections for economic variables such as future national and regional home prices, and interest rates.

HECM estimates present added uncertainty due to reliance on long-dated future projections of home prices and interest rates, assumptions regarding the timing and amount of borrower draws from any available credit line, mobility (the degree to which borrowers move out of the home while still living), mortality, and the risk and uncertainty created by appraisal bias.

Other FHA Programs and Exposures

This Annual Report is statutorily required to address mortgages insured in the MMIF. FHA has various other programs, including its Single Family Title I program, Multifamily, and Healthcare

[33] FHA refers readers to Chapter II for a complete discussion of the sensitivity analysis of the MMIF's capital adequacy. Exhibit II-16, for example, illustrates the Capital Ratio sensitivity due to changes in interest rates compared to changes in home price appreciation.

[34] FHA is required by statute to report fund solvency according to the standards provided in FCRA, but this does not preclude FHA from implementing additional risk management methodologies that may be better suited to capturing the tail risk for each fiscal year cohort of mortgages that populate the MMIF. Also, the distribution of risk in FHA's portfolio is not uniform: it may very likely not be appropriate to use a normal central estimate when there is substantial risk in the tails of the Fund.

[35] CBO report titled "Options to Manage FHA's Exposure to Risk from Guaranteeing Single-Family Mortgages" dated September 2017. Excerpt is from footnote c. in Table 1 on page 3 of the report.

Facility insurance programs that are not part of the MMIF. Readers interested in a comprehensive view of all of FHA's programs, exposures, and the related audited financial statements should see the FHA Annual Management Report for Fiscal Year 2018.[36]

Report Structure

The remainder of this report is structured as follows:

- Chapter I presents a summary of the credit portfolio for both the Forward mortgage Program and the HECM program. Chapter One includes notable trends affecting the risk characteristics for new endorsements to the MMIF from both programs during FY 2018.
- Chapter II contains an analysis of the performance of the MMIF, which includes a detailed breakdown of the MMIF Capital Ratio and the stand-alone capital ratios for the Forward and HECM portfolios. This chapter provides key highlights from the Independent Actuary's audit and stress test of the capital adequacy of the MMIF.
- Chapter III provides a discussion of FHA's Office of Single Family Housing's response to the fall 2017 disasters, and discusses emerging risk characteristics. The chapter also identifies important legislative barriers impacting the financial performance and operational integrity of its Single Family programs that FHA lacks the ability to address independently to further its efforts to protect the MMIF.

[36] https://www.hud.gov/program_offices/housing/hsgrroom/fhaamr

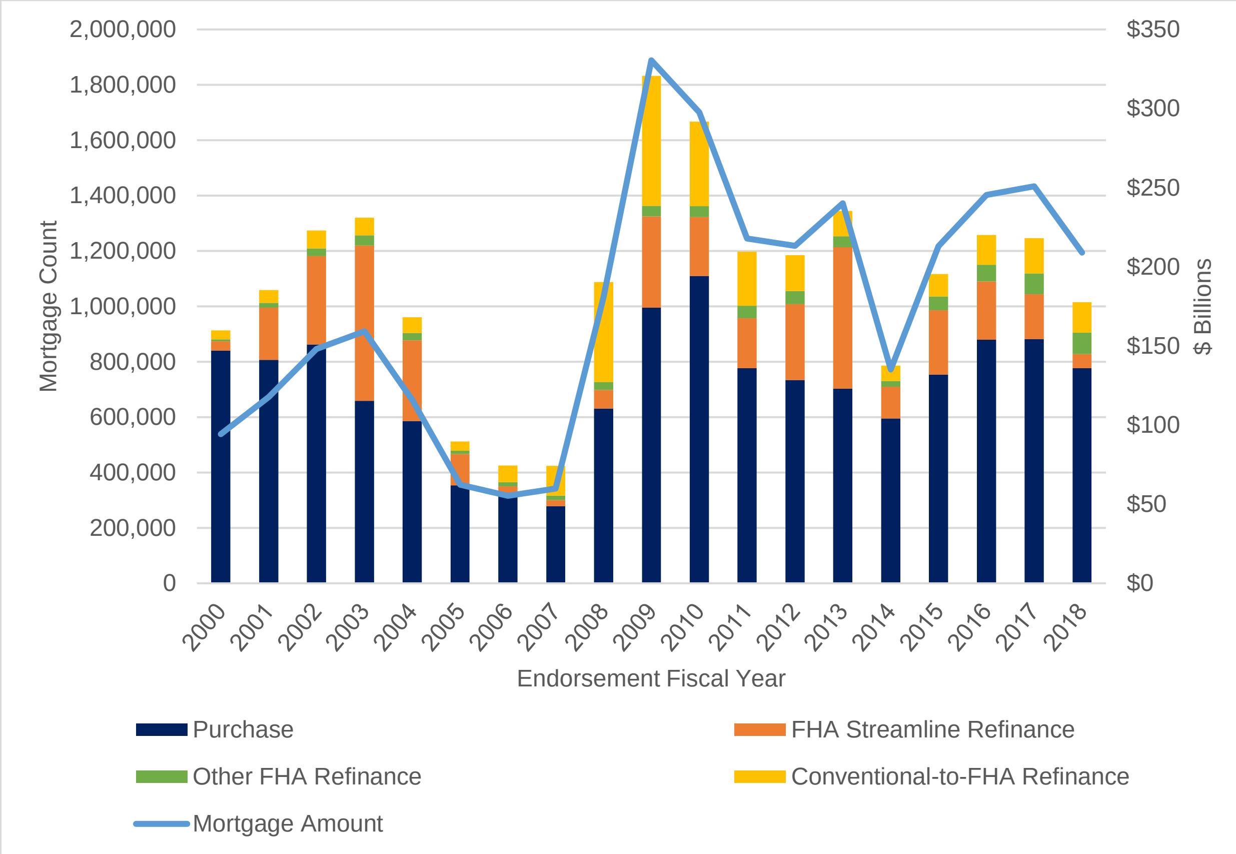
Chapter I: FHA Single Family Mortgage and Borrower Characteristics

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, including both fixed- and adjustable-rate mortgages. By absorbing mortgage credit risk for lenders, FHA insurance expands liquidity and enables 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 better 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 new endorsements serving first-time homebuyers. FHA-insured mortgages also continue to serve as an important source of financing for minority homebuyers.

Exhibit I-1: Historical FHA Forward Mortgage Endorsement Activity

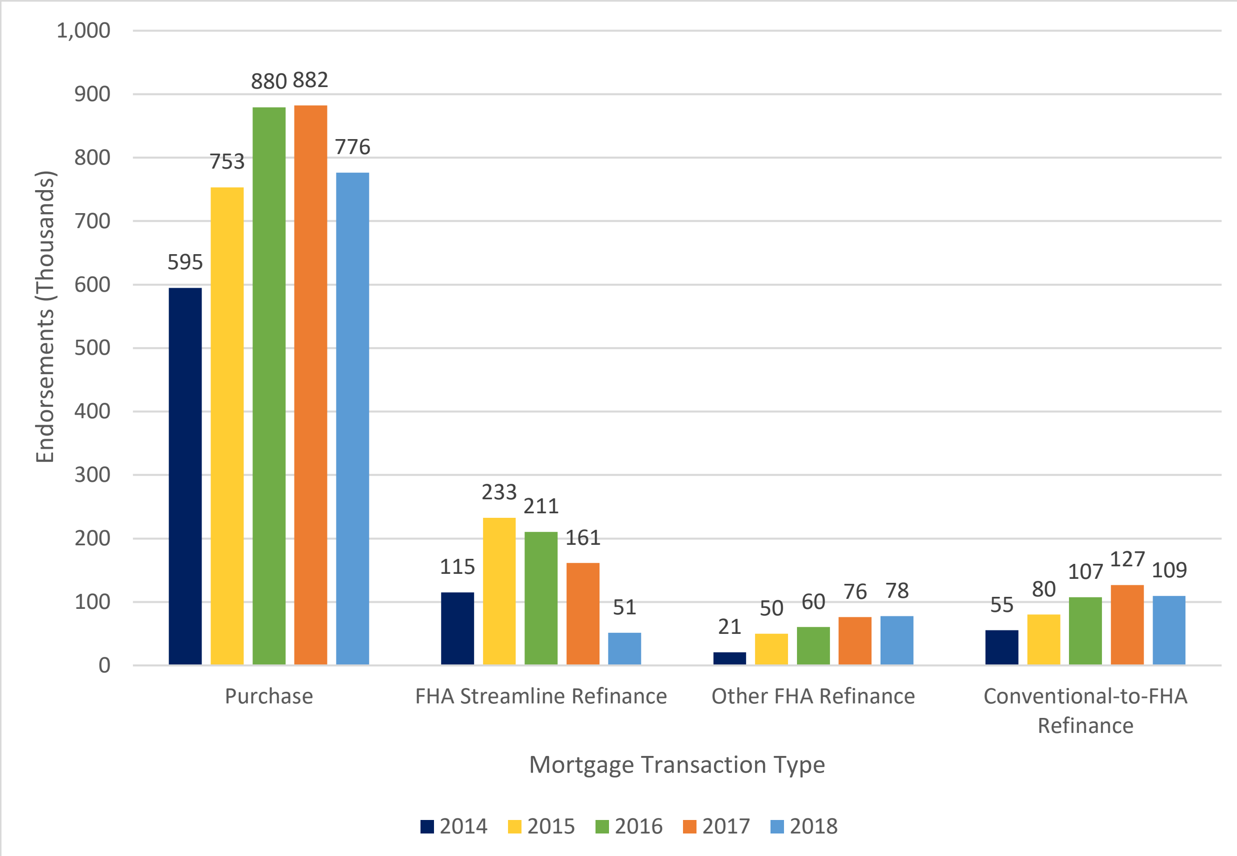


SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-1 in Appendix B.

Exhibit I-1 provides an historical overview of FHA Forward mortgage endorsements by purpose and the aggregate Unpaid Principal Balance (UPB) of endorsed mortgages for the last 19 fiscal years. In FY 2018, FHA endorsed 1,014,609 Forward home mortgages, including 776,284 purchase mortgages. Of these purchase transactions, 641,921 served first-time homebuyers.[37] Total new endorsements by count in FY 2018 were lower than in FY 2017. The UPB of all endorsed Forward mortgages – purchase and refinance – in FY 2018 totaled $209.05 billion, down from total FY 2017 endorsement UPB of $250.96 billion. The average Forward mortgage amount of FHA endorsements in FY 2018 was $206,041, an increase of 2.34 percent from the FY 2017 average of $201,338.

[37] 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: Recent FHA Forward Endorsement Activity by Mortgage Transaction Type



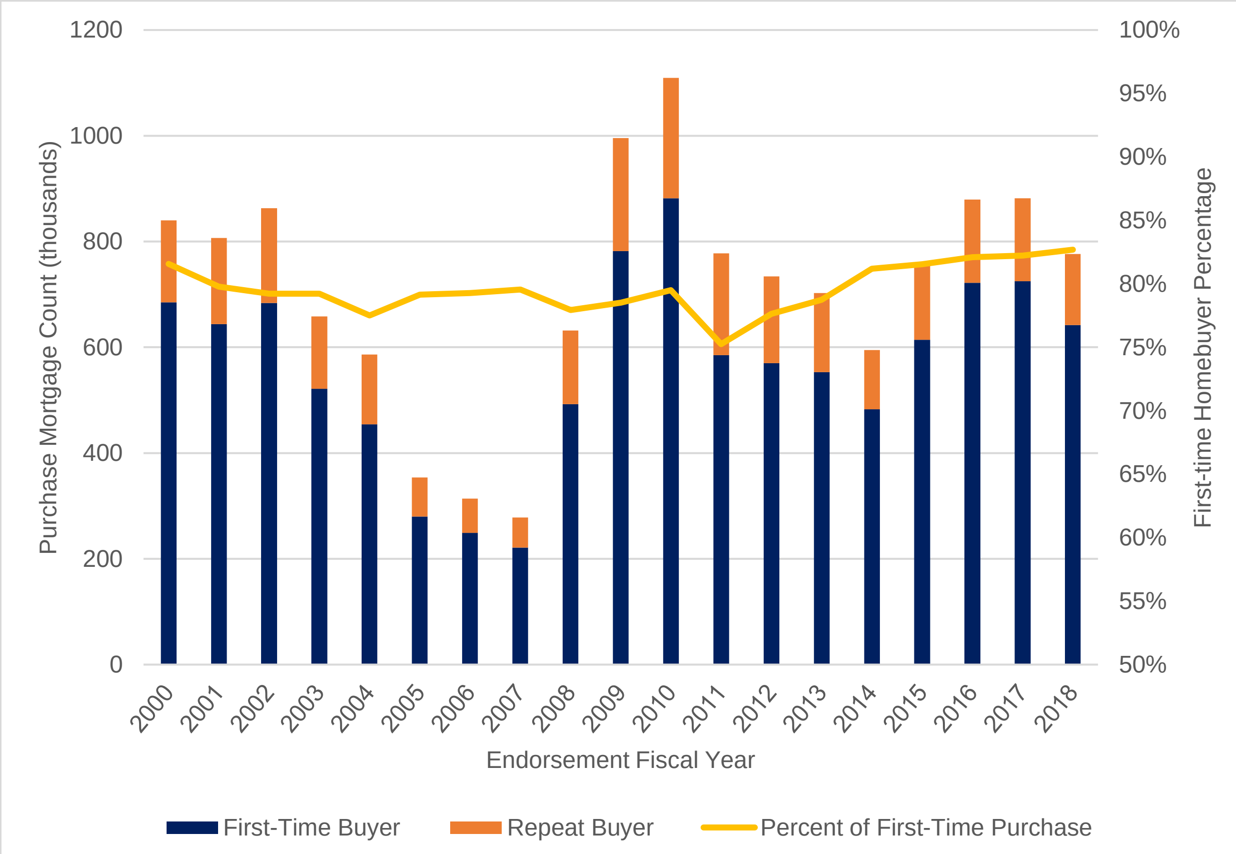
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-1 in Appendix B.

Exhibit I-2 summarizes FHA Forward mortgage endorsement activity over the last five years. In FY 2018, purchase endorsements decreased from the prior year level by 11.99 percent. This decrease was caused by increasing interest rates and FHA's market share continuing to trend lower due to increasing availability of low-downpayment financing from other sources.

Fully underwritten FHA-to-FHA refinances increased by 1.89 percent, and conventional mortgages refinancing into FHA-insured mortgages decreased by 13.72 percent in FY 2018.

The total number of mortgages refinancing with FHA decreased from FY 2017 to FY 2018 by 34.59 percent, with the highest decline being in FHA Streamline Refinances. FHA Streamline Refinance program activity decreased sharply from FY 2017 by 68.22 percent, likely due to increasing interest rates.

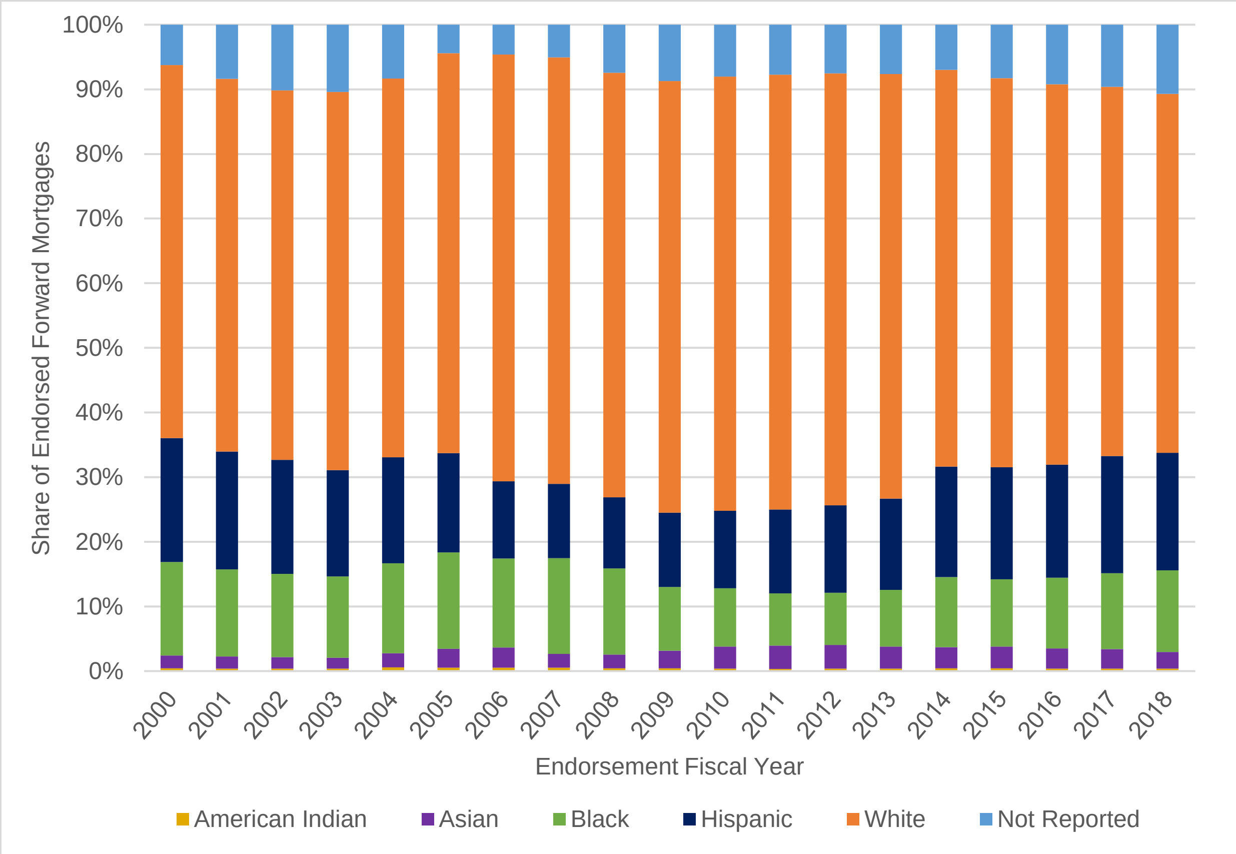
Exhibit I-3: Historical Purchase Mortgage Activity and FHA First-Time Homebuyer Share



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-2 in Appendix B.

As illustrated by Exhibit I-3, 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 first-time homebuyers in FY 2018 was 82.69 percent, remaining consistent with FY 2017 levels, for Forward mortgages endorsed. The average age of FHA first-time homebuyers has increased from 33.49 years in FY 2001, to 38.12 years in FY 2018.

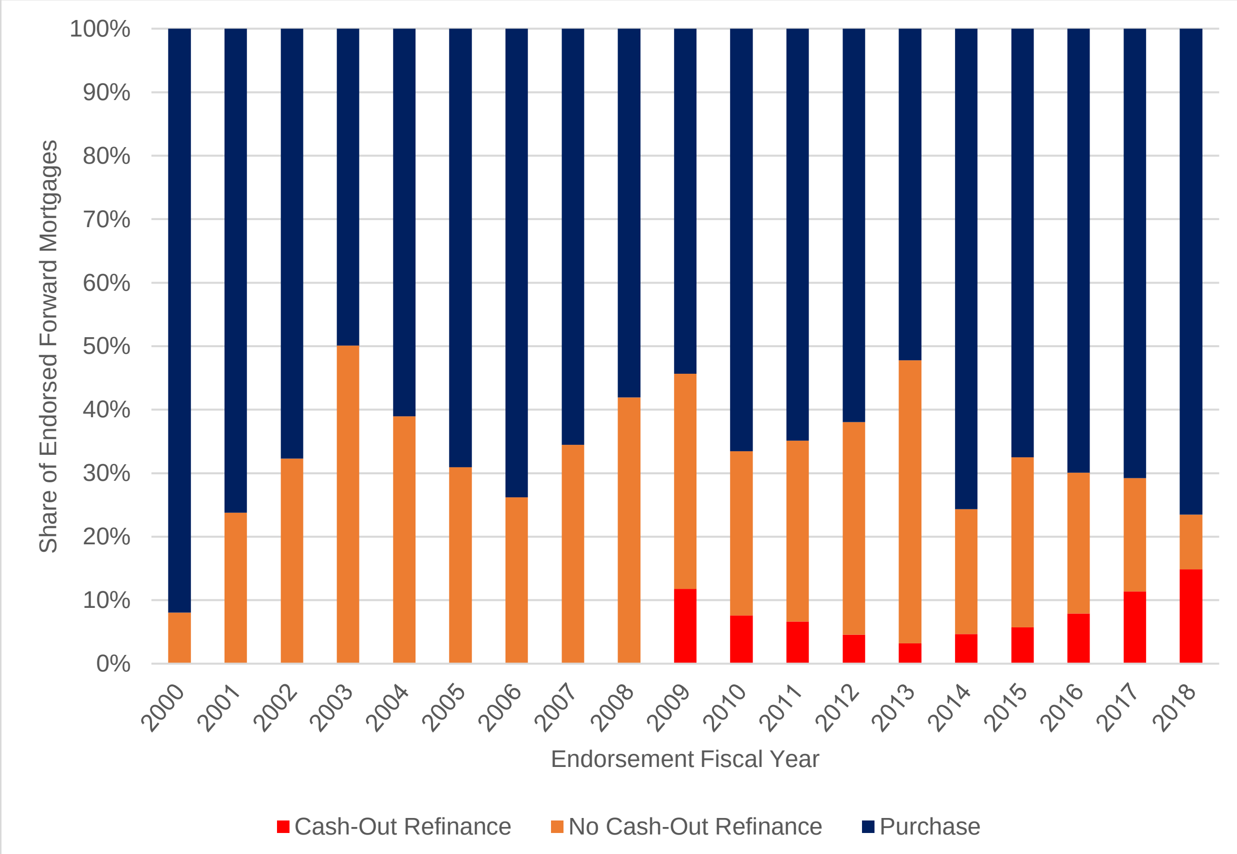
Exhibit I-4: Racial Composition of FHA Forward Endorsed Mortgages



SOURCE: U.S. Department of HUD/FHA, October 2018.
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-4 shows that for FY 2018, 33.76 percent of FHA endorsements served minority borrowers, up slightly from 33.27 percent in FY 2017. For FY 2018, the composition of minority borrowers was: 18.18 percent Hispanic; 12.63 percent Black; 2.60 percent Asian; and 0.36 percent American Indian. Based on Calendar Year (CY) 2017 Home Mortgage Disclosure Act (HMDA) data, FHA endorsed mortgages served 34 percent of all minority borrowers with purchase mortgage transactions.

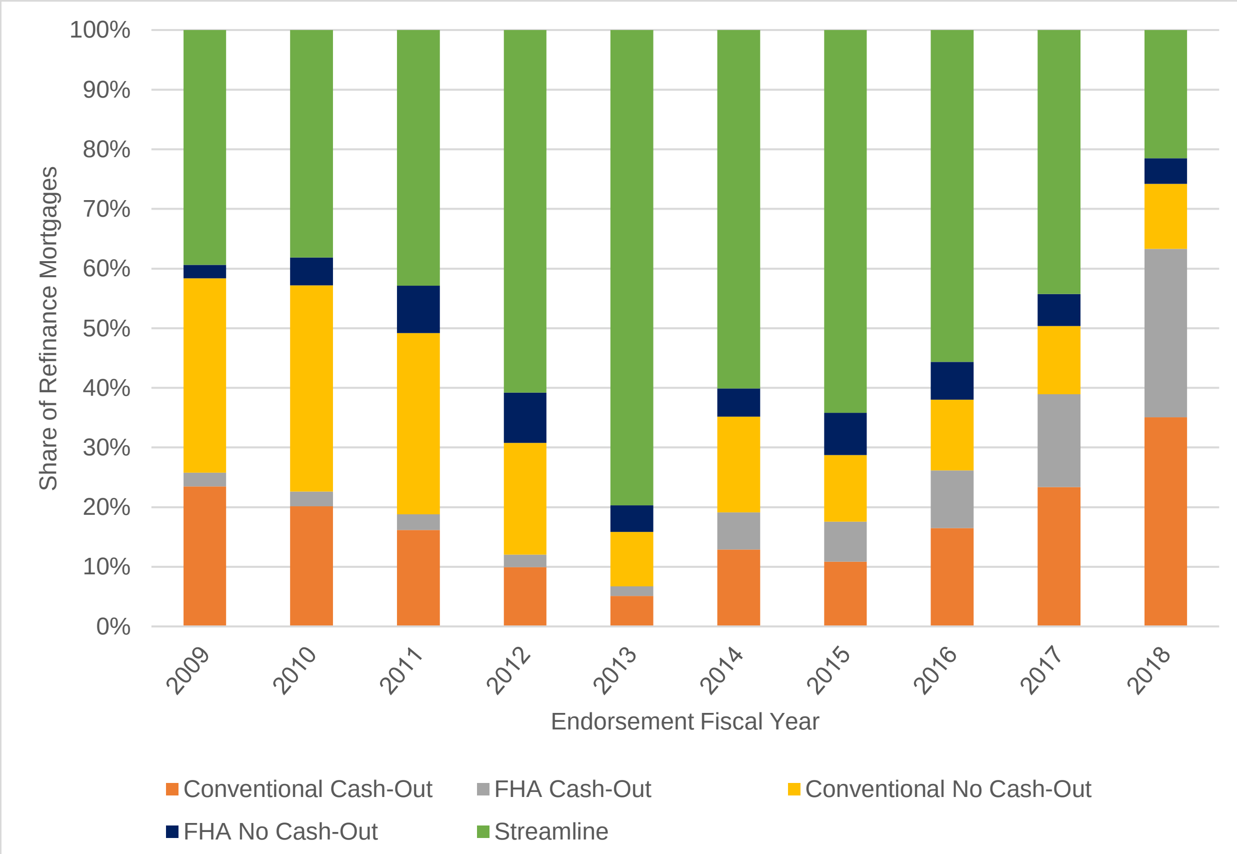
Exhibit I-5: Historical FHA Forward Endorsement Activity: Highest Recorded Share of Cash-Out Refinances



NOTE: Cash-Out Refinance data is not available prior to FY 2009.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-4 in Appendix B.

In FY 2018, FHA-insured purchase mortgages represented 76.51 percent of all FHA-insured endorsements, an increase of 5.75 percentage points from FY 2017. Notably, the total number of FHA endorsements with cash-out refinance mortgages has increased 250.47 percent – from 43,052 in FY 2013, which had the lowest share of cash-out refinances – to 150,883 in FY 2018. A cash-out refinance is a refinance of any mortgage or a withdrawal of equity where no mortgage currently exists, in which the mortgage proceeds are not limited to specific purposes. 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-6: FHA Endorsement Activity by Refinance Type Including Cash-Out Refinances



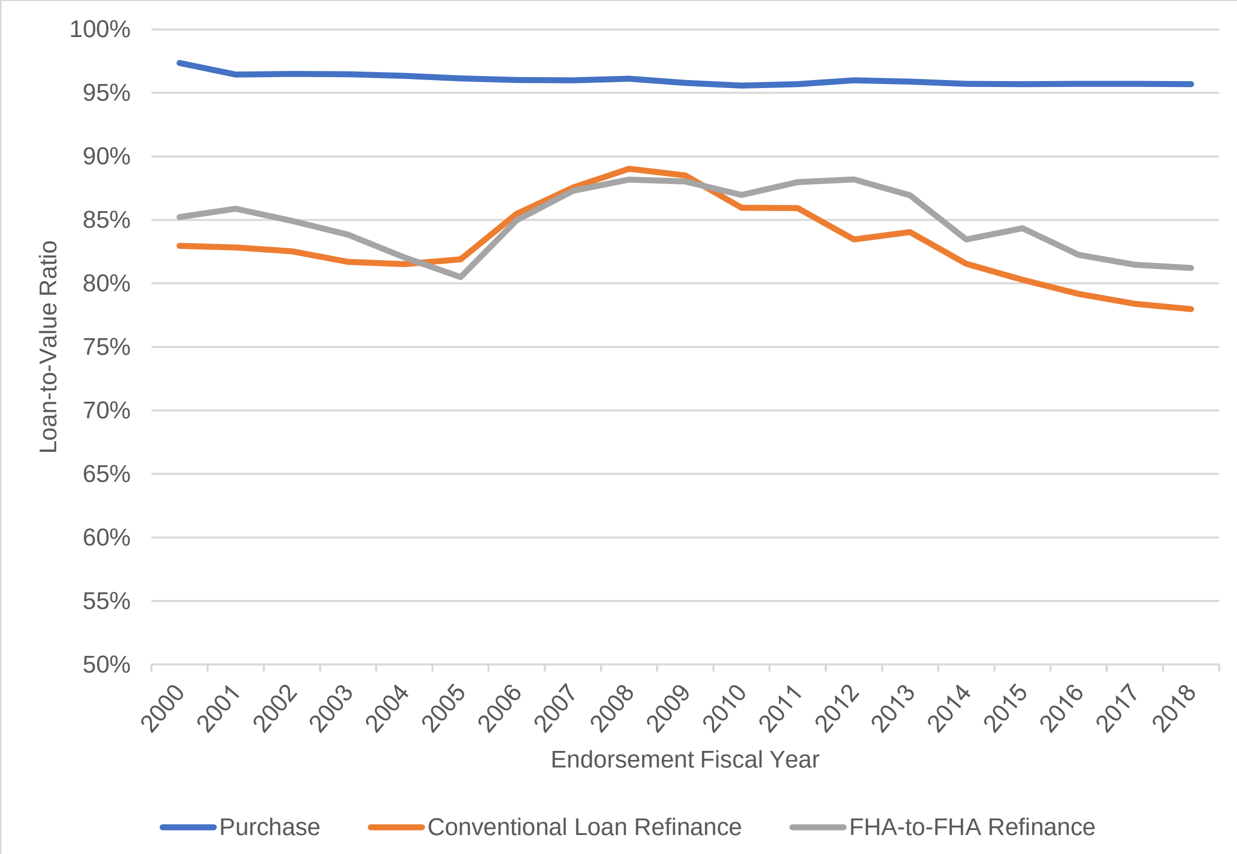
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-5 in Appendix B.

Exhibit I-6 provides a detailed breakdown of FHA refinance mortgage endorsements by type of refinance transaction. In FY 2018, cash-out refinance transactions represented 63.31 percent of all of FHA refinance transactions, a substantial increase from the FY 2017 level of 38.94 percent. The increase in cash-out refinance activity primarily reflects an increase in the number of endorsements where the borrower’s prior mortgage was an FHA mortgage. An additional 10.87 percent of FHA-insured refinance transactions are mortgages refinancing into an FHA-insured mortgage from the conventional market without taking cash out, which is a slight decrease from 11.44 percent in FY 2017.

The share of refinances with cash-out are a larger portion of FHA’s refinance business 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.

FHA’s ongoing review of the Single Family program includes an analysis of cash-out refinances to determine their impact and relevance to its mission.

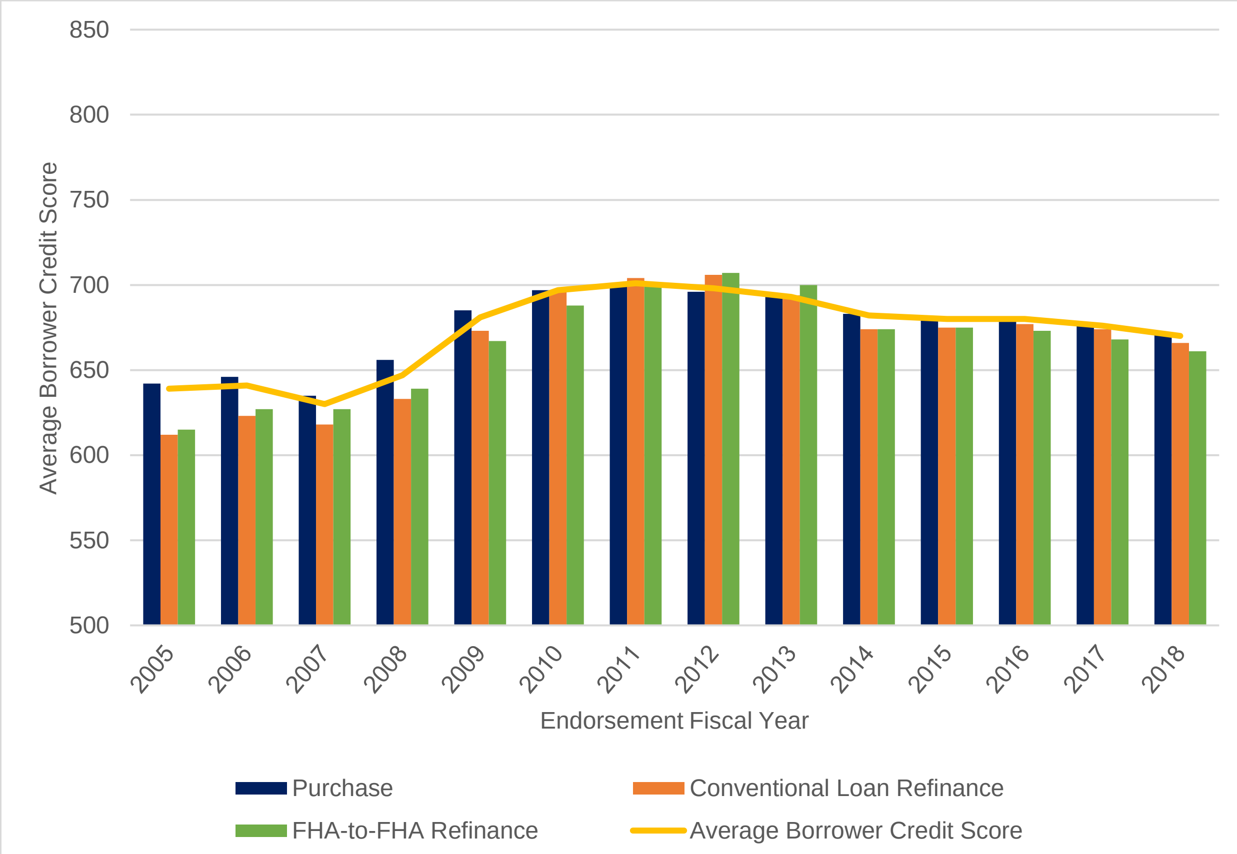
Exhibit I-7: Average FHA Forward Loan-To-Value Ratio by Mortgage Purpose



NOTE: In accordance with statutory requirements for determining eligibility of mortgages for FHA insurance, FHA measures loan-to-value (LTV) 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 2018.
Refer to data table B-6 in Appendix B.

The average loan-to-value (LTV) ratio for purchase transactions in FY 2018 was 95.70 percent, unchanged from the FY 2017 average LTV ratio. 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. As Exhibit I-7 illustrates, the average LTV ratio for FHA-insured purchase 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 77.98 percent, and FHA-to-FHA refinances at 81.22 percent in FY 2018. Home price appreciation and an increase in endorsements of FHA cash-out refinance mortgages, which are limited to a maximum LTV ratio of 85 percent, are contributing factors to the declining average LTV ratio of new refinance endorsements.

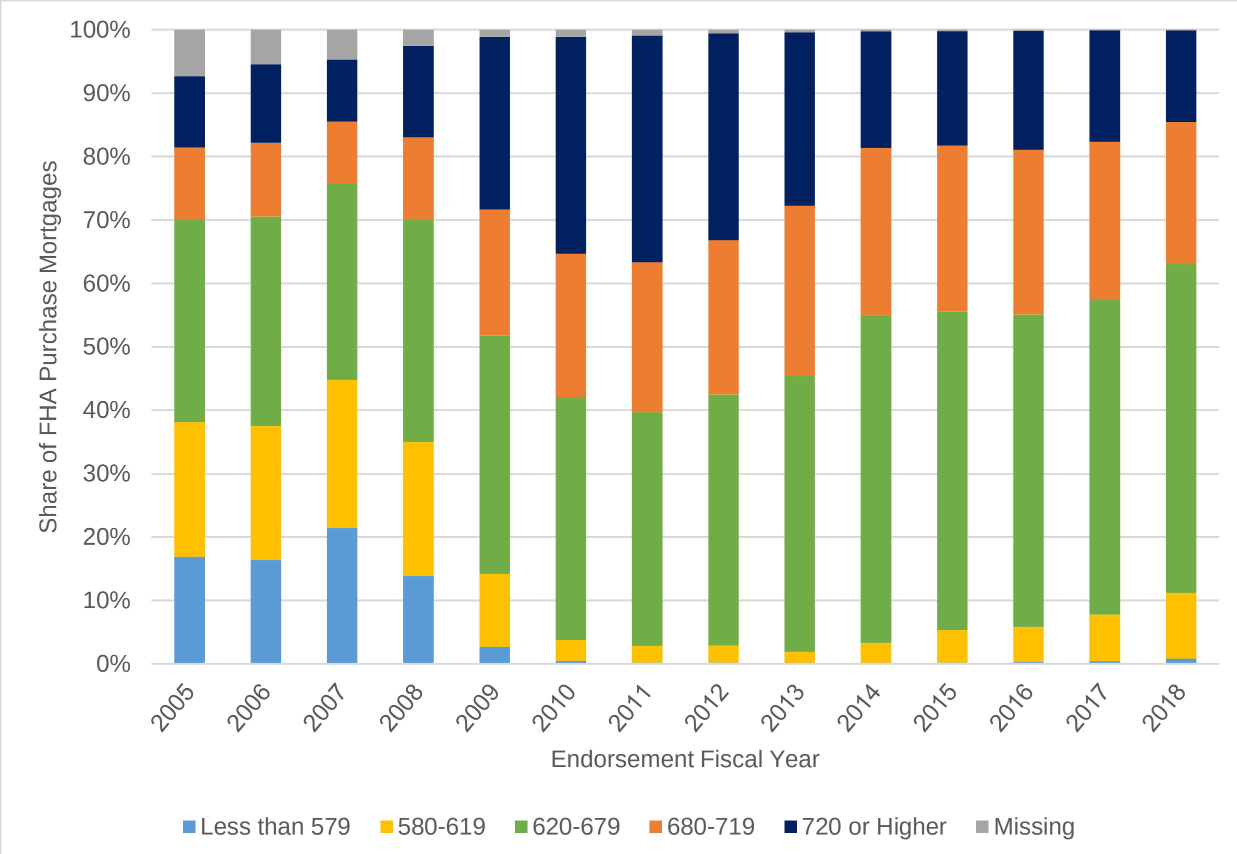
Exhibit I-8: Average Borrower Credit Score for FHA Endorsed Mortgages: Lowest Credit Score Levels Since 2008



NOTE: Borrower credit score data was not collected prior to 2005.
Borrower credit score data does not include Streamline Refinance mortgages.
SOURCE: U.S. Department of HUD/FHA, October 2018
Refer to data table B-7 in Appendix B.

Credit score is an indicator of mortgage credit risk. As reflected in Exhibit I-8, 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 2018 was 670, decreasing from 676 in FY 2017, and the lowest average credit score for FHA-insured mortgages since 2008. In FY 2018, the average credit scores were lower than they were in FY 2017 for purchase transactions, Conventional-to-FHA refinance transactions, and FHA-to-FHA refinances. FHA will continue to monitor declining credit scores for new FHA endorsements for the risk they pose to the MMIF.

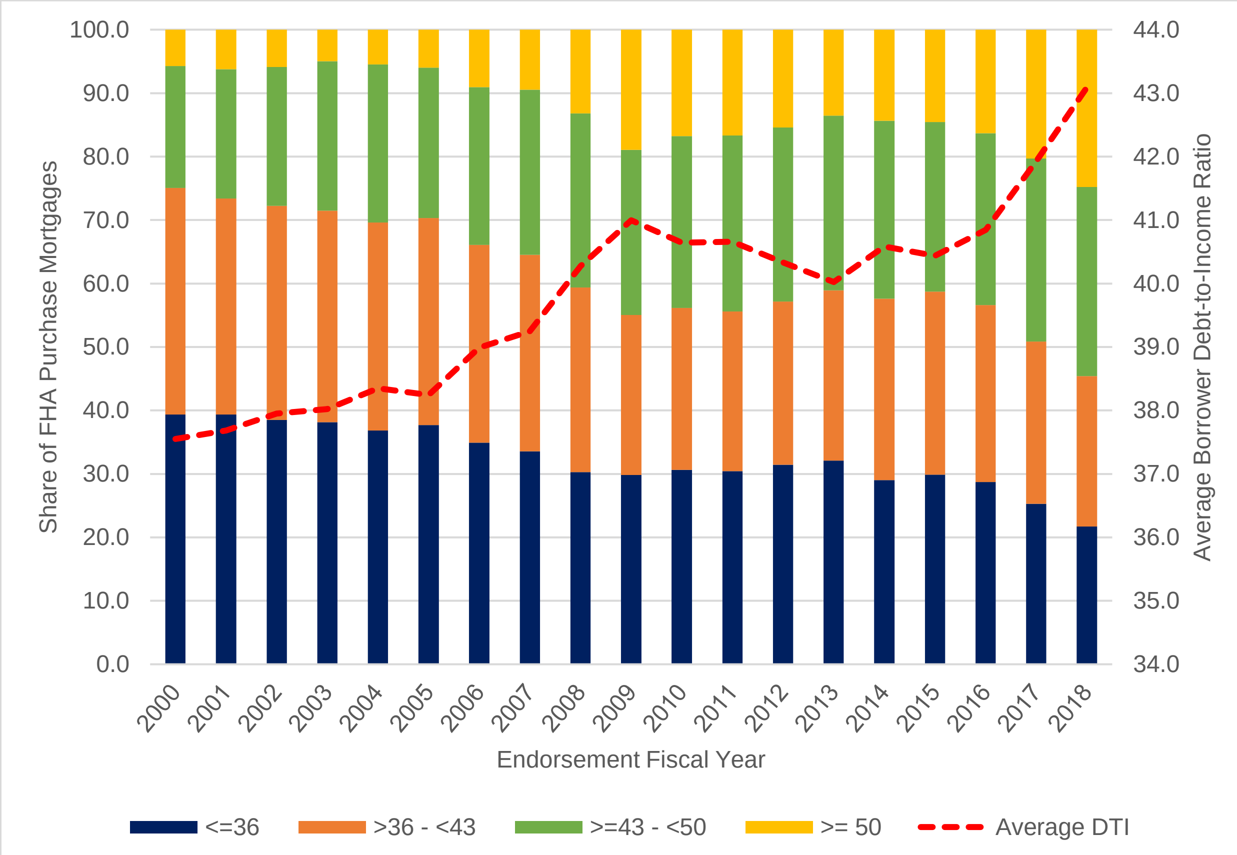
Exhibit I-9: Distribution of FHA Borrower Credit Score by Fiscal Year: Increase in Percentage of Credit Scores Below 620



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 2018.
Refer to data table B-8 in Appendix B.

Exhibit I-9 reflects 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 11.21 percent of endorsements in FY 2018. The share of endorsements with credit scores between 620 and 679 also increased from 49.73 percent in FY 2017 to 51.79 percent in FY 2018. The share of endorsements on mortgages with credit scores of 720 or higher decreased from 17.51 percent in FY 2017 to 14.40 percent in FY 2018.

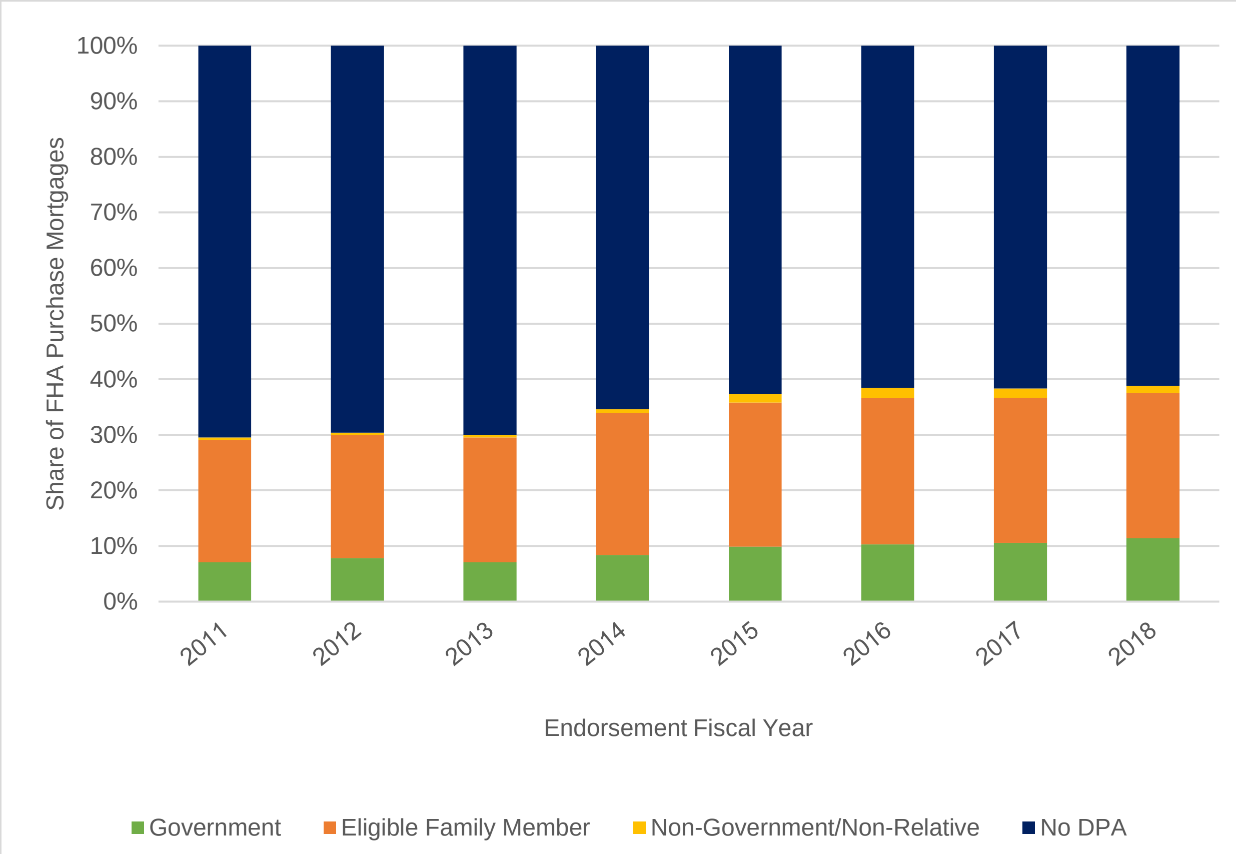
Exhibit I-10: Borrower Debt-to-Income (DTI) Ratio for FHA Purchase Mortgages: Highest Average DTI Ratios Since FY 2000



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-9 in appendix B.

The average debt-to-income (DTI) ratio for borrowers with FHA-insured purchase mortgages continues to rise, with an average DTI ratio of 43.09 percent in FY 2018. The proportion of borrowers with DTI ratios above 50 percent in FY 2018 was at 24.80 percent – an all-time high since FY 2000. The percentage of borrowers with DTI ratios greater than 43 percent rose to 54.60 percent in FY 2018 from 49.12 percent in FY 2017.

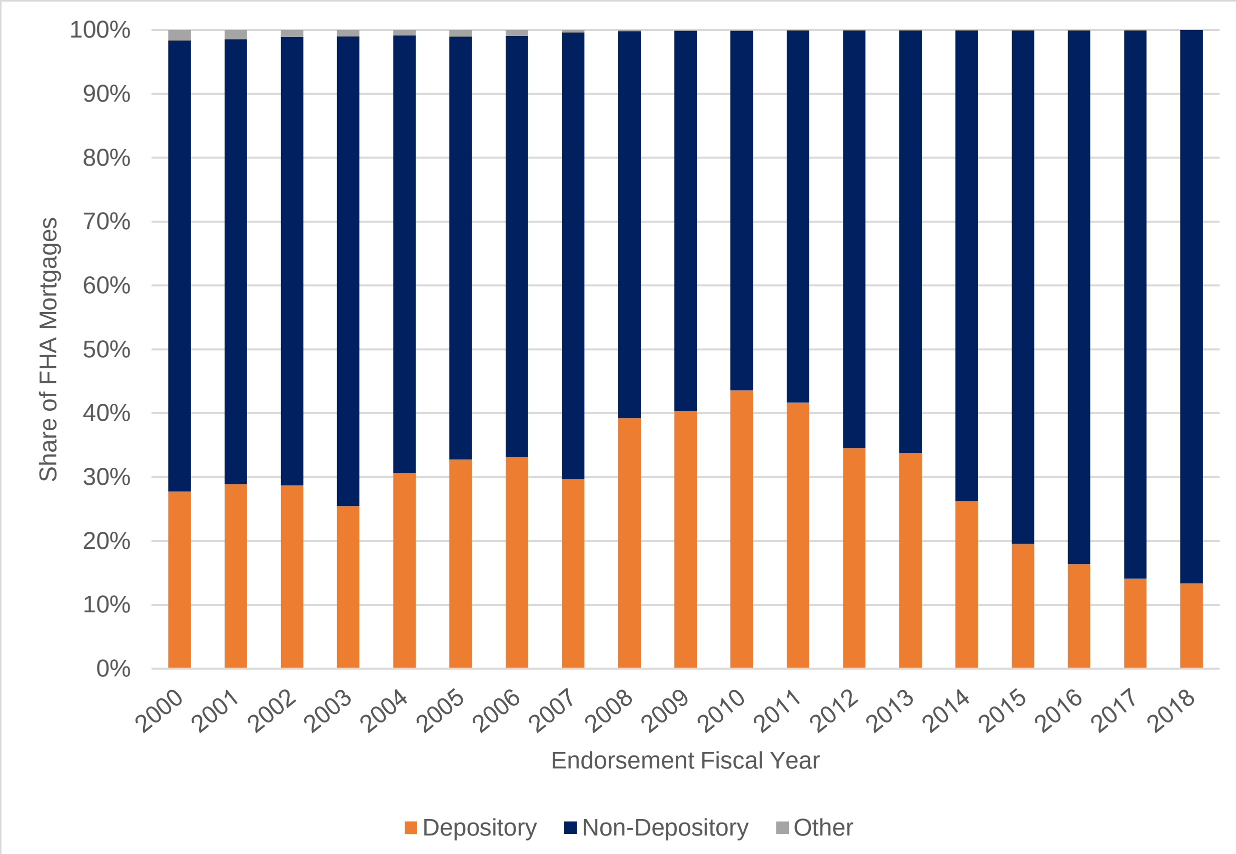
Exhibit I-11: FHA Purchase Activity by Type of Downpayment Assistance (DPA)



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 2018.
Refer to data table B-10 in Appendix B.

FHA insures mortgages where the borrower obtains downpayment assistance funds from an eligible source, including, from a governmental entity or from an eligible family member. As Exhibit I-11 shows, gift funds obtained from an eligible family member were the largest source of downpayment assistance used by borrowers with FHA-insured downpayment assistance mortgages (DPA mortgages), representing 26.16 percent of FHA's total Forward mortgage purchase volume in FY 2018. The second largest source of downpayment assistance funds came from governmental entities, representing 11.39 percent of FY 2018 endorsements. 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. Combined, 37.55 percent of all purchase mortgages included downpayment assistance in FY 2018.

Exhibit I-12: Lender Type for FHA Endorsement Activity

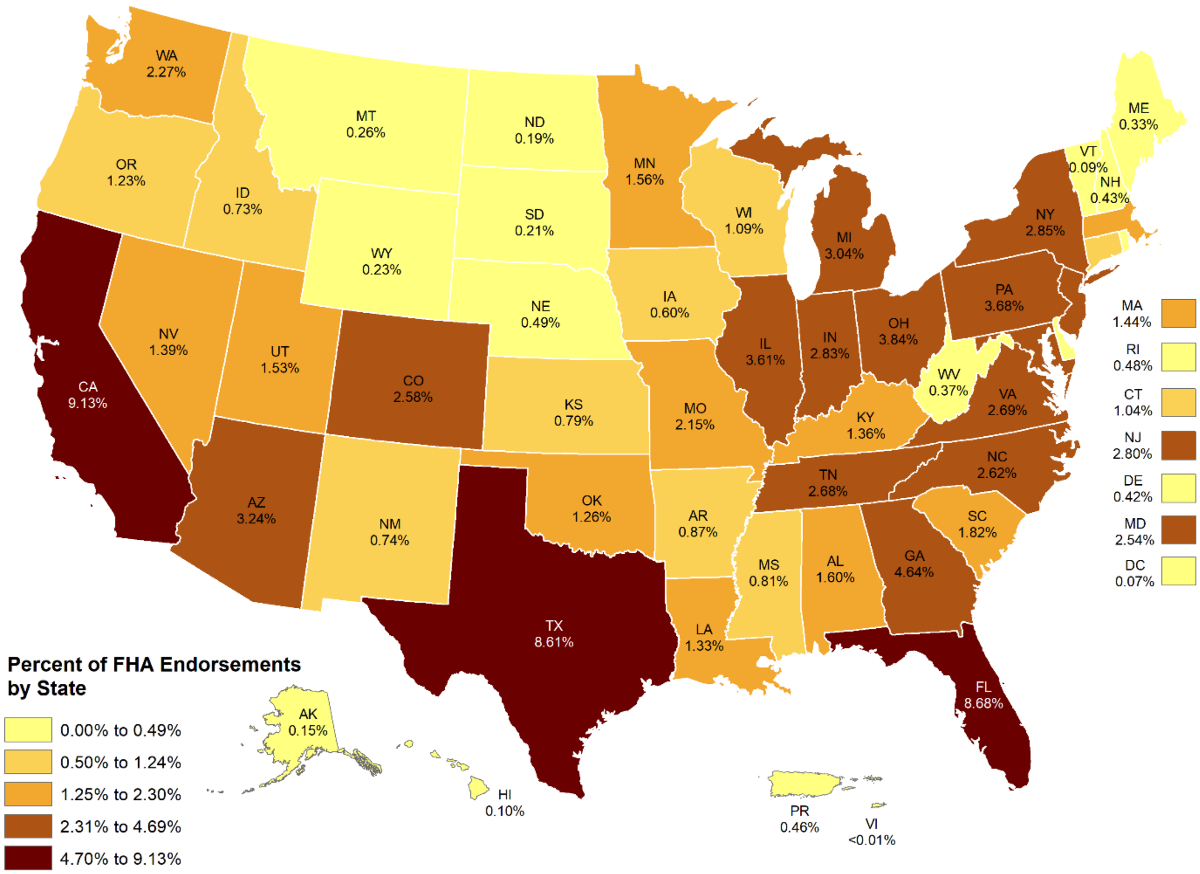


NOTE: This table does not include Streamline refinance mortgages.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-11 in Appendix B.

The compositon of FHA's new endorsements by lender type as described in Exhibit I-12 has been changing over the last eight years. In FY 2018, non-depository lenders originated mortgages representing 86.55 percent of FHA endorsements, up from 56.27 percent in FY 2010. Over the same period, the share of endorsements originated by depository lenders decreased steadily from its peak of 43.58 percent in FY 2010 to 13.35 percent in FY 2018. Depository institutions have decreased their FHA participation for a number of reasons, including perceived enforcement risk.

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. FHA believes it needs to strike a better balance in doing business with non-depository versus depository lenders.

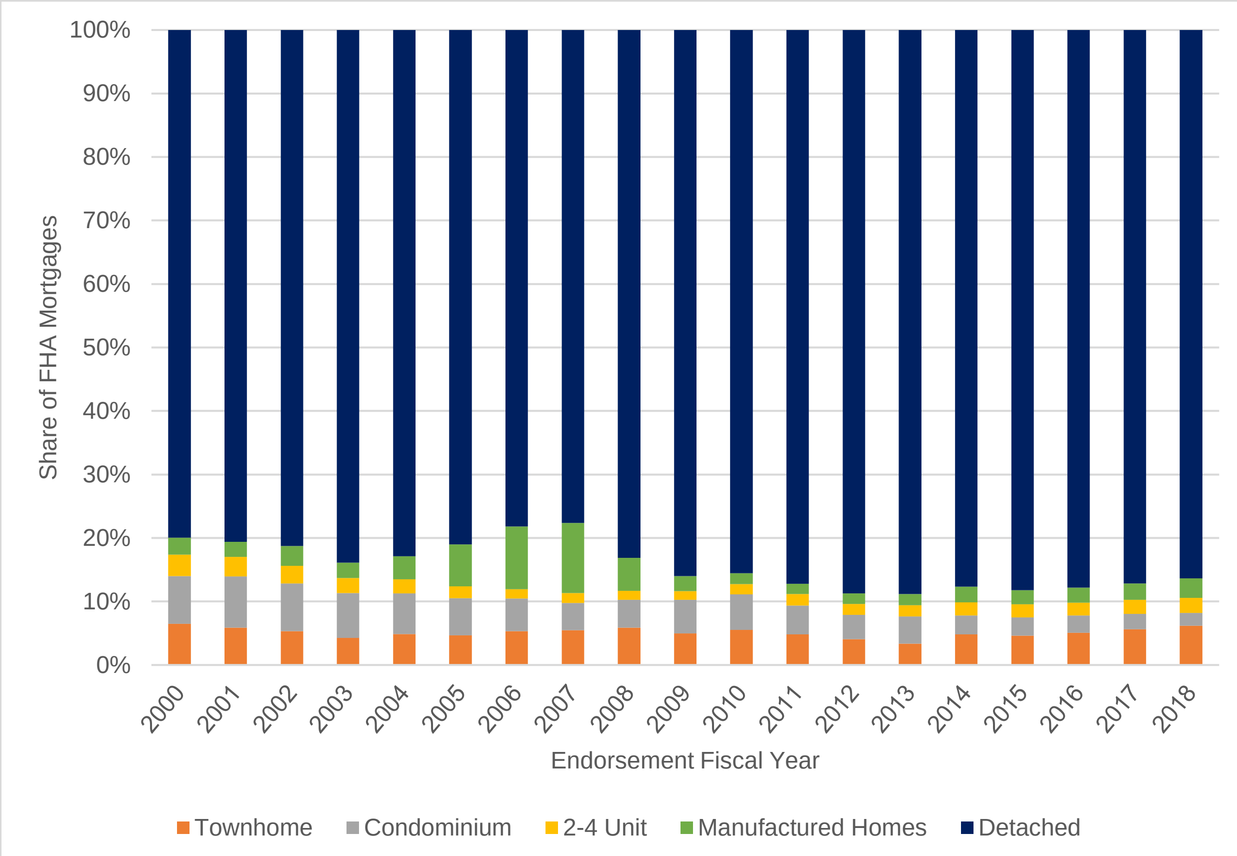
Exhibit I-13: FY 2018 FHA Forward Endorsement Concentration by State



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-12 in Appendix B.

Exhibit I-13 shows the percentage of FY 2018 endorsements by state. The three most populous states—California, Texas, and Florida—are also the states that had the greatest counts of FHA-insured mortgage endorsements in FY 2018, totaling 26.42 percent of Forward endorsements. Additionally, over half of all Forward endorsements – 51.32 percent – were concentrated in just ten states. 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 the concentration of FHA business.

Exhibit I-14: FHA Endorsement Activity by Property Type



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-13 in Appendix B.

FHA mortgages can be secured by a variety of single family property types. The majority of FHA's FY 2018 new business was secured by single family detached housing. Other types of single family housing are important sources of affordable housing. The volume of FHA-insured mortgages secured by manufactured homes titled as real estate continues to represent a small portion of the overall Forward mortgage new business since reaching a peak of 11.04 percent in FY 2007. In FY 2018, 3.08 percent of FHA-insured mortgages were secured by manufactured homes. Similarly, mortgages for condominium units historically have represented a small percentage of new endorsements.

In FY 2018, mortgages for condominium units represented 2.03 percent of FHA's insurance volume. FHA issued a proposed rule in 2016 to codify its requirements for approval of condominium projects in accordance with the requirements of the Housing and Economic Recovery Act of 2008 and the Housing Opportunity Through Modernization Act of 2016. FHA is preparing to issue a final rule to improve access to FHA-insured financing for condominiums while simultaneously managing risk to the MMIF.

Forward Mortgage Program: Portfolio Overview and Performance Trends

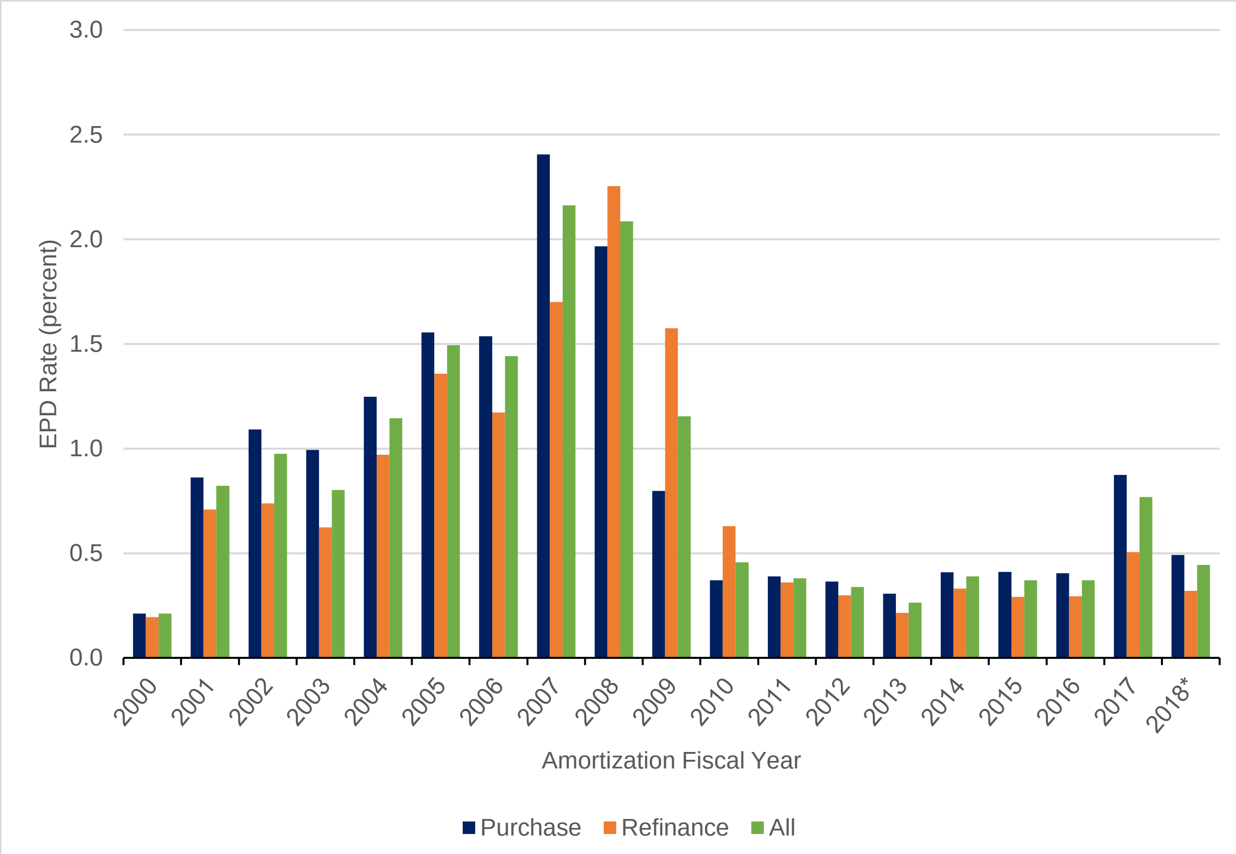
Exhibit I-15: Insurance-in-Force, UPB, and SDQ by Vintage as of September 30, 2018

Endorsement Fiscal Year	Insurance-in-Force				Seriously Delinquent	
	Counts	IIF Share (Percent)	UPB ($ millions)	UPB Share (Percent)	Counts	Rate (Counts)
Pre-2004	564,187	7.01	26,324	2.20	37,820	6.70
2004	150,077	1.86	10,738	0.90	10,289	6.86
2005	110,178	1.37	8,506	0.71	8,690	7.89
2006	86,743	1.08	7,547	0.63	8,545	9.85
2007	82,389	1.02	8,116	0.68	10,343	12.55
2008	194,739	2.42	22,348	1.87	24,333	12.50
2009	423,343	5.26	53,124	4.44	32,799	7.75
2010	542,743	6.74	67,828	5.67	28,639	5.28
2011	437,900	5.44	56,874	4.75	18,927	4.32
2012	538,287	6.69	72,451	6.06	19,090	3.55
2013	748,890	9.30	106,937	8.94	22,494	3.00
2014	364,459	4.53	47,080	3.94	18,340	5.03
2015	689,278	8.56	111,593	9.33	27,609	4.01
2016	988,646	12.28	176,098	14.72	31,814	3.22
2017	1,126,021	13.99	216,781	18.12	26,500	2.35
2018	1,000,759	12.43	203,955	17.05	4,943	0.49
Total	8,048,639	100	1,196,301	100	331,175	4.11

NOTE: These mortgage counts and balances are active as of September 30, 2018. Portfolio UPB differs slightly from IIF amounts reported in Chapter 2.
SOURCE: U.S. Department of HUD/FHA, October 2018.

Exhibit I-15 provides a breakdown of FHA IIF by vintage, including the Serious Delinquency (SDQ) rate for each cohort. As of the end of FY 2018, the FHA Forward portfolio consisted of approximately $1.19 trillion in IIF with an active mortgage count of 8,048,639, and with an overall SDQ rate of 4.11 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 develop. As such, recent cohorts will likely show increasing SDQ rates as the vintage seasons. The natural disasters of 2017 impacted both the SDQ rate and the Early Payment Default (EPD) rate. Exhibit I-20 and Exhibit I-21 provide additional details on this impact.

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



NOTE: FY 2018 data is through April 2018.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-14 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. Beginning in FY 2010, EPD rates decreased to less than half of a percent for all mortgages and remained relatively low until FY 2017. EPD rates sharply rose in FY 2017 due to the adverse impact of several natural disasters.

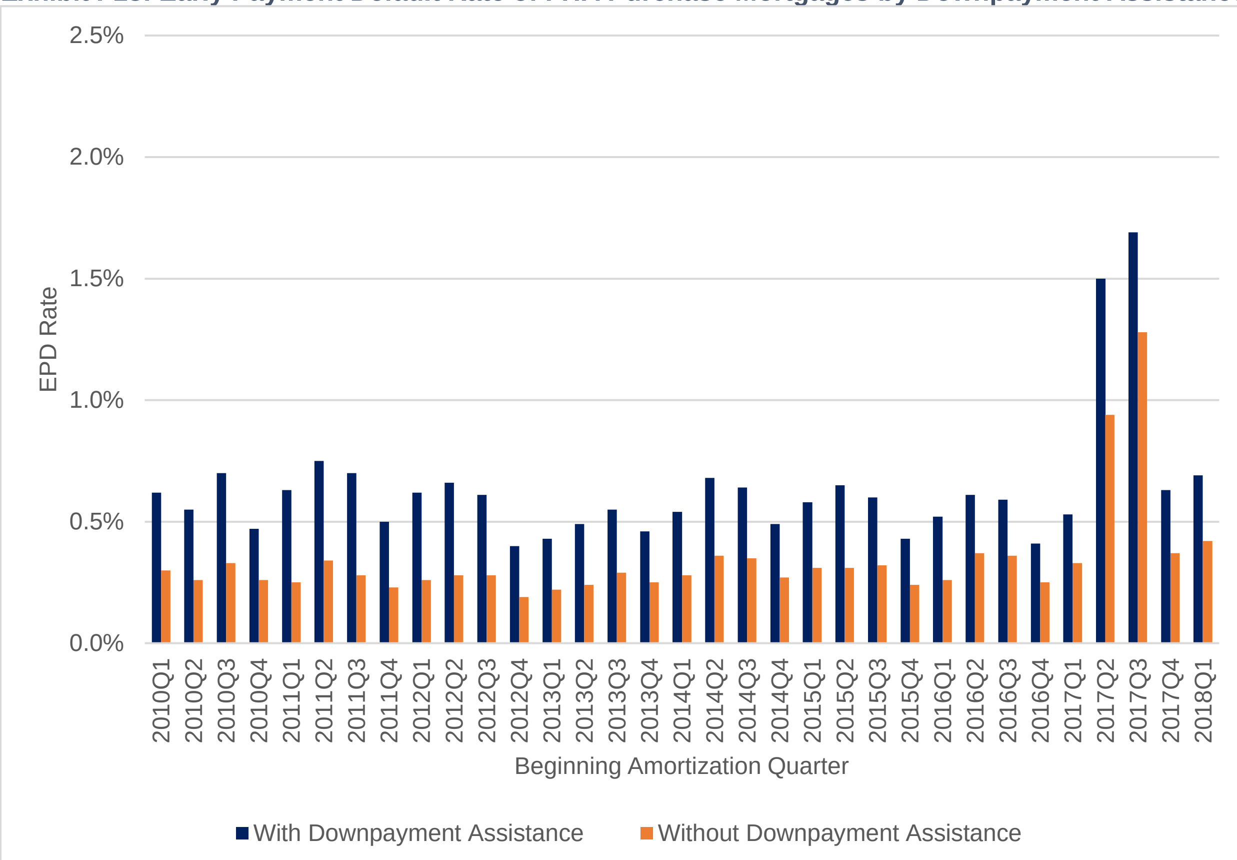
Exhibit I-17: Historical Serious Delinquency Rates for FHA Mortgages

SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-15 in Appendix B.

Exhibit I-17 shows a significant improvement in the SDQ rate after rising substantially as a result of the financial crisis and the proliferation of seller-funded DPA. FHA's SDQ rate for its Forward mortgage portfolio as of the end of FY 2018 was 4.11 percent, down from 4.32 percent at the end of FY 2017. SDQ rates spiked during FY 2018 due to the natural disasters in the fall of 2017, but by the end of the fiscal year returned to rates consistent with FY 2017 levels.

Downpayment Assistance

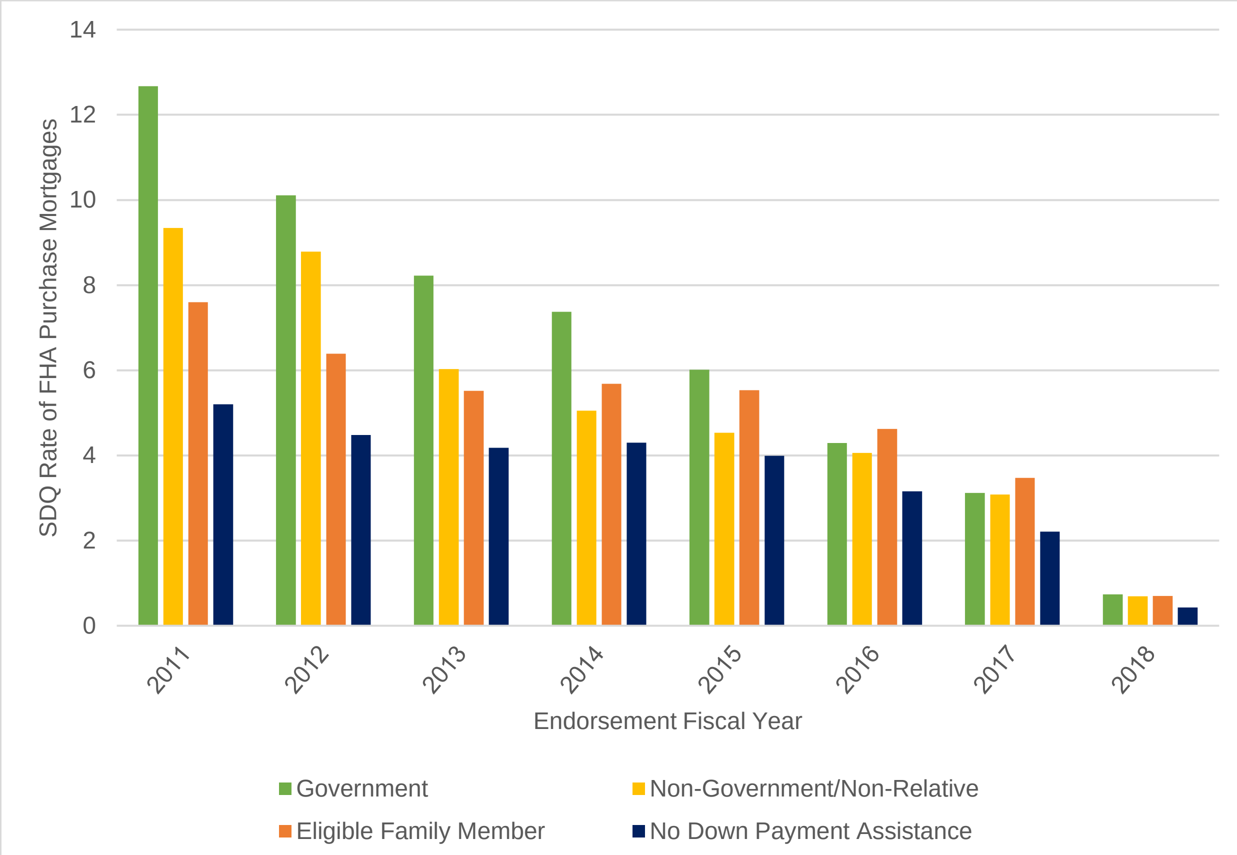
Exhibit I-18: Early Payment Default Rate of FHA Purchase Mortgages by Downpayment Assistance



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-16 in Appendix B.

Exhibit I-18 illustrates that EPD rates are higher across every quarter for DPA mortgages as compared to mortgages without DPA. The spike in EPD rates shown in Exhibit I-18 for mortgages with DPA and mortgages without DPA are attributable to the natural disasters in the fall of 2017. The fourth quarter of 2017 and first quarter of 2018 reflect a return to pre-disaster EPD rates.

Exhibit I-19: Serious Delinquency Rate of FHA Purchase Mortgages by Downpayment Assistance Type as of September 30, 2018

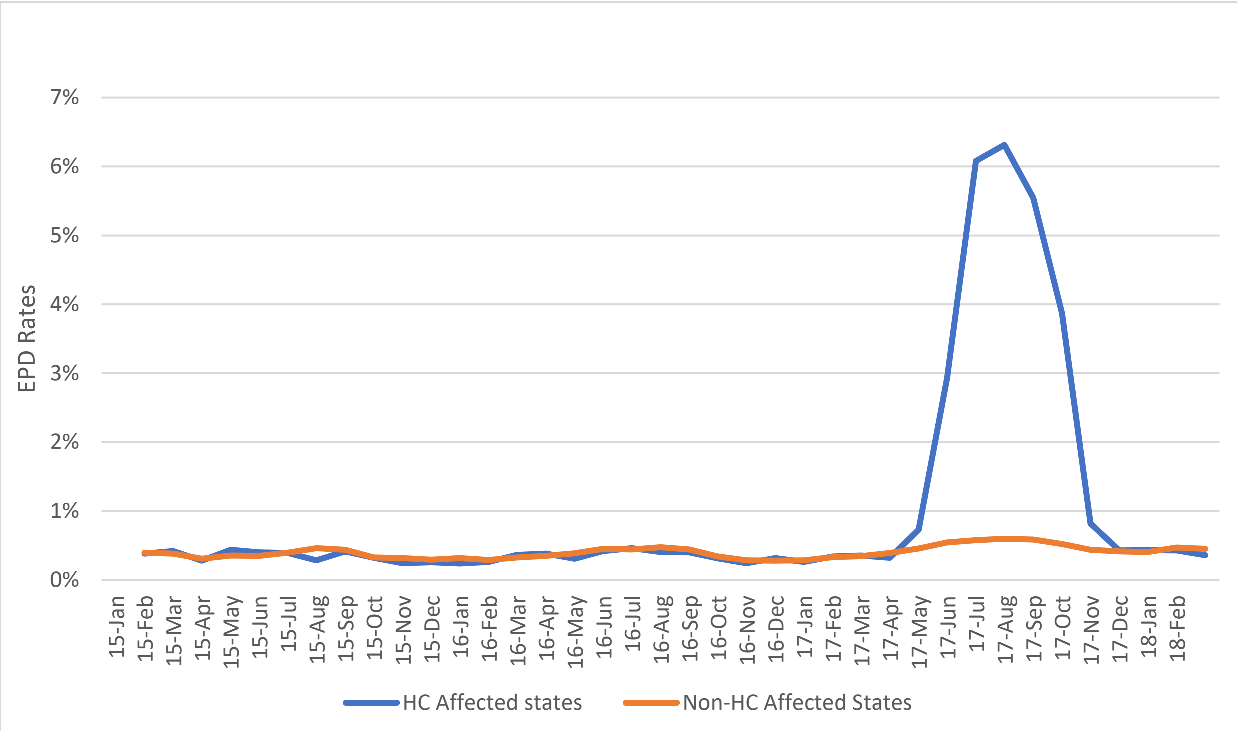


SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-17 in Appendix B.

Exhibit I-19 shows the current SDQ rate of FHA-insured purchase mortgages endorsed for FY 2011 through FY 2018 by downpayment type. SDQ rates tend to rise as mortgages season. The currently low SDQ rates for the FY 2018 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 and those without downpayment assistance. Generally, higher SDQ rates are associated with mortgages where downpayment assistance came from governmental entities.

Impact of the Hurricanes

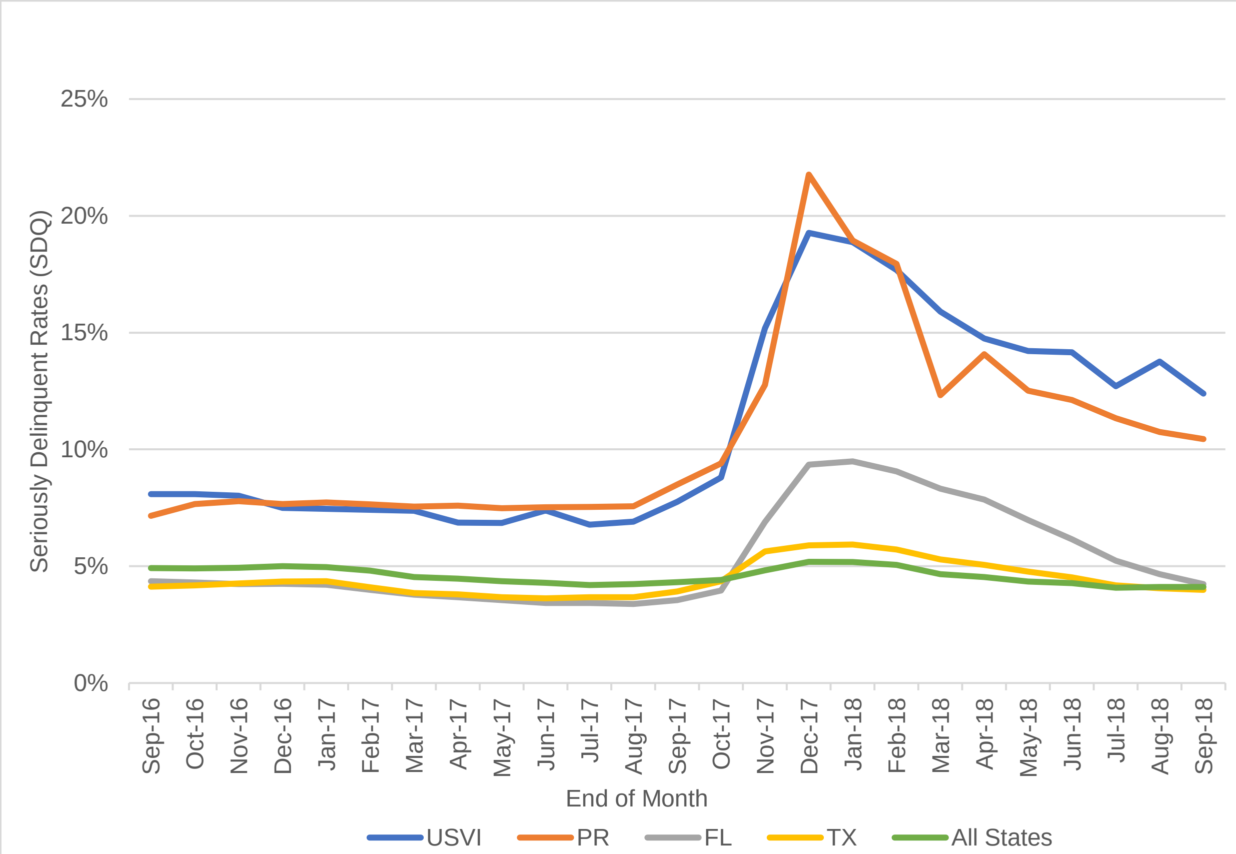
Exhibit I-20: FHA Early Payment Default Rates for Hurricane-Affected (FL, PR, USVI, and TX) and Non-Hurricane-Affected States



NOTE: FY 2018 data is through February 2018.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-18 in Appendix B.

Exhibit I-20 illustrates the effect of the 2017 hurricanes on Florida, Puerto Rico, the U.S. Virgin Islands and Texas as compared to non-affected states. Mortgages originated in the hurricane affected states and territories in July 2017 had the highest level of EPD, at 6.31 percent, as compared to 0.60 percent for non-Hurricane affected states and territories. The EPDs for mortgages in hurricane-affected states in the months following July 2017 show a steady decrease and return to previous levels by November 2017.

Exhibit I-21: Serious Delinquency Rates for Selected Hurricane-Affected States/Territories

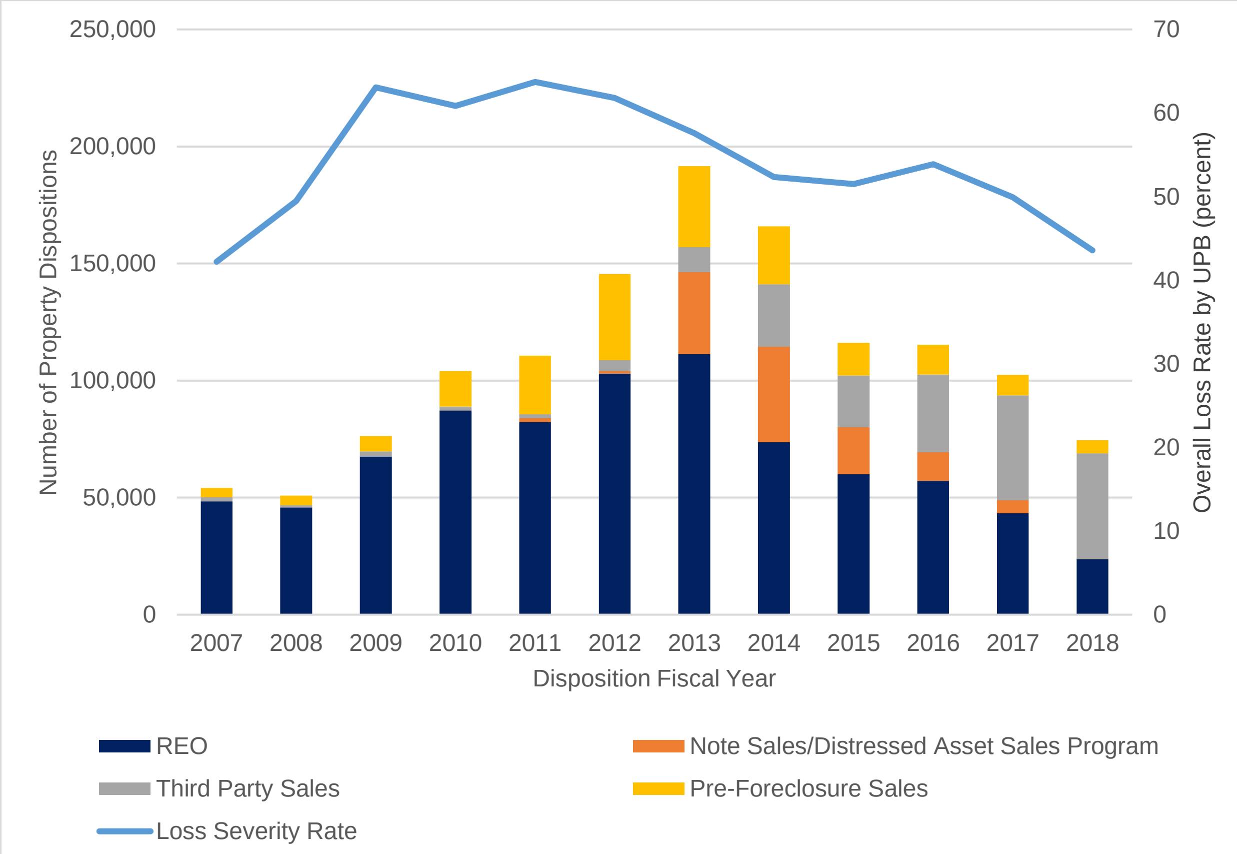


SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-19 in Appendix B.

Exhibit 1-21 reflects the SDQ rates of the U.S. Virgin Islands (USVI), Puerto Rico, Florida and Texas – the most severely impacted states and territories after the disasters in the fall of 2017.

The SDQ rates for USVI, Puerto Rico, and Texas peaked in December 2017, and peaked in Florida in January 2018. Puerto Rico had the highest increase, with an SDQ rate exceeding 21 percent in December 2017. Similarly, all hurricane-affected states and territories showed declines in SDQ rates in the months that followed. This decline is due in part to FHA's extended foreclosure moratoriums and expanded loss mitigation tools, including the availability of FHA's Disaster Standalone Partial Claim option (see Chapter 3 for a discussion of FHA's disaster loss mitigation work.)

Exhibit I-22: FHA Loss Severity and Claim Count by Disposition Strategy

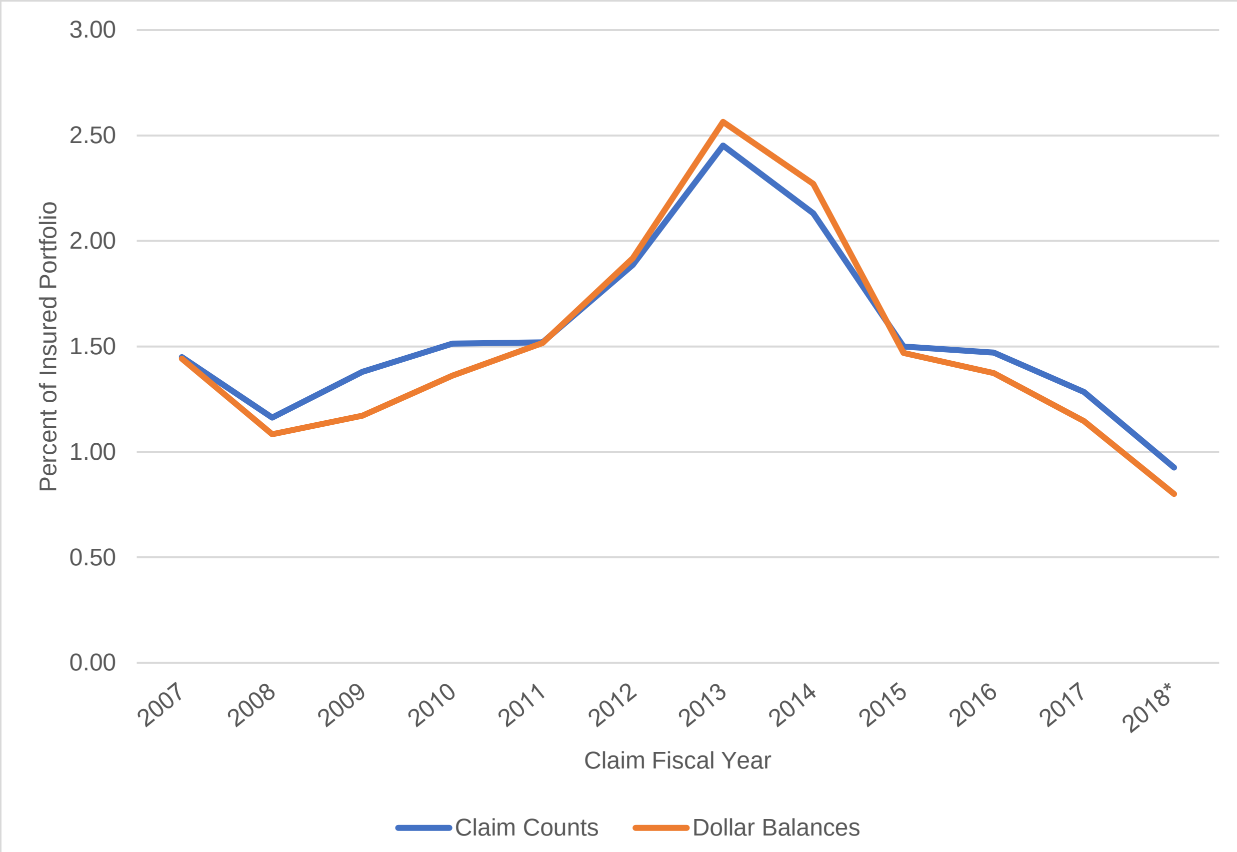


NOTE: De minimis note sales may be reflected in the table above in which final resolution may result in an alternative disposition type. Includes funds outside of MMIF and includes outbids. Due to time lag in reporting of dispositions, data as of August 31, 2018 and are therefore missing one month of comparable data to prior fiscal years.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-20 in Appendix B.

Exhibit I-22 indicates the average loss rate declined to 43.58 percent in FY 2018, down from 49.92 percent in FY 2017, and well below the highs that resulted in the wake of the housing 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; the Single Family Loan Sales (SFLS) Initiative; Third Party Sales (TPS); and Pre-foreclosure Sales (PFS). A notable trend is the continuing reduction, beginning in FY 2013, of REO dispositions versus other asset disposition options that are less costly to HUD. In FY 2018, REO sales represented 31.90 percent of asset dispositions, down from 42.29 percent in FY 2017. TPS dispositions were 60.43 percent of all dispositions in FY 2018.

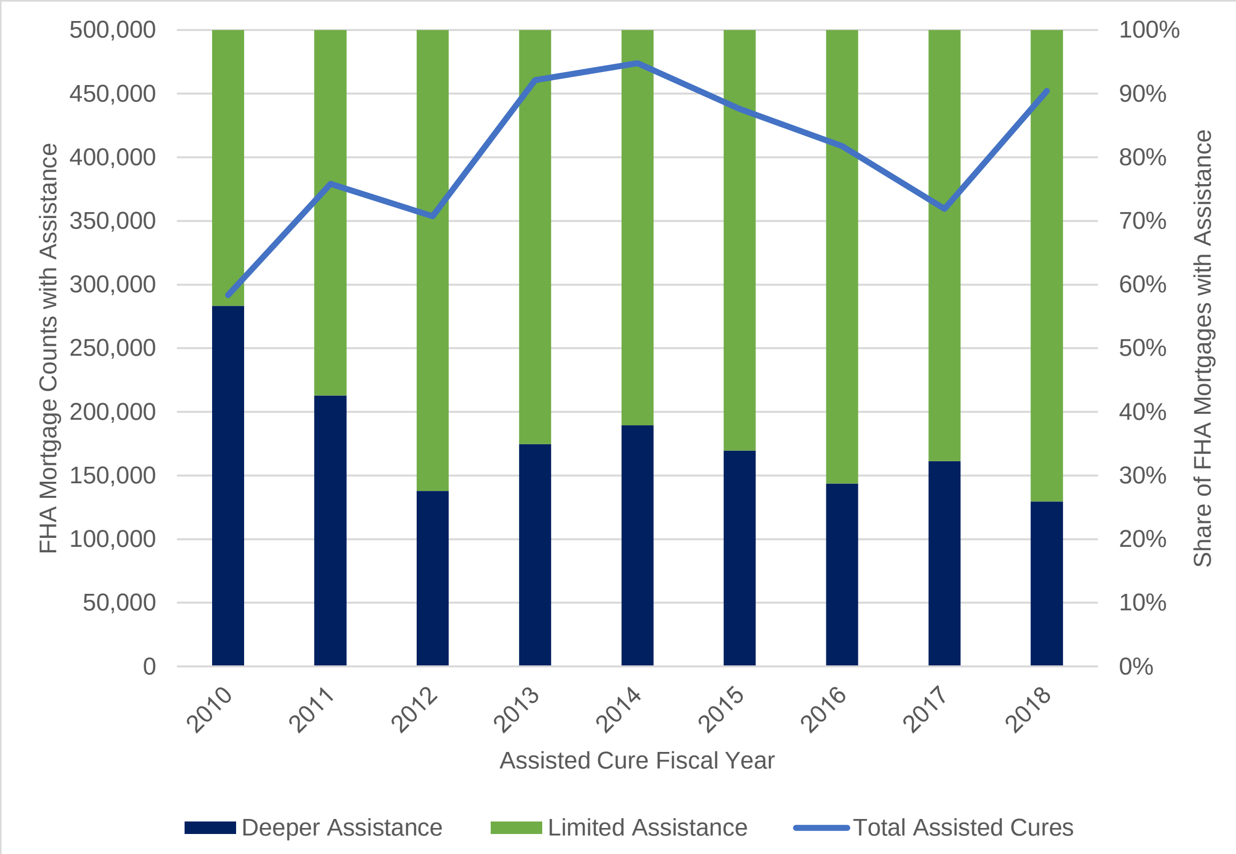
Exhibit I-23: Annual FHA Claims as a Share of Initial Insurance-in-Force (IIF)



NOTE: Includes funds outside of MMIF and includes outbids. Due to time lag in reporting of dispositions, data as of August 31, 2018 and are therefore missing one month of comparable data to prior fiscal years.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-21 in Appendix B.

Exhibit I-23 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-24: 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 2018.
Refer to data table B-22 in Appendix B.

In FY 2018, FHA-insured mortgages with assisted cures totaled 452,073, and deeper assistance cures represented 25.91 percent of all cures, a decrease of 6.37 percentage points from the FY 2017 level of 32.28 percent. The increase in assisted cures in FY 2018 is in part attributable to the 2017 natural disasters.

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-HAMP, disaster loan modifications, and disaster standalone partial claims. FHA-HAMP may include a partial claim or loan modification, or both, targeting a 20% reduction in a monthly mortgage payment. Limited assistance includes formal and informal forbearance and repayment plans.

Home Equity Conversion Mortgage (HECM) 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 Fund (GIF). 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 MMIF.

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,[38] and the interest rate charged to the borrower.[39]

The lender will calculate the amount of money that can be made available to the borrower. First, the lender determines the Maximum Claim Amount (MCA) for the HECM, which is the lesser of: the appraised value of the home[40] or the nationwide HECM maximum claim limit (currently $679,650). Next, the lender determines the appropriate Principal Limit Factor (PLF) based on the age of the youngest borrower or eligible non-borrowing spouse, and the expected applicable interest rate. The lender then multiplies the MCA by the PLF to determine what Principal Limit (PL) will be established for the HECM. This PL will grow monthly by a factor of one-twelfth of the actual interest rate for the HECM and one-twelfth of the annual Mortgage Insurance Premium.

At origination, a HECM borrower is permitted to draw up to 60 percent of the PL or some higher portion of the PL that is equal to the sum of the borrower's mandatory obligations, which include items such as outstanding debt secured by the property, plus cash to the borrower of up to 10

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[38] 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.
[39] The age of the youngest non-borrowing spouse was first introduced as a factor on August 4, 2014.
[40] In HECM for Purchase transactions, the appraised value is deemed to be the lesser of the appraised value or the sales price of the home.

percent of the PL. The borrower can select from a variety of payment options to receive funds under the HECM, including: Lines of Credit (LOC), tenure payments, term payments, Lump Sum, or a combination of the LOC with a term or tenure payment option. The borrower can change payment plans at any time, provided there are funds available under the PL. If no funds remain under the PL, the borrower cannot request additional funds. Payments under the HECM tenure plan, which essentially functions as an annuity, continue under the terms of the tenure plan regardless of the technical availability of funds under the PL.

A HECM is only required to be repaid when it becomes due and payable, which occurs when the last surviving borrower or eligible non-borrowing spouse dies or ceases to occupy the property as their principal residence, or when certain other events of default occur, including the failure to pay taxes, insurance, or property charges due on the property. Because a HECM is non-recourse, lenders and FHA can only look to the value of the property for recovery of losses. If the balance of the mortgage exceeds the appraised value of the property when the mortgage becomes due and payable and the property is sold via foreclosure or private sale, the lender is entitled to file a mortgage insurance claim with FHA.[41] All claims associated with HECMs endorsed on or after FY 2009 are paid by the MMIF.

Additionally, lenders are also permitted to file mortgage insurance claims where the balance of the HECM reaches 98 percent of the MCA. The lender will assign the HECM to the Secretary of HUD in exchange for claim payment. The Secretary will then hold and service the HECM until the HECM becomes due and payable. Since 2009, these assigned HECMs are held by the Secretary as assets of the MMIF. When a HECM held by the Secretary becomes due and payable. Several disposition strategies are then considered. Ultimately, HUD will sell the property or note and return the proceeds to the MMIF.[42]

Finally, where the borrower dies and there is an eligible non-borrowing spouse, the lender is permitted to assign the mortgage to the Secretary in exchange for claim payment. Before August 2014, HECMs did not provide protections for non-borrowing spouses; however, following litigation, HUD has made available an assignment option that allows the lender to choose to defer the due and payable status of the HECM and assign the HECM in exchange for claim payment without foreclosing the HECM.[43] HUD holds these HECMs until the period of deferral of due and payable status ends due to death, failure to reside in the property, or the failure to meet other obligations under the HECM. Because these spouses were not considered at the time the HECM was originated, the MCA and PL calculations did not consider risk characteristics of these spouses. Since August 2014, the HECM program has provided protections for non-borrowing spouses, and the risk characteristics of these individuals are factored into the origination of the HECM. The age

[41] This type of claim is referred to as a Claim Type 1.
[42] This type of claim is referred to as a Claim Type 2.
[43] This assignment claim is referred to as the Mortgagee Optional Election (MOE) Assignment, a subset of Claim Type 2.

of the youngest borrower or non-borrowing spouse now dictates the amount of principal that will be made available to the borrower throughout the duration of the HECM.

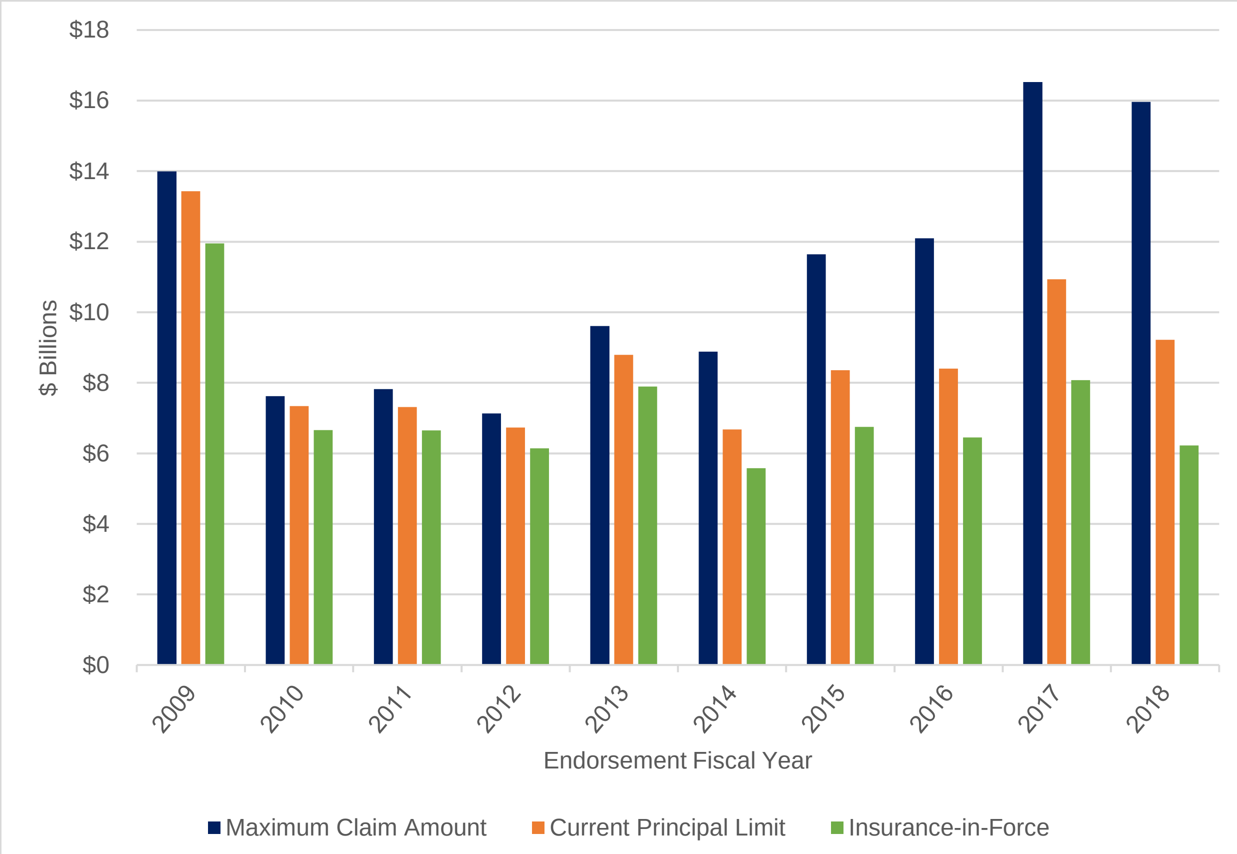
Due to the uncertainty of home prices, interest rates, appraisal bias, and other factors that impact the property value and mortgage balance, the HECM portfolio's financial performance has been historically volatile, and the transition of HECM obligations to the MMIF continues to negatively impact its performance. Net cash flow from HECM insurance operations has been increasingly negative, with all HECM books of business between FY 2009 and FY 2018 projected to lose money. 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 MMIF from favorable Forward mortgage portfolio performance. Chapter II of this Annual Report discusses the impacts of the HECM portfolio on the MMIF in more detail.

Exhibit I-25: FHA HECM Endorsement Activity

SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-23 in Appendix B.

In FY 2018, as shown in Exhibit I-25, FHA endorsed 48,327 HECMs, representing a MCA of $16.19 billion. HECM endorsement volume is 57.76 percent lower than the peak of FY 2009, and has declined by 12.60 percent over the last fiscal year.

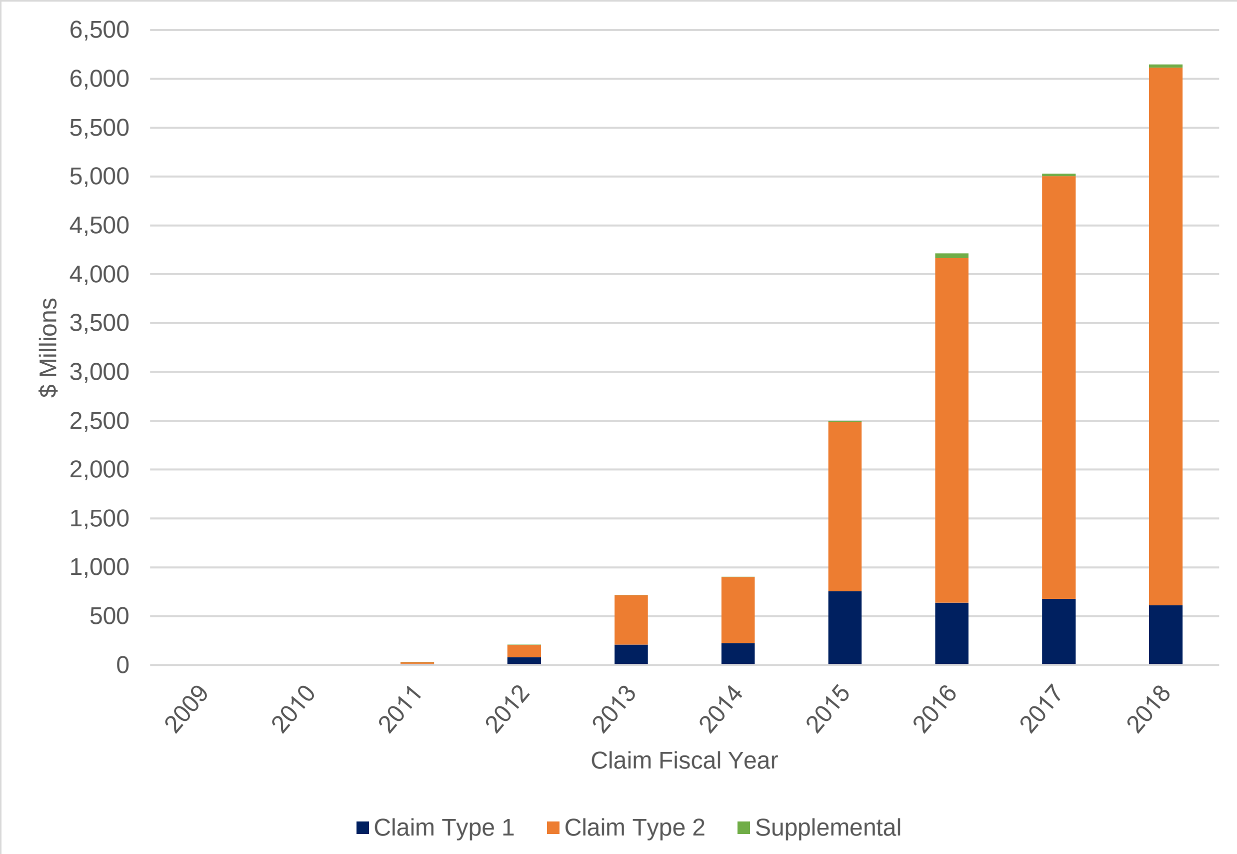
Exhibit I-26: Current HECM Portfolio by Year of Endorsement



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-24 in Appendix B.

Exhibit I-26 provides a breakdown of the current HECM portfolio by vintage year. For each vintage year, the current outstanding MCA, current total PL, and current IIF are shown. As of September 30, 2018, the HECM portfolio in the MMIF represented a total MCA of $111.34 billion, a current PL of $87.13 billion, and a current IIF of $72.41 billion.

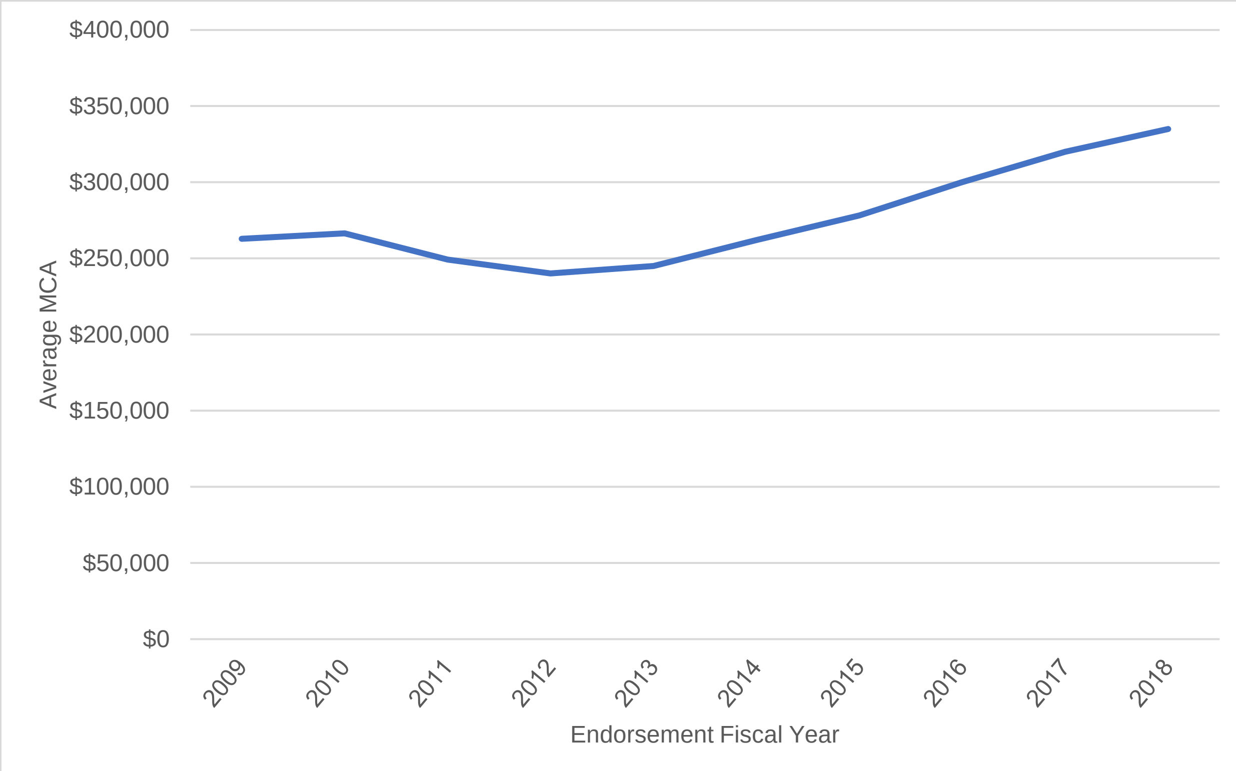
Exhibit I-29: FHA HECM Claims by Claim Type: Significant Increase for Claim Type 2



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 2018.
Refer to data table B-25 in Appendix B.

Exhibit I-27 shows the total amount and distribution of HECM claims by claim type. In FY 2018, claims totaled $5.69 billion, up from $5.00 billion in FY 2017. 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 the borrower leaves behind an eligible non-borrowing spouse. The MOE, which may be offered at the election of an FHA-approved servicer, refers to a program in which HUD pays the insurance claim but 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.

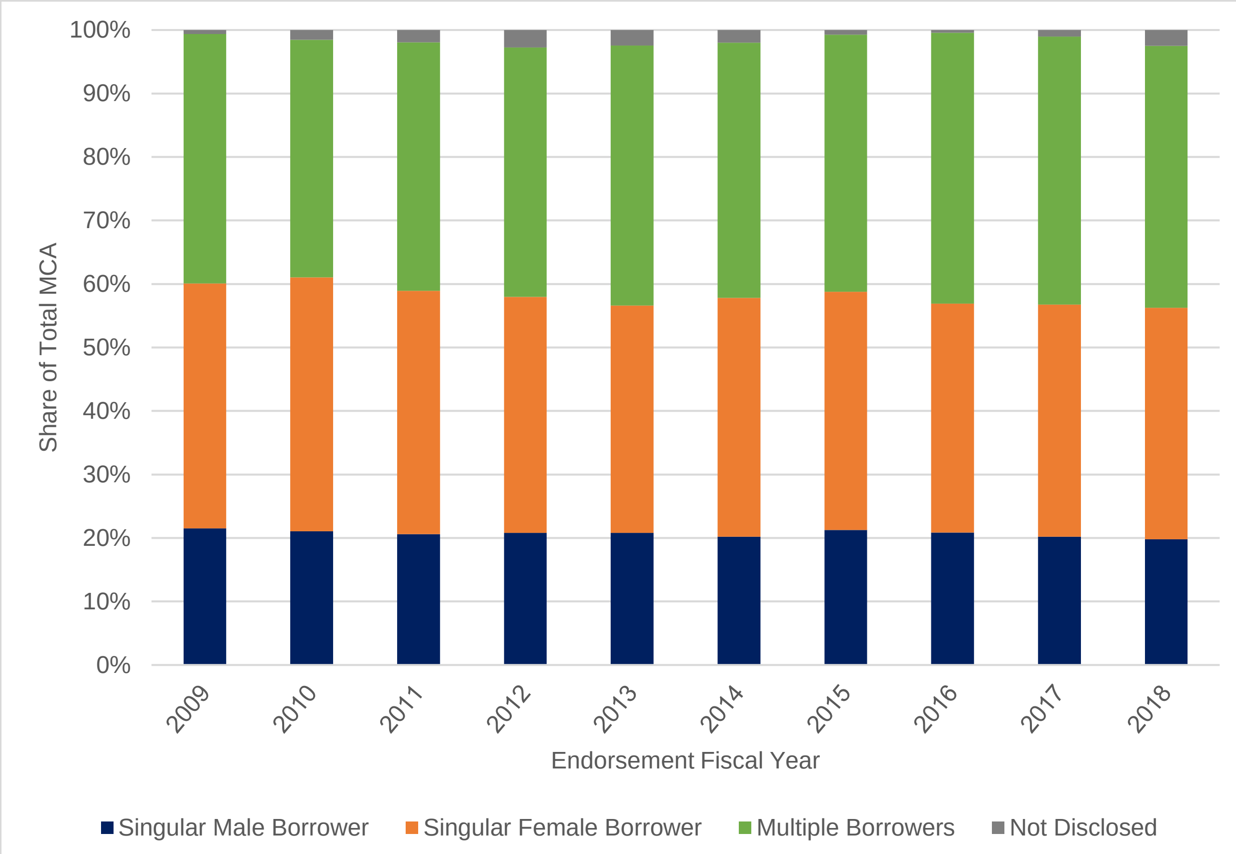
Exhibit I-28: Average Maximum Claim Amount (MCA) for FHA Endorsed HECMs



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-26 in Appendix B.

As shown in Exhibit I-28, the average MCA per HECM endorsement has continued to rise since FY 2013, increasing to $334,989 in FY 2018. Rising average MCAs coincide with the increasing health of the housing market, leading to higher appraised values on homes occupied by HECM borrowers. The current FHA Mortgage Limit for HECMs in FY 2018 was $679,650. 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.

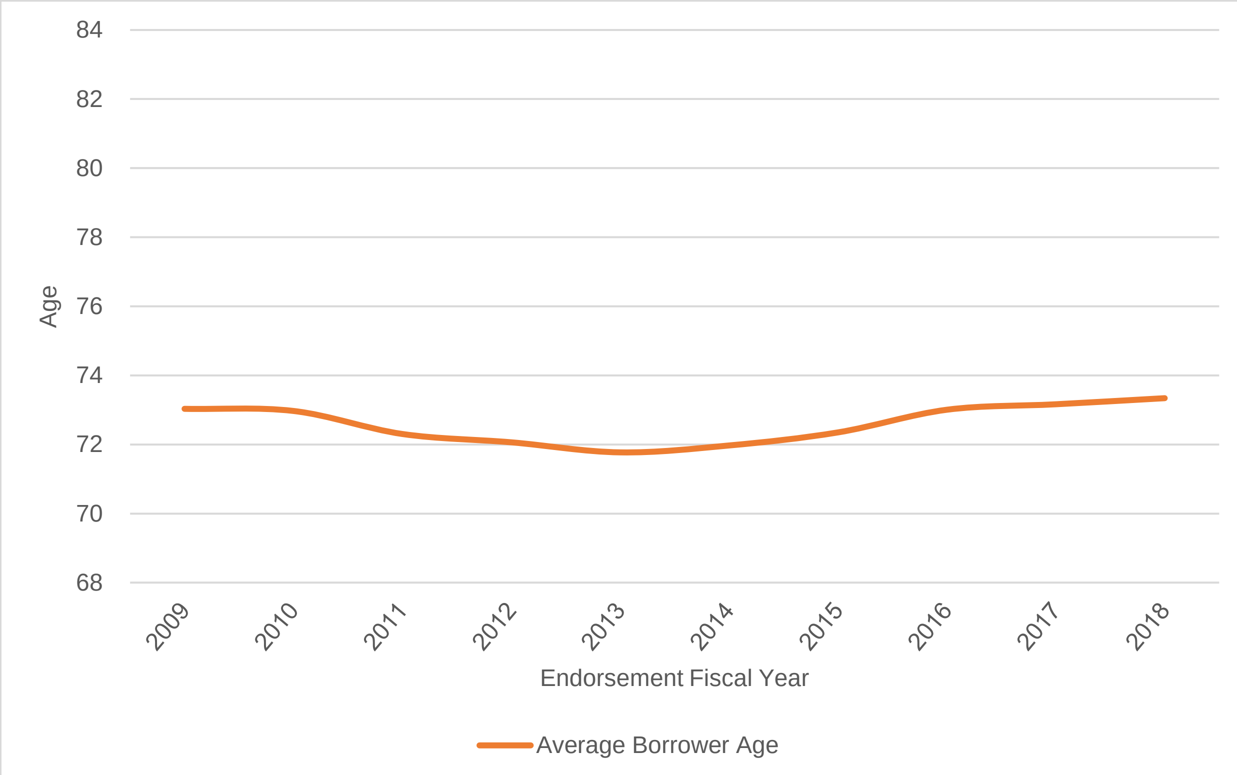
Exhibit I-29: Composition of FHA HECM Borrowers



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-27 in Appendix B.

Exhibit I-29 illustrates the share of HECM endorsement aggregate MCA by borrower composition. In FY 2018, 36.44 percent of HECM aggregate MCA served singular female borrowers, 19.80 percent served singular male borrowers, and 41.24 percent served multiple borrowers. The composition of HECM borrowers has remained relatively consistent since FY 2009.

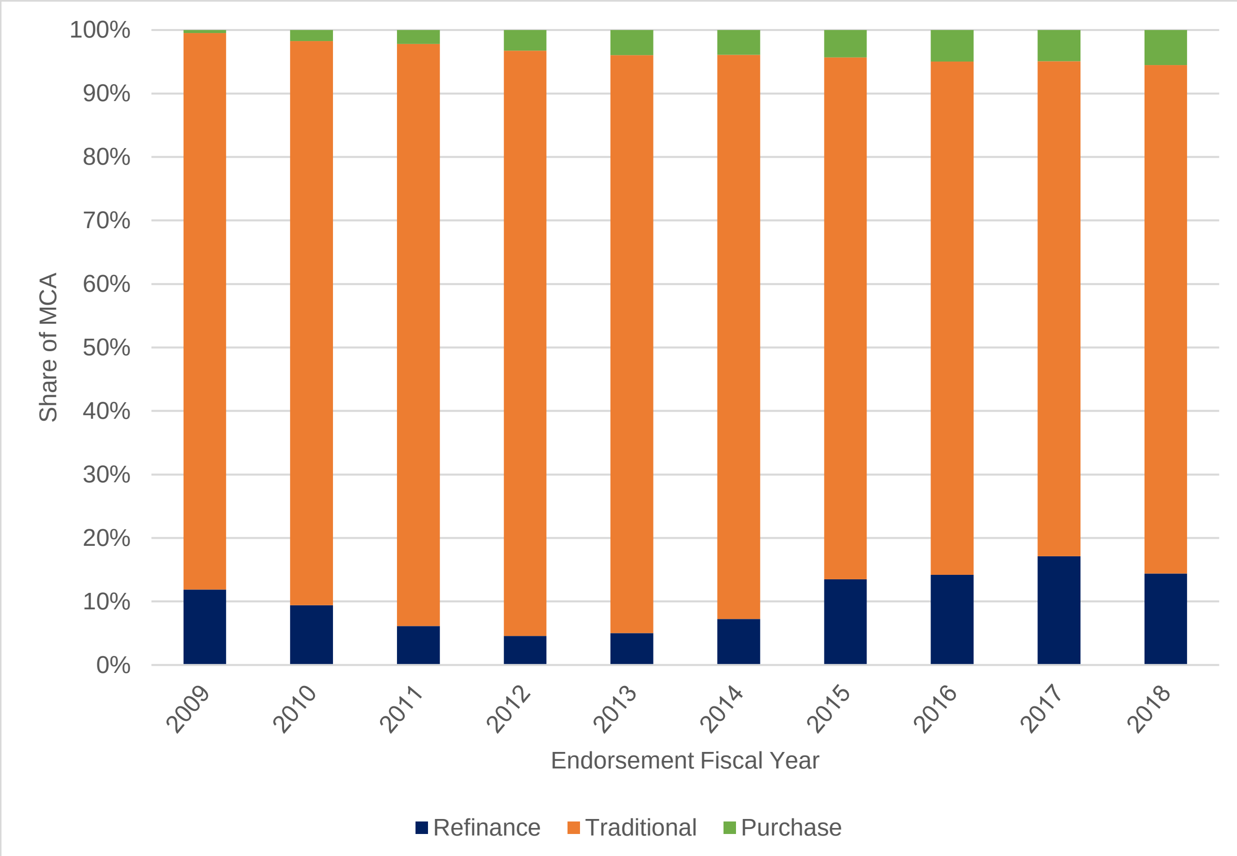
Exhibit I-30: Average Borrower Age at Endorsement of FHA HECMs



NOTE: The FY 2017 Annual Report used current age of HECM borrower, whereas the FY 2018 Annual Report uses age of borrower at time of endorsement.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-28 in Appendix B.

Exhibit I-30 above shows the trend in the average age of HECM borrowers, which has been relatively stable. In FY 2018, the average borrower age increased slightly to 73.34 years from 73.16 years in FY 2017.

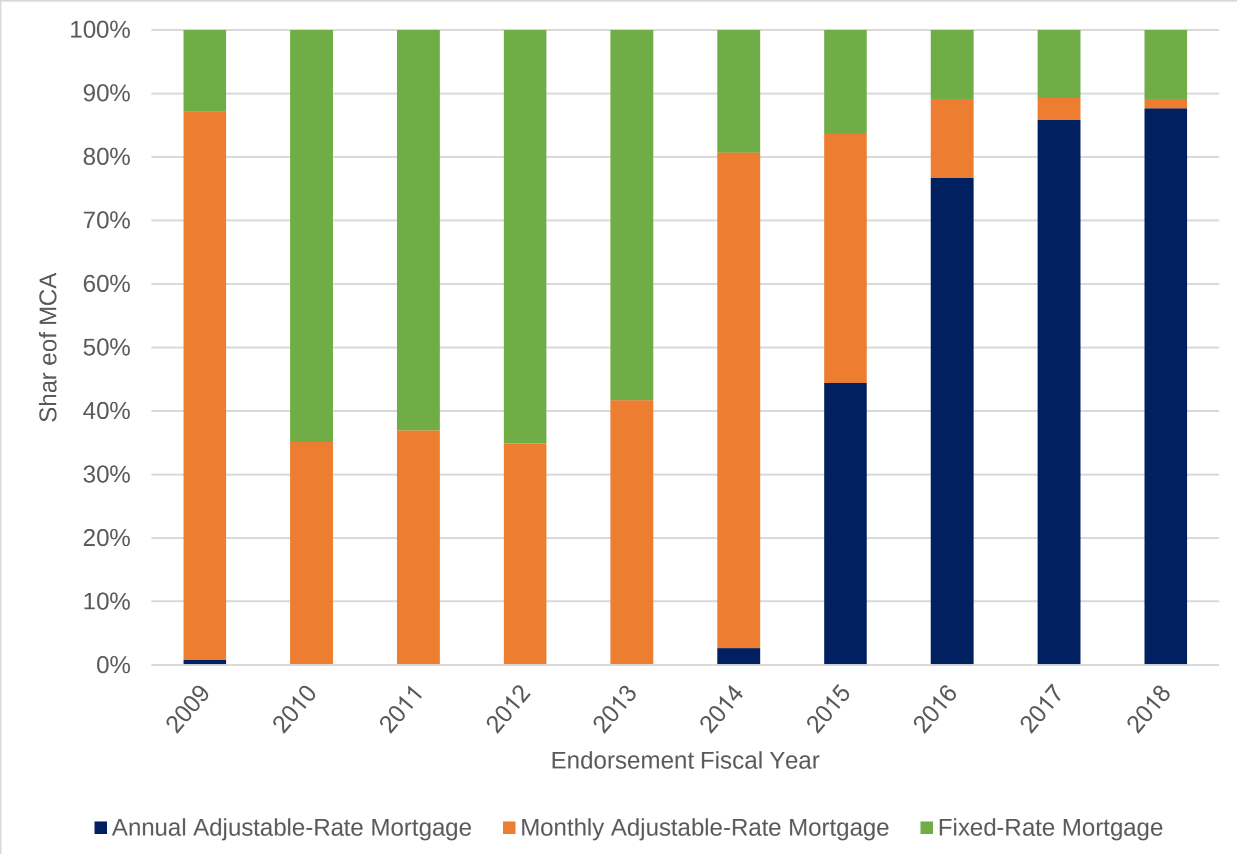
Exhibit I-31: FHA HECM Endorsement Activity by Mortgage Purpose



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-29 in Appendix B.

As shown in Exhibit I-31, the MCA share for HECM purchase mortgages grew significantly from 0.47 percent in FY 2009 to 5.52 percent in FY 2018. Moreover, the share of HECM MCA for refinance transactions has more than tripled since FY 2012, rising from 4.57 percent to 14.39 percent in FY 2018. This was, however, a decrease from the FY 2017 level of 17.11 percent. The decrease is a result of revised PLFs reducing the attractiveness of refinancing.

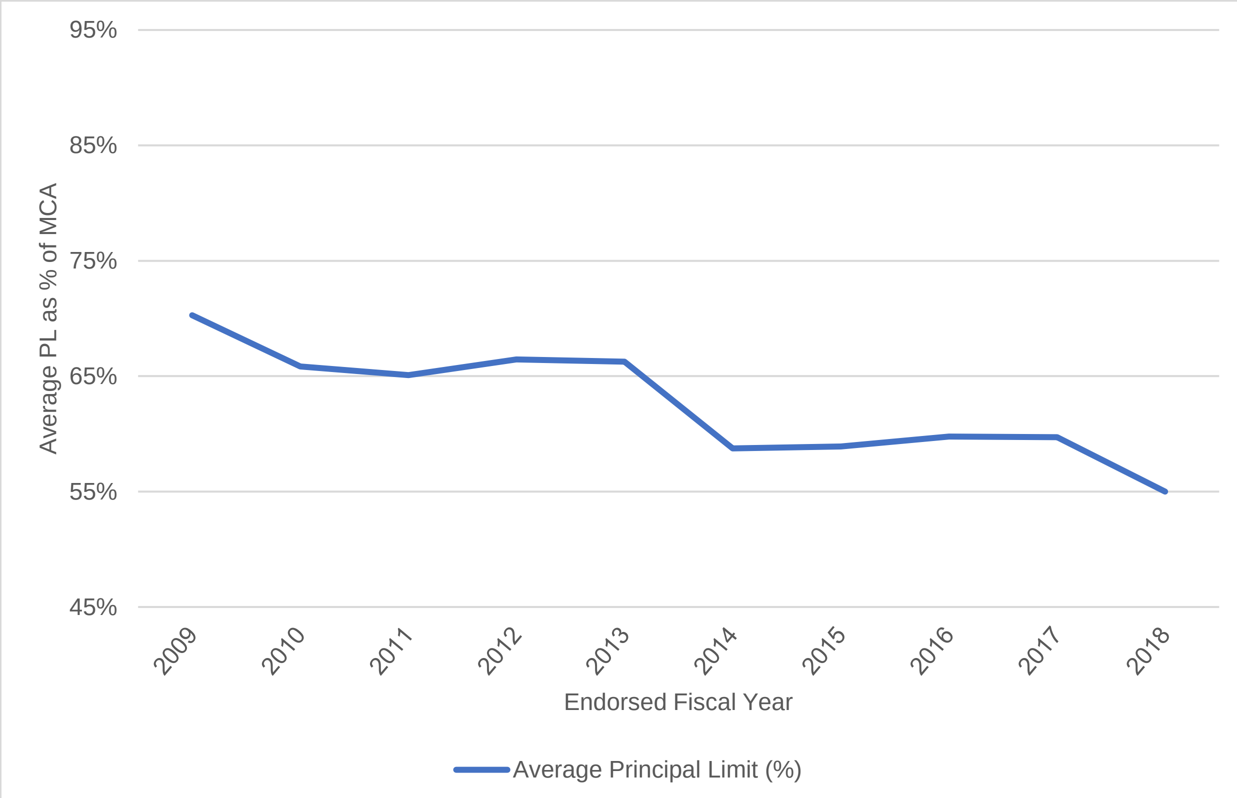
Exhibit I-32: FHA HECM Endorsement Activity by Mortgage Type Option



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-30 in Appendix B.

Exhibit I-32 illustrates the shift from fixed-rate HECMs to adjustable-rate HECMs since FY 2013. In FY 2018, 89.00 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. For adjustable-rate HECMs, should interest rates increase in the future, HECM balances will compound more quickly, resulting in faster depletion of borrower equity in the home and increased potential losses to FHA. Lenders can choose to use one of two indexes for HECM adjustable-rate mortgages: the Constant Maturity Treasury Index (CMT) or London Interbank Offered Rate (LIBOR).

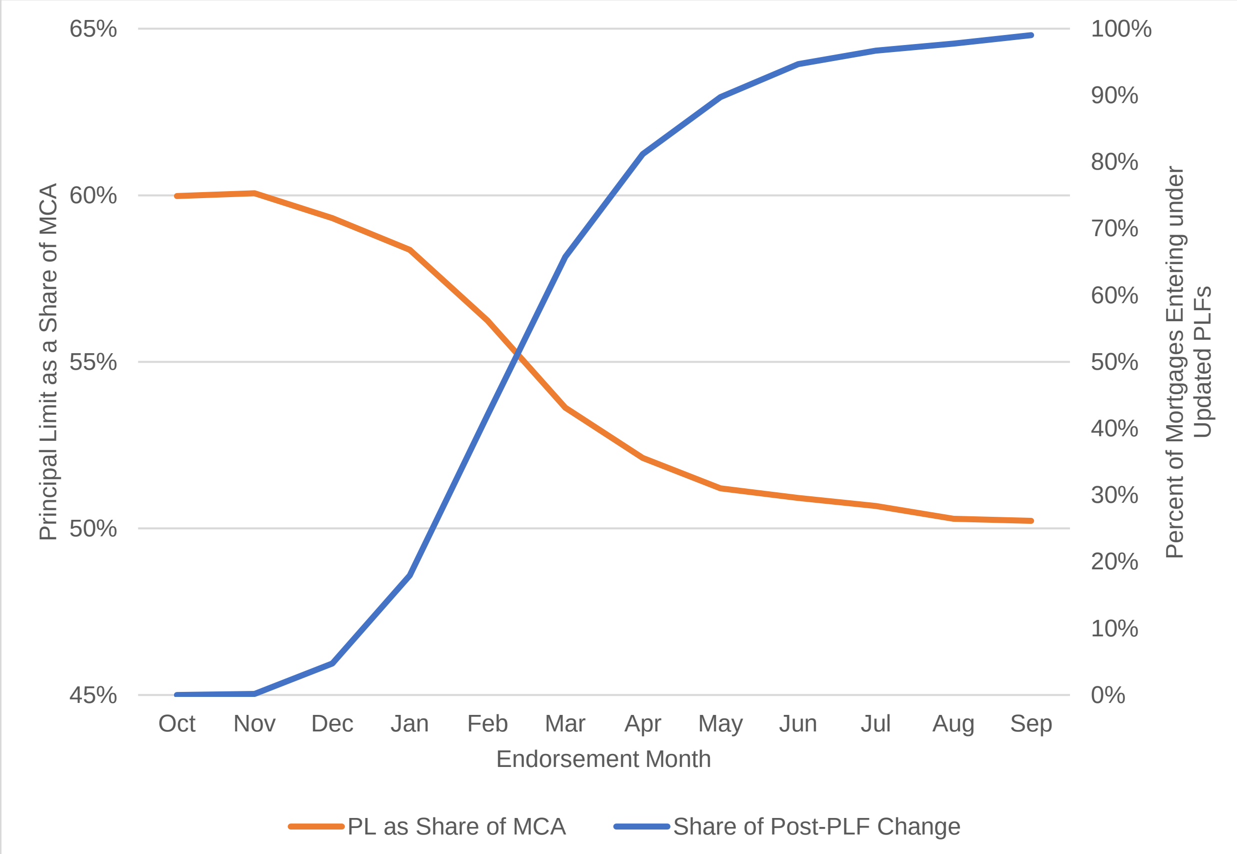
Exhibit I-33: Average Principal Limit of FHA HECMs



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-31 in Appendix B.

The average PL on a HECM in FY 2018 was 54.95 percent of the MCA, down from 59.70 percent in FY 2017. Exhibit I-33 shows a consistent average PL beginning with endorsements in FY 2014 through FY 2017, but decreasing in FY 2018. This decrease is due to new FHA policy updating PLFs effective with HECM case numbers issued on or after October 2, 2017.

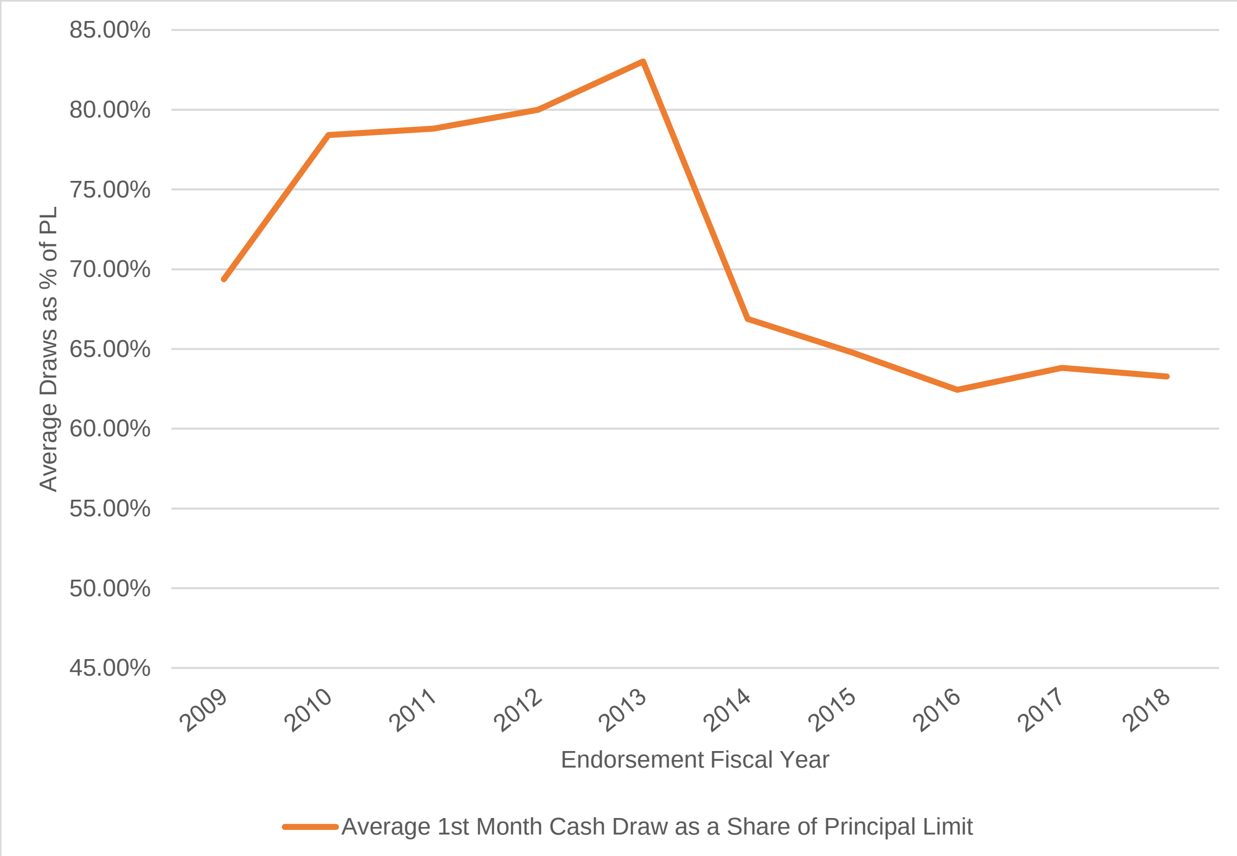
Exhibit I-34: HECM Principal Limit as a Share of MCA and Share of HECM Endorsements with PLF Revisions



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-32 in Appendix B.

In order to improve the fiscal condition of the HECM program, FHA implemented updated PLFs effective with case numbers issued on or after October 2, 2017. However, due to a time lag between case number assignment and mortgage endorsement, there was a transition during the course of FY 2018 from mortgages endorsed under the prior PLFs to mortgages endorsed under the updated PLFs. The full impact from updated PLFs was not recognized until September 2018 when nearly 100 percent of new mortgages were endorsed under the new PLFs. As a result of the transition, PL as a share of MCA declined through the course of FY 2018 from 59.97 percent to 50.23 percent. HECMs endorsed with updated PLFs as a share of MCA at the end of FY 2018 represent a larger retained equity position for HECM borrowers and reduce risk to the MMIF.

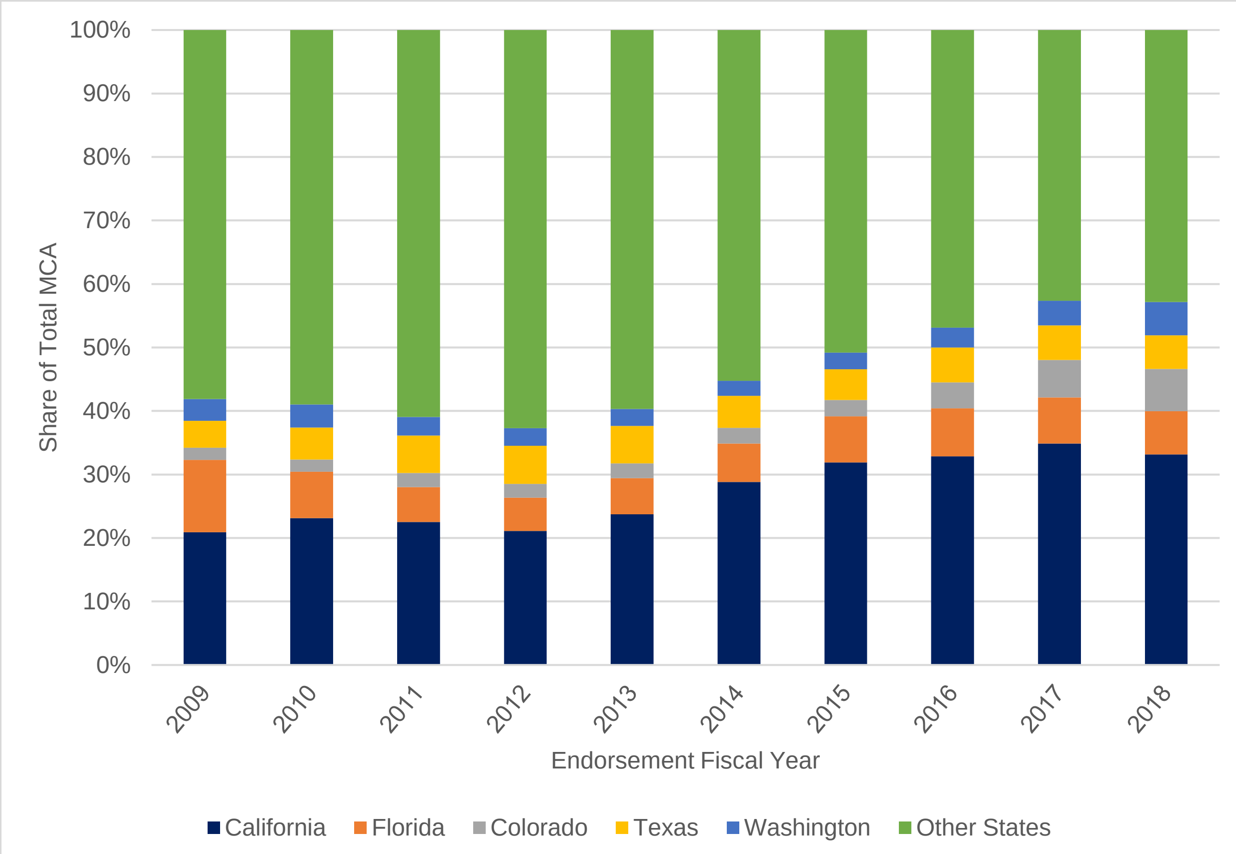
Exhibit I-35: Average Initial Cash Draws of FHA Endorsed HECMs



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-31 in Appendix B.

In FY 2018, HECM borrowers withdrew on average 63.27 percent of their available PL on their initial draw, 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-35 above, and have remained relatively stable over the last four fiscal years.

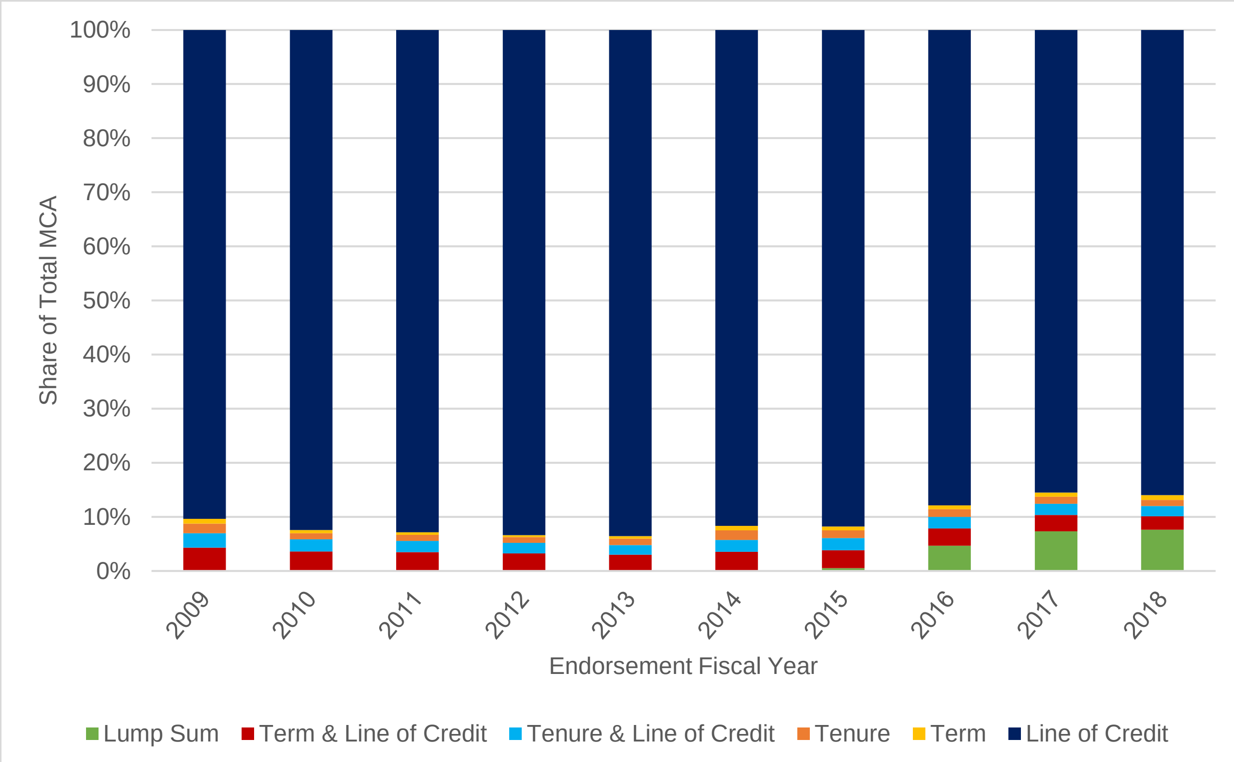
Exhibit I-36: States with the Highest Share of FHA HECMs by MCA



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-33 in Appendix B.

The top three states for HECM endorsements in FY 2018, based on total MCA, were California (33.17 percent), Florida (6.79 percent), and Colorado (6.67 percent). HECMs are more geographically concentrated than Forward mortgages. The top five states represented 57.18 percent of new HECM endorsements in FY 2018. This share has been increasing over the past four fiscal years, creating a more concentrated geographical risk profile for the program. Future HECM performance will be more reliant on economic factors such as home price appreciation in these concentrated states, particularly in California where the share of HECM endorsements is almost five times greater than Florida, the state with the second highest share.

Exhibit I-37: FHA HECMs by Payment Plan Option



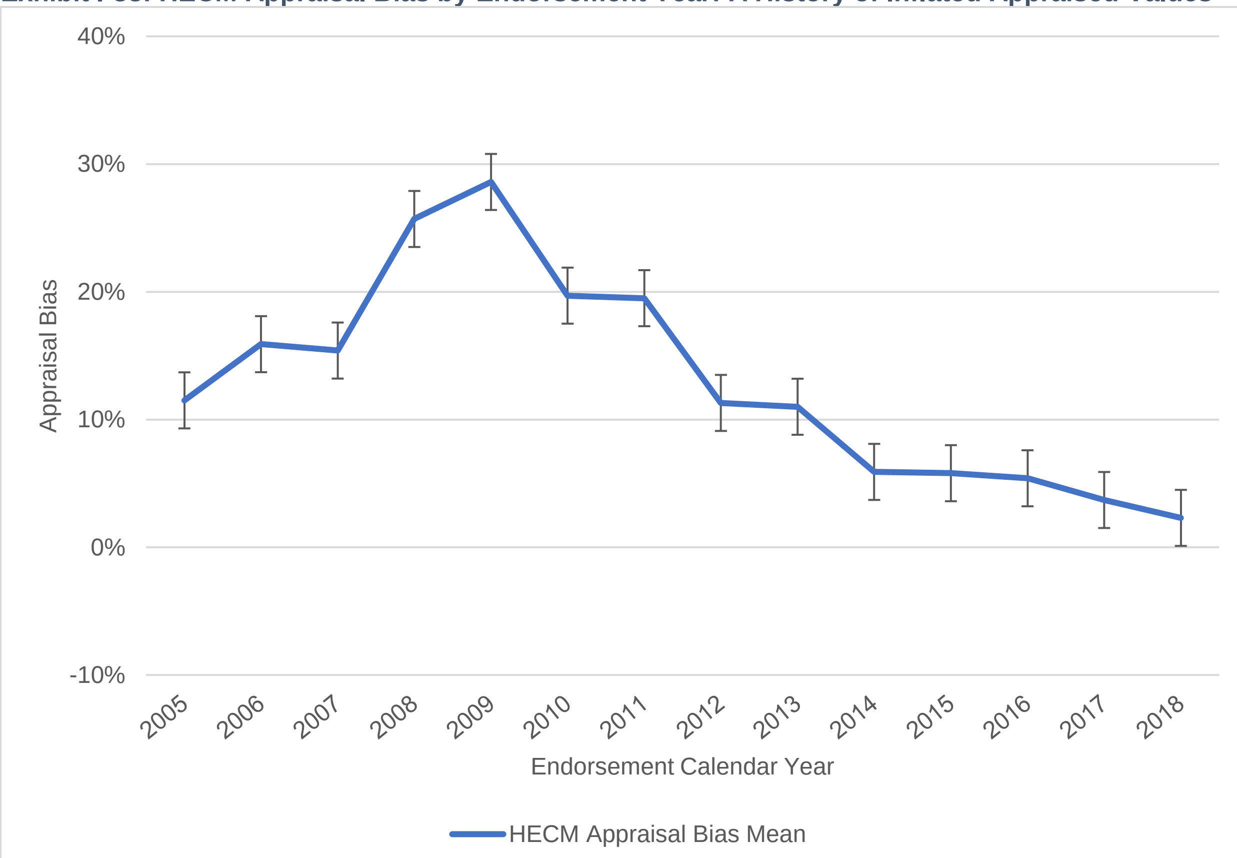
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-34 in Appendix B.

Exhibit I-37 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 predominate 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.

Exhibit I-38: HECM Appraisal Bias by Endorsement Year: A History of Inflated Appraised Values



NOTE: Errors bars indicate 95 percent confidence interval.
SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-35 in Appendix B.

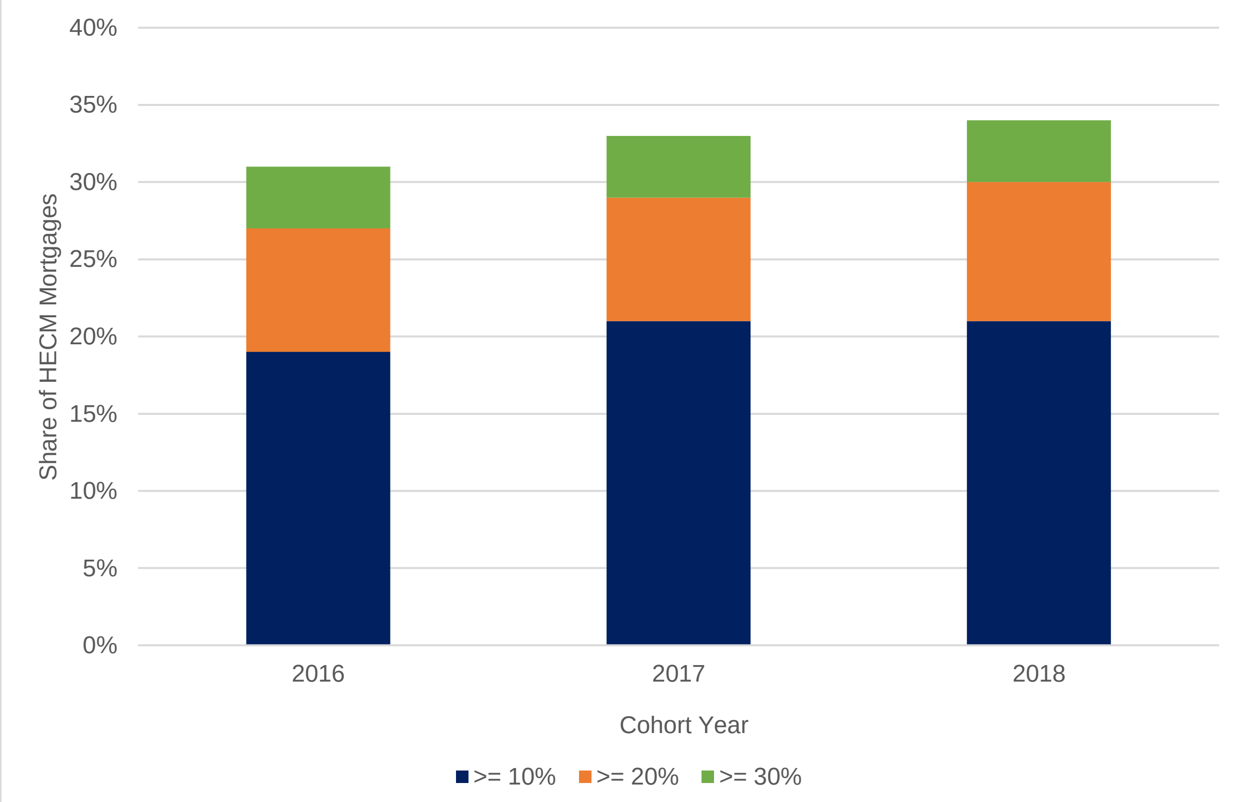
Research published by HUD's Office of Policy Development and Research shows that there is an appraisal bias in properties secured by HECMs.[44] HECM appraisal bias is measured as the difference between the appraised value of a property and its estimated market value. The market value is estimated as the sales price associated with a previous FHA-insured purchase mortgage on the same property, adjusted by a local house price index to the date of the subsequent appraisal.

Exhibit I-38 above shows average appraisal bias on HECM properties by the year in which the mortgages on these properties were endorsed by FHA. On average, HECM mortgages endorsed

[44] Park, Kevin A., (2017). *Reverse Mortgage Collateral: Undermaintenance or Overappraisal, Cityscape*, Volume 19, Number 1, https://www.huduser.gov/portal/periodicals/cityscpe/vol19num1/article1.html.

in CY 2005 were for properties that were appraised 11.5 percent higher than the estimated market value. This appraisal bias rose to a peak of 28.6 percent in CY 2009 which coincided with a time when FHA HECM volume was at a high. Appraisal bias has since been reduced, but as indicated in the above exhibit, 2.30 percent of appraised values, on average, continue to be greater than market value of properties, and the bias has never been negative for any of the recorded years. FHA continues to closely monitor appraisal bias on HECM properties.

Exhibit I-39: Share of HECM Mortgages with Appraisals Exceeding AVM by 10 Percent or More



SOURCE: U.S. Department of HUD/FHA, October 2018.
Refer to data table B-36 in Appendix B.

Exhibit I-39 reflects the potential for continuing appraisal inflation in recent HECM cohorts, posing risk to the MMIF. Evidence of appraisal inflation comes from a comparison of HECM appraised values to those provided by an automated valuation model (AVM). An AVM provides a statistical estimate of a property's value based upon its characteristics and a broad database of historical home sale price data. As such, AVMs provide an objective estimate of home valuation. Large differences between an appraisal and an AVM estimate may indicate that the appraisal may be incorrect.

A comparison of AVM estimated values to appraisals submitted at time of endorsement for over 80,000 HECMs endorsed between 2016 and 2018 strongly suggests there remains a significant share of endorsements that evidence the potential of materially inflated appraisals.

Over this period, 21 percent of the HECMs compared had an appraisal that was 10 percent or more above the AVM estimate, and material amounts exceeded even higher thresholds. For the same period, nine percent had inflated appraisals of more than 20 percent and four percent had inflated appraisals of 30 percent or more.

To address appraisal bias, on September 28, 2018, FHA issued policy requiring a second appraisal where the first appraised value exceeds FHA's value variance tolerance. These new requirements became effective for all HECM originations with FHA case numbers assigned on or after October 1, 2018 through September 30, 2019.

Chapter II:
Condition of the Mutual Mortgage Insurance Fund

Summary

Exhibit II-1: Mutual Mortgage Insurance Fund (MMIF)

Description	2013	2014	2015	2016	2017**	2018
Ending Balances ($ Millions)						
Total Capital Resources*	$29,680	$28,440	$30,862	$35,346	$40,857	$49,237
Cash Flow NPV	($31,010)	($23,666)	($7,040)	($7,795)	($14,112)	($14,375)
Economic Net Worth	($1,330)	$4,774	$23,822	$27,551	$26,745	$34,862
Insurance-In-Force	$1,143,583	$1,137,991	$1,133,099	$1,170,421	$1,226,843	$1,264,672
Balances as a Percent of Ending Insurance-In-Force						
Total Capital Resources	2.60%	2.50%	2.72%	3.02%	3.33%	3.89%
Cash Flow NPV	-2.71%	-2.08%	-0.62%	-0.67%	-1.15%	-1.14%
Economic Net Worth - Capital Ratio	-0.12%	0.42%	2.10%	2.35%	2.18%	2.76%

*Fiscal years 2013 onward include the $1,686 million mandatory appropriation.
** FY 2017 figures for Total Capital Resources and Economic Net Worth, both dollar balances and as percentages of Insurance-In-Force, have been restated since the FY 2017 Annual Report. Please see text for further information.
SOURCE: U.S. Department HUD/FHA, October 2018.

Capital Ratio and Economic Net Worth Increased in FY 2018

During FY 2018, the MMIF Capital Ratio increased to 2.76 percent of IIF, an increase of 0.58 percentage points from the prior year's restated Capital Ratio of 2.18 percent. The Capital Ratio is the Economic Net Worth divided by insurance-in-force (IIF). The FY 2018 MMIF Capital Ratio exceeded the 2.00 percent minimum referenced in statute for the fourth consecutive year.

The Economic Net Worth of the MMIF increased by $8.12 billion, driven largely by favorable housing market condtions during the year and more favorable economic projections than assumed in the FY 2017 report. The strengthened Economic Net Worth will assist the MMIF to better withstand adverse credit, interest rate, home price, and mortgage market risks that may develop.

The stand-alone Economic Net Worth and Capital Ratio for the Forward mortgage portion of the MMIF grew strongly. This growth was much larger than a decline for both figures in the HECM portfolio. This is discussed further below in "Stand-Alone Capital Ratios for Forward Mortgages and HECM."

FHA restated its FY 2017 assets in its FY 2018 audited financial statement to correct a material error which resulted in an understatement of net position in FY 2017. As a result, the FY 2017 Economic Net Worth and Capital Ratio in this report were revised from those in the FY 2017 Annual Report. In Exhibit II-1, the Economic Net Worth increased by $1.12 billion and the Capital Ratio grew by 0.09 percentage points due to the restatement for FY 2017.

Capital Adequacy is Tested

Capital adequacy is the ability of the MMIF to meet its statutory obligation of maintaining a minimum 2.00 percent Capital Ratio across a range of economic conditions assuming no new books of business. Because Economic Net Worth includes the result of forecasted Cash Flow Net Present Value (Cash Flow NPV), FHA tested the effects of a variety of economic scenarios on the MMIF Capital Ratio. This Annual Report includes the results of the tests of the capital adequacy of the MMIF to absorb risk under varying economic conditions using 100 economic scenarios, similar to those that have happened in the past. Test results indicated that, with the current insured portfolio and existing Capital Resources, the MMIF Capital Ratio would remain at or above the 2.00 percent statutory minimum requirement in 94 outcomes. In an additional two outcomes, the Capital Ratio would fall below 2.00 percent but remain above zero. The remaining four outcomes resulted in Capital Ratios below zero.

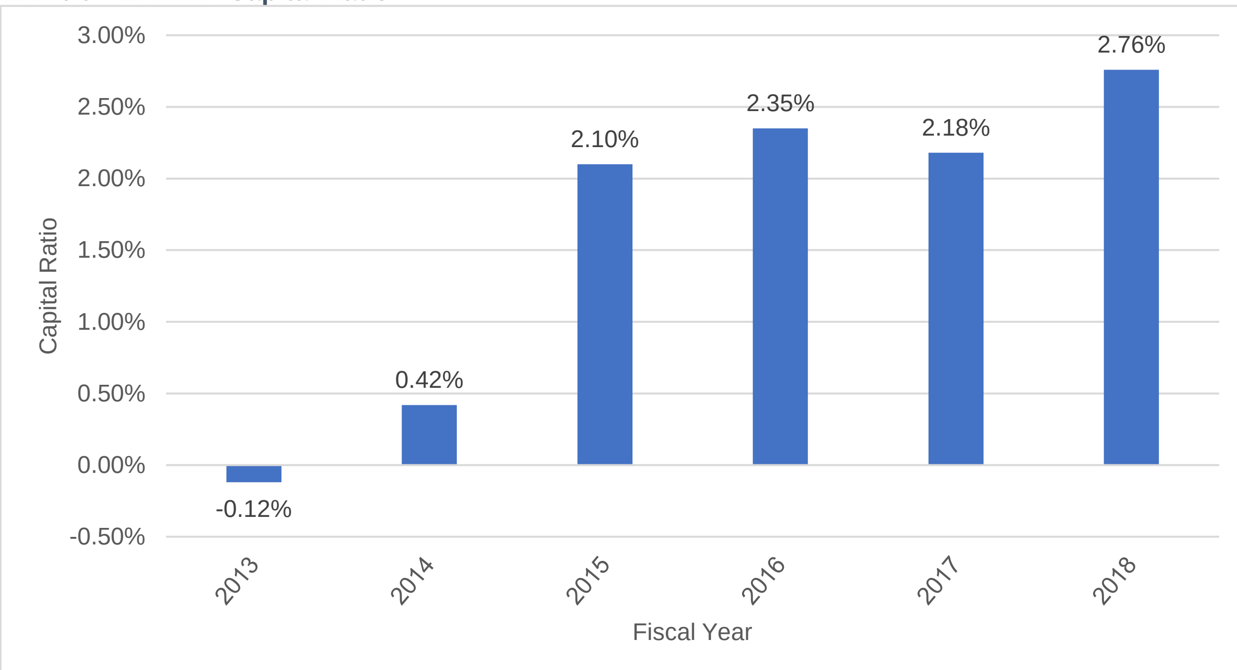
Independent Actuary for FY 2018 Confirms Baseline Projections Are Reasonable

Forecast scenarios of Cash Flow NPV were estimated by FHA, and tested for reasonableness by the independent actuary, Pinnacle Actuarial Resources ("Pinnacle"). Consistency in reporting of FHA financial results is achieved by harmonizing the processes used to produce the estimated Cash Flow NPV evaluated by Pinnacle with the Liability for Loan Guarantees (LLG) reported in FHA's annual audited financial statements. The role of the independent actuary is to serve as a critically important independent check on FHA's methodology and results.

For FY 2018, Pinnacle concluded that FHA's Cash Flow NPV is reasonable and within Pinnacle's reasonable range of Actuarial Estimates. Pinnacle's Actuarial central estimate of Cash Flow NPV from the Forward portfolio is $3.46 billion, compared with FHA's baseline estimate of $1.37 billion. Pinnacle's Actuarial central estimate of HECM Cash Flow NPV is negative $14.22 billion, compared with FHA's baseline estimate of negative $15.75 billion. Pinnacle's Cash Flow NPV estimates for the Forward and HECM portfolio combined total negative $10.76 billion, versus the negative $14.37 billion FHA baseline estimate. The difference between the two estimates of $3.62 billion is 0.29 percent of IIF.

MMIF Capital Ratio

Exhibit II-2: MMIF Capital Ratio



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-1 in Appendix C.

As Exhibit II-2 shows, at 2.76 percent of IIF, the FY 2018 MMIF Capital Ratio exceeded its 2.00 percent statutory capital requirement for the fourth consecutive year. MMIF Total Capital Resources increased to 3.89 percent of IIF from 3.33 percent of IIF at the end of FY 2017. Total Capital Resources are offset by a Cash Flow NPV of negative 1.14 percent of IIF, a slight increase from FY 2017 (Exhibit II-1).

Exhibit II-3: MMIF Capital Ratio Components

Description	2013	2014	2015	2016	2017	2018
Ending Balances ($ Millions)						
Capital Account Balance	$0	$7,331	$15,992	$37,240	$31,638	$28,337
Plus: Financing Account Balances	$29,680	$21,110	$14,870	($1,894)	$9,219	$20,900
Equals: Total Capital Resources	$29,680	$28,440	$30,862	$35,346	$40,857	$49,237
Plus: Cash Flow NPV	($31,010)	($23,666)	($7,040)	($7,795)	($14,112)	($14,375)
Equals: Economic Net Worth	($1,330)	$4,774	$23,822	$27,551	$26,745	$34,862
Insurance-In-Force	$1,143,583	$1,137,991	$1,133,099	$1,170,421	$1,226,843	$1,264,672
Balances as a Percent of Ending Insurance-In-Force						
Capital Account	0.00%	0.64%	1.41%	3.18%	2.58%	2.24%
Plus: Financing Account Balances	2.60%	1.85%	1.31%	-0.16%	0.75%	1.65%
Equals: Total Capital Resources	2.60%	2.50%	2.72%	3.02%	3.33%	3.89%
Plus: Cash Flow NPV	-2.71%	-2.08%	-0.62%	-0.67%	-1.15%	-1.14%
Equals: Economic Net Worth - Capital Ratio	**-0.12%**	**0.42%**	**2.10%**	**2.35%**	**2.18%**	**2.76%**
Insurance-In-Force	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

SOURCE: U.S. Department HUD/FHA, October 2018.

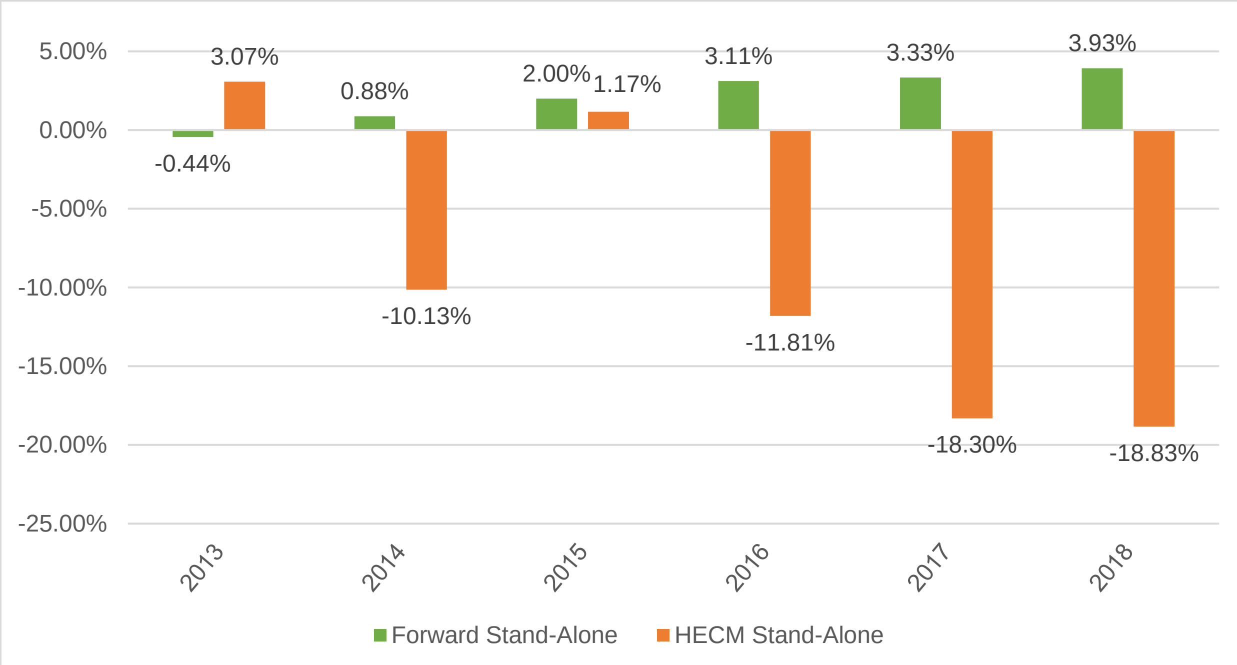
Stand-Alone Capital Ratios for Forward Mortgages and HECMs

To provide insight into the effects of individual products, FHA provides stand-alone Capital Ratios for the Forward and HECM portfolios in this Annual Report. These include adjustment for cross-program subsidy transfers that have been necessary to provide the HECM portfolio with sufficient resources for the cost of upward subsidy re-estimates.

Since joining the MMIF in FY 2009, HECM has deposited $1.30 billion[45] in initial credit subsidies to the Capital Account and withdrawn $14.28 billion in net upward re-estimates, resulting in a net withdrawal of $12.98 billion (Exhibit II-9). HECM's net withdrawal resulted in a cross-program subsidy from the Forward program to HECM. To adjust the FY 2018 program level capital ratios for the cross-subsidization, the $12.98 billion was subtracted from HECM's capital resources and added to the capital resources of the Forward program, net of the $1.69 billion mandatory appropriation in FY 2013. Corresponding adjustments were made to prior years' Forward and HECM capital ratios to more accurately reflect each program's true stand-alone capital resources and capital ratio for prior periods.

[45] An American Budget: Federal Credit Supplement, FY 2019, Table 8, Pg. 70 https://www.whitehouse.gov/wp-content/uploads/2018/02/cr_supp-fy2019.pdf.

Exhibit II-4: Forward and HECM Stand-Alone Capital Ratios



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-2 in Appendix C.

As shown in Exhibit II-4, the stand-alone capital ratio of the Forward portfolio increased to 3.93 percent in FY 2018 from 3.33 percent in FY 2017, equal or exceeding 2.00 percent for the fourth consecutive year. Forward portfolio Economic Net Worth increased by $8.40 billion.

Strong home price appreciation in the housing market, as well as in the economic forecasts, was an important driver in the improvement in Forward Economic Net Worth. In addition, the large inventories of delinquent mortgages that occurred during, and immediately after, the housing crisis appear to have a declining influence on projections of claim losses. Finally, the FY 2018 cohort added $5.72 billion to Economic Net Worth.

Against these positive trends there were two major negative forces that FHA reflected in its estimates. First, FHA incorporated the effect of natural disasters by projecting that delinquencies in disaster-affected areas have a high probability of claim losses. FHA incorporates the fiscal impact on the MMIF from natural disasters by projecting an increased likelihood of claim, and therefore ultimate loss, on delinquent mortgages in disaster-affected areas. The impact on the probability of future claim is similar to the effect of mortgage delinquency caused by non-disaster factors such as income interruption, job loss, divorce, or other common underlying drivers of default. To the extent that the effects of natural disasters have a more temporary impact on FHA borrowers, actual disaster-related losses may be more favorable than predicted. See Chapter 1 Exhibits I-20 and I-21 for the behavior of Serious Delinquencies and Early Payment Defaults in certain disaster-impacted areas during FY 2018.

The second negative force was from FHA updating its models for calculating the probability of claim. These specification changes to the econometric models better reflect historical experience than the prior models and improve statistical validity. The changes result in higher probabilities of claim when keeping economic forecasts constant. This factor reduced but did not eliminate the effect of more favorable economic conditions.

Exhibit II-5: Forward Mortgage Insurance Program Stand-Alone Capital Ratio Components

Description	2013	2014	2015	2016	2017	2018
Balances ($ Millions) as of September 30						
Net Cross-Program Subsidy Paid*	$3,107	$3,568	$4,303	($1,097)	$10,010	$11,298
Plus: Capital Account Balance	$0	$7,331	$15,992	$37,240	$31,638	$28,337
Plus: Financing Account Balance	$20,561	$12,285	$5,238	($5,916)	($4,593)	$5,803
Equals: Total Capital Resources	$23,668	$23,183	$25,533	$30,227	$37,056	$45,438
Plus: Cash Flow NPV	($28,432)	($13,684)	($4,186)	$3,948	$1,357	$1,372
Equals: Economic Net Worth	($4,764)	$9,499	$21,347	$34,175	$38,413	$46,810
Insurance-In-Force	$1,086,647	$1,074,732	$1,065,360	$1,100,046	$1,153,875	$1,192,283
Balances as a Percent of Insurance-In-Force						
Net Cross-Program Subsidy Paid	0.29%	0.33%	0.40%	-0.10%	0.87%	0.95%
Capital Account	0.00%	0.68%	1.50%	3.39%	2.74%	2.38%
Plus: Financing Account Balance	1.89%	1.14%	0.49%	-0.54%	-0.40%	0.49%
Equals: Total Capital Resources	2.18%	2.16%	2.40%	2.75%	3.21%	3.81%
Plus: Cash Flow NPV	-2.62%	-1.27%	-0.39%	0.36%	0.12%	0.12%
Equals: Economic Net Worth - Capital Ratio	**-0.44%**	**0.88%**	**2.00%**	**3.11%**	**3.33%**	**3.93%**
Insurance-In-Force	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

NOTE: Net Cross-Program Subsidy Paid excludes the $1,686 million mandatory appropriation in FY 2013 through FY 2018.
SOURCE: U.S. Department HUD/FHA, October 2018.

As evidenced by Exhibit II-6, the stand-alone Capital Ratios of Forward mortgages turned positive beginning with the FY 2010 cohort and remain positive after that, with a peak value in FY 2015.

This trend generally reflects the health of the economy and housing market in the years subsequent to endorsement, as well as the credit profile of FHA borrowers. Cohorts from FY 2004 through FY 2009 represent an era where the credit quality of FHA borrowers was weak, seller-funded downpayment assistance was common, and the effects of the recession and the deflation of the housing bubble adversely affected mortgage performance. After FY 2009, the mortgage performance of the cohorts benefited from economic recovery, an improvement in FHA borrower credit quality, and higher Mortgage Insurance Premium (MIP) rates.

Exhibit II-6: Forward Mortgage Insurance Portfolio Insurance-In-Force and Stand-Alone Capital Ratios by Cohort

Cohort	Insurance-In-Force ($ Millions)	Percent of Insurance-In-Force	Stand-Alone Capital Ratio
1992 - 2000	$9,051	0.76%	66.40%
2001	$2,271	0.19%	-47.28%
2002	$4,349	0.36%	-35.27%
2003	$9,352	0.78%	2.30%
2004	$10,209	0.86%	-42.03%
2005	$8,062	0.68%	-55.02%
2006	$7,181	0.60%	-72.50%
2007	$7,764	0.65%	-85.84%
2008	$21,480	1.80%	-68.58%
2009	$53,102	4.45%	-13.99%
2010	$67,786	5.69%	5.50%
2011	$56,793	4.76%	11.68%
2012	$72,436	6.08%	14.42%
2013	$106,937	8.97%	13.06%
2014	$47,080	3.95%	15.82%
2015	$111,593	9.36%	16.45%
2016	$176,098	14.77%	6.60%
2017	$216,781	18.18%	3.70%
2018	$203,955	17.11%	2.81%
Total	**$1,192,283**	**100.00%**	**3.93%**

SOURCE: U.S. Department HUD/FHA, October 2018.

This Report introduces a new stand-alone measure for Forward mortgages and HECM. For Forward mortgages, Exhibit II-7 is the execution of this new measure. It provides cohort-level ratios of the Economic Net Worth divided by the aggregate mortgage amount at endorsement. *This is a different measure than the Capital Ratio, which utilizes current IIF rather than original endorsed mortgage amounts in the denominator.* In contrast to the Capital Ratio for individual cohorts, using original endorsement amounts allows for a fairer comparison across cohorts with regard to overall economic impact on the MMIF.[46]

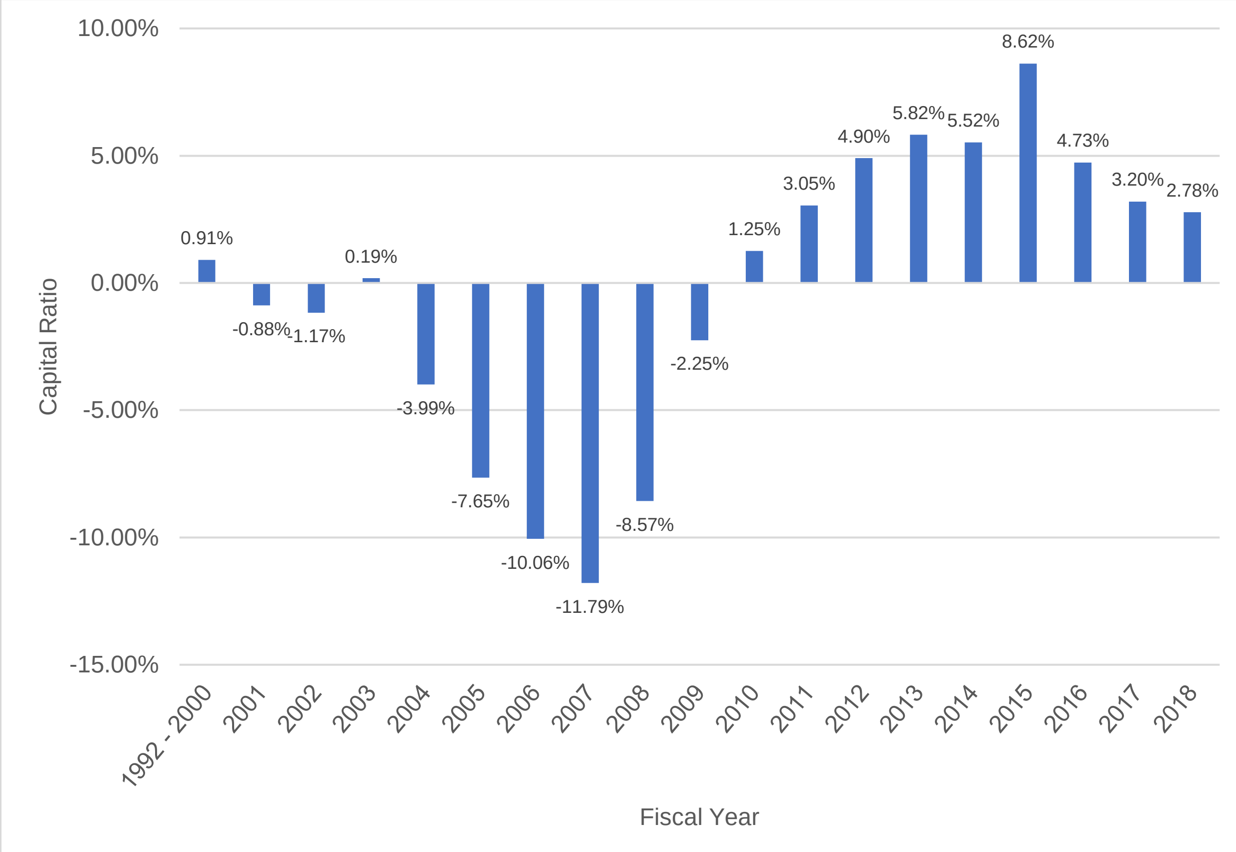
[46] As the balances of Forward mortgages decrease with each monthly mortgage payment and with each prepayment, a cohort's amount of IIF tends to decline over time. As such, an older cohort will tend to have much lower amounts of IIF compared to newer cohorts. Consequently, older cohorts will have small values in the denominator of their Capital Ratio, and this will expand the size of the ratio. Declining amortized balances effectively leverage up Capital Ratio values.

Exhibit II-7: Forward Mortgage Insurance Program Disbursements and Economic Net Worth Ratios by Cohort

Cohort	Disbursements at Endorsement ($ Millions)	Share of Total Disbursements	Economic Net Worth per Disbursements
1992 – 2000	$659,561	17.25%	0.91%
2001	$121,642	3.18%	-0.88%
2002	$131,415	3.44%	-1.17%
2003	$115,980	3.03%	0.19%
2004	$107,617	2.81%	-3.99%
2005	$57,972	1.52%	-7.65%
2006	$51,765	1.35%	-10.06%
2007	$56,509	1.48%	-11.79%
2008	$171,825	4.49%	-8.57%
2009	$330,459	8.64%	-2.25%
2010	$297,614	7.78%	1.25%
2011	$217,748	5.70%	3.05%
2012	$213,167	5.58%	4.90%
2013	$239,975	6.28%	5.82%
2014	$135,033	3.53%	5.52%
2015	$212,918	5.57%	8.62%
2016	$245,448	6.42%	4.73%
2017	$250,923	6.56%	3.20%
2018	$205,866	5.38%	2.78%

SOURCE: U.S. Department HUD/FHA, October 2018.

Exhibit II-8: Forward Mortgage Economic Net Worth Divided by Original Disbursements



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-3 in Appendix C.

As shown in Exhibit II-9, the Economic Net Worth of the HECM portfolio declined by $0.28 billion, resulting in the stand-alone HECM capital ratio declining to negative 18.83 percent. While more favorable actual and projected economic conditions increased Economic Net Worth for HECMs, these beneficial impacts were offset by two negative factors. First, modeling changes to more accurately reflect the timing of anticipated recoveries on assets lowered Economic Net Worth by about $1 billion. Second, the FY 2018 cohort has an Economic Net Worth of negative $1.24 billion.

The negative Economic Net Worth of the FY 2018 cohort was caused primarily by the FY 2018 endorsements under the "old" Principal Limit Factors (PLFs). FHA updated PLFs, and restructured premiums, for HECMs with case numbers assigned on or after October 2, 2017. Of the MCA for HECMs endorsed in FY 2018, 52 percent was for case numbers assigned prior to October 2, 2017. As a result, the benefit to the MMIF from the updated PLFs and restructured premiums was only partially realized in FY 2018. By September of FY 2018, nearly 100 percent of all new HECMs endorsed reflected the benefit of the updated PLFs. Consequently, the full benefit of the updated PLFs will be realized in FY 2019. Within the FY cohort 2018 the beneficial impact of the updated PLFs and restructured MIPs resulted in an improvement in the stand-alone Capital Ratios of 11.87 percent (Exhibit II-10).

In FHA's 2018 audited financial statements, FHA restated HECM assets on its FY 2017 balance sheet. These are reflected in Exhibit II-9 and therefore differ from the figures in the FY 2017 Annual Report. Compared to the FY 2017 Annual Report, the Financing Account balance and therefore the Economic Net Worth of the HECM portfolio increased by $1.12 billion. The corresponding effect on the HECM capital ratio is an increase of 1.54 percent. The restatement was caused by an error in the discounting of cash flows. Previously, cash flows projected to be received for Secretary-held HECMs were discounted to the date of endorsement rather than September 30 of the current fiscal year. As a result, the value of these assets was understated, which was corrected by the restatement.

Exhibit II-9: HECM Insurance Program Stand-Alone Capital Ratio Components

Description	2013	2014	2015	2016	2017	2018
Balances ($ millions) as of September 30						
Net Cross-Program Subsidy Received	($4,793)	($5,254)	($5,989)	($589)	($11,696)	($12,984)
Plus: Capital Account Balance	$0	$0	$0	$0	$0	$0
Plus: Financing Account Balance	$9,119	$8,825	$9,632	$4,022	$13,811	15,097
Equals: Total Capital Resources	$4,326	$3,571	$3,643	$3,433	$2,115	$2,113
Plus: Cash Flow NPV	($2,578)	($9,982)	($2,854)	($11,743)	($15,469)	($15,747)
Equals: Economic Net Worth	$1,748	($6,411)	$789	($8,310)	($13,354)	($13,634)
Insurance-In-Force	$56,936	$63,259	$67,739	$70,375	$72,968	$72,389
Balances as a Percent of Insurance-In-Force						
Net Cross-Program Subsidy Received	-8.42%	-8.31%	-8.84%	-0.84%	-16.03%	-17.94%
Capital Account	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Plus: Financing Account Balance	16.02%	13.95%	14.22%	5.72%	18.93%	20.86%
Equals: Total Capital Resources	7.60%	5.65%	5.38%	4.88%	2.90%	2.92%
Plus: Cash Flow NPV	-4.53%	-15.78%	-4.21%	-16.69%	-21.20%	-21.75%
Equals: Economic Value - Capital Ratio	**3.07%**	**-10.13%**	**1.17%**	**-11.81%**	**-18.30%**	**-18.83%**
Insurance-In-Force	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

SOURCE: U.S. Department HUD/FHA, October 2018.

As evidenced by Exhibit II-10, the stand-alone Capital Ratios of all HECM cohorts from FY 2009 through FY 2018 are negative and range in size from negative 3.69 percent to negative 42.30 percent. In general, post-2013 cohorts perform better than earlier cohorts, reflecting the effect of programs changes such as decreasing PLFs. The FY 2014 and FY 2015 cohorts have the best ratios. This reflects the strong house price appreciation experienced since their mortgages' endorsement.

Because, as discussed above, there were effectively two PLF schedules in FY 2018, this exhibit divides the cohort between the "old" and the "new" populations. This highlights the effectiveness of PLF and premium changes as the new population has a Capital Ratio that is 11.87 percentage points better than the old population.

Exhibit II-10 HECM Insurance Program Insurance-In-Force and Stand-Alone Capital Ratios By Cohort

Cohort	Insurance-In-Force ($ Millions)	Percent of Insurance-in-Force	Stand-Alone Capital Ratio
2009	$11,951	16.51%	-29.40%
2010	$6,667	9.21%	-42.30%
2011	$6,652	9.19%	-22.71%
2012	$6,142	8.48%	-15.82%
2013	$7,892	10.90%	-11.06%
2014	$5,582	7.71%	-3.69%
2015	$6,753	9.33%	-6.75%
2016	$6,448	8.91%	-10.12%
2017	$8,078	11.16%	-17.22%
2018 (Old PLFs)	$3,579	4.94%	-24.95%
2018 (New PLFs)	$2,646	3.66%	-13.08%
Total	**$72,389**	**100.00%**	**-18.83%**

SOURCE: U.S. Department HUD/FHA, October 2018.

Exhibit II-11 provides, for HECM mortgages, cohort-level ratios of the Economic Net Worth divided by the aggregate MCA at endorsement. *This is a different measure than the Capital Ratio.* In contrast to the Capital Ratio, using aggregate MCA at time of endorsement allows for a more consistent comparison across cohorts, and provides a similar comparison to the one shown for Forward mortgages in Exhibit II-7. Within the FY 2018 cohort, the beneficial impact of the updated PLFs and restructured MIPs resulted in an improvement in Economic Net Worth per dollar of MCA endorsed of 6.16 percentage points.[47] The financial performance of both the Forward and HECM portfolios is addressed more fully in the section titled Capital Adequacy: Capital Ratio Outcomes.

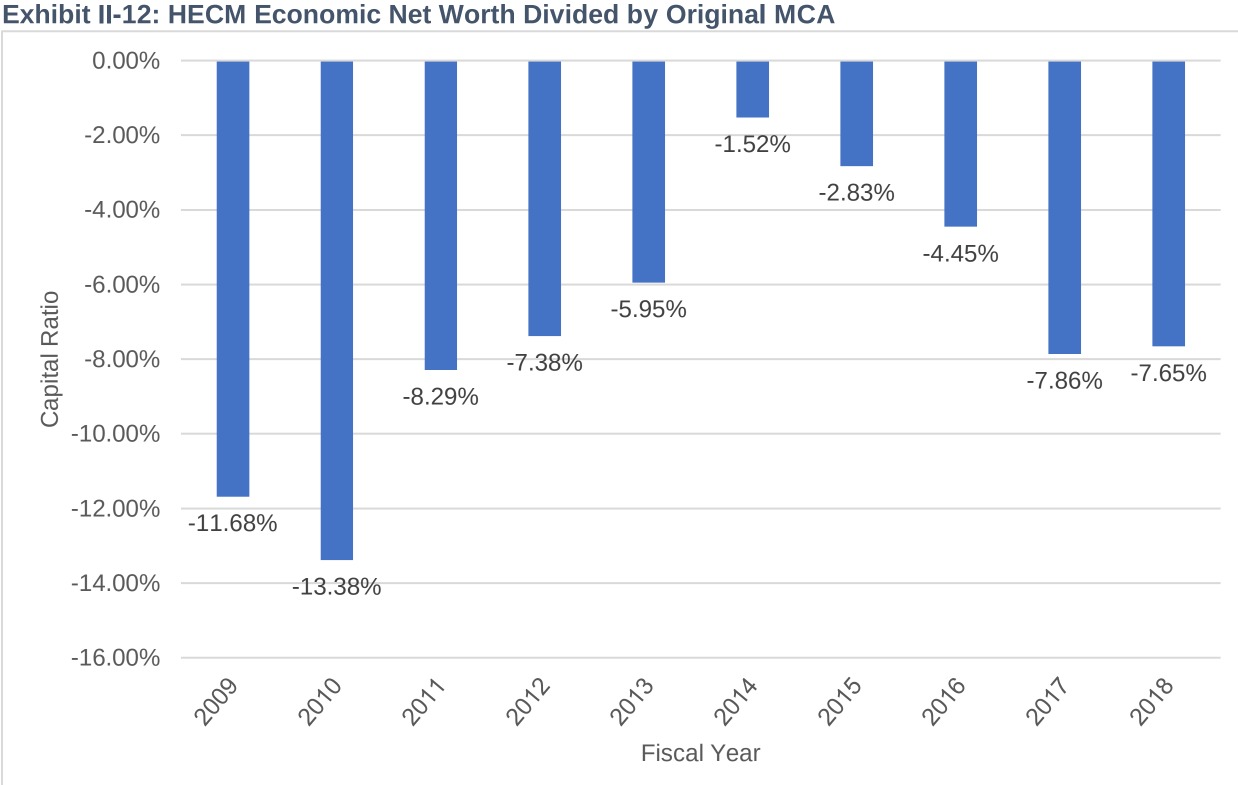
[47] Under the old PLFs, the Economic Net Worth per dollar of MCA endorsed in FY 2018 was 10.61 percent, and under the updated PLFs the Economic Net Worth per dollar of MCA endorsed in FY 2018 was 4.45 percent, resulting in a difference (the improvement) of 6.16 percentage points.

Exhibit II-11 HECM Original MCA and Economic Net Worth Ratios by Cohort

Cohort	MCA ($ Millions)	Percent of MCA	Economic Net Worth Per MCA
2009	$30,074	17.15%	-11.68%
2010	$21,074	12.01%	-13.38%
2011	$18,216	10.39%	-8.29%
2012	$13,167	7.51%	-7.38%
2013	$14,682	8.37%	-5.95%
2014	$13,521	7.71%	-1.52%
2015	$16,130	9.20%	-2.83%
2016	$14,660	8.36%	-4.45%
2017	$17,691	10.09%	-7.86%
2018	$16,189	9.23%	-7.65%

SOURCE: U.S. Department HUD/FHA, October 2018.

Exhibit II-12: HECM Economic Net Worth Divided by Original MCA

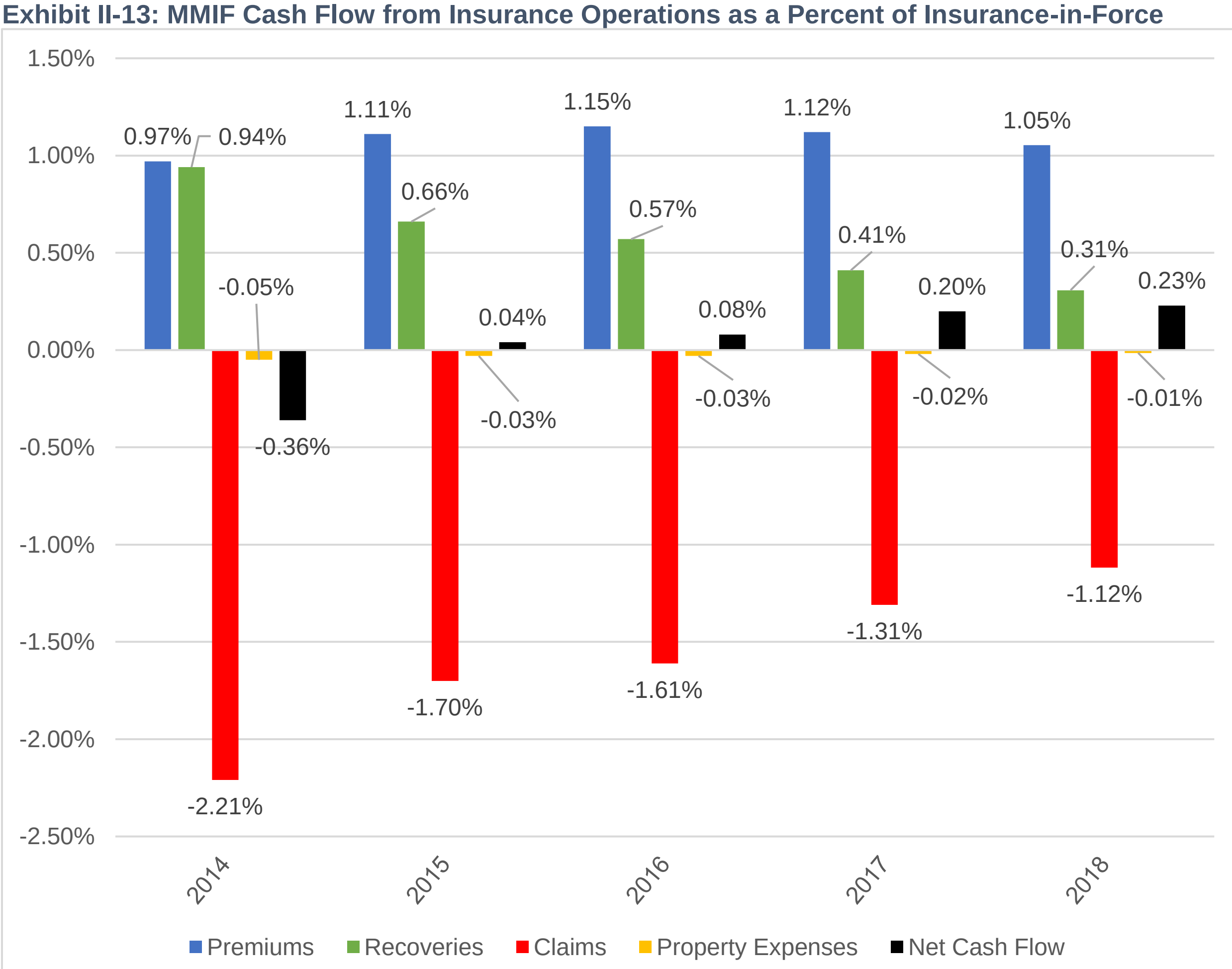


SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-4 in Appendix C.

Cash Flow from Insurance Operations

As shown in Exhibit II-13, MMIF net cash flow from insurance operations increased to 0.23 percent of average IIF in FY 2018, up from 0.20 percent in FY 2017, marking the fifth consecutive year of improvement and the fourth year of positive net cash inflows. The changes in net cash flows resulted from improvements in Forward mortgage net cash inflows partially offset by continued deterioration in HECM net cash flows. Premium inflows were 1.05 percent of IIF, down slightly from 1.12 percent in FY 2017. Inflows from recoveries on acquired notes and properties decreased to 0.31 percent of IIF from 0.41 percent a year earlier. Cash outflows from claims were negative 1.12 percent of IIF in FY 2018, down from negative 1.31 percent a year ago, making FY 2018 the sixth consecutive year of smaller claim outflows. Property expenses decreased to negative 0.01 percent of IIF from negative 0.02 percent in FY 2017.

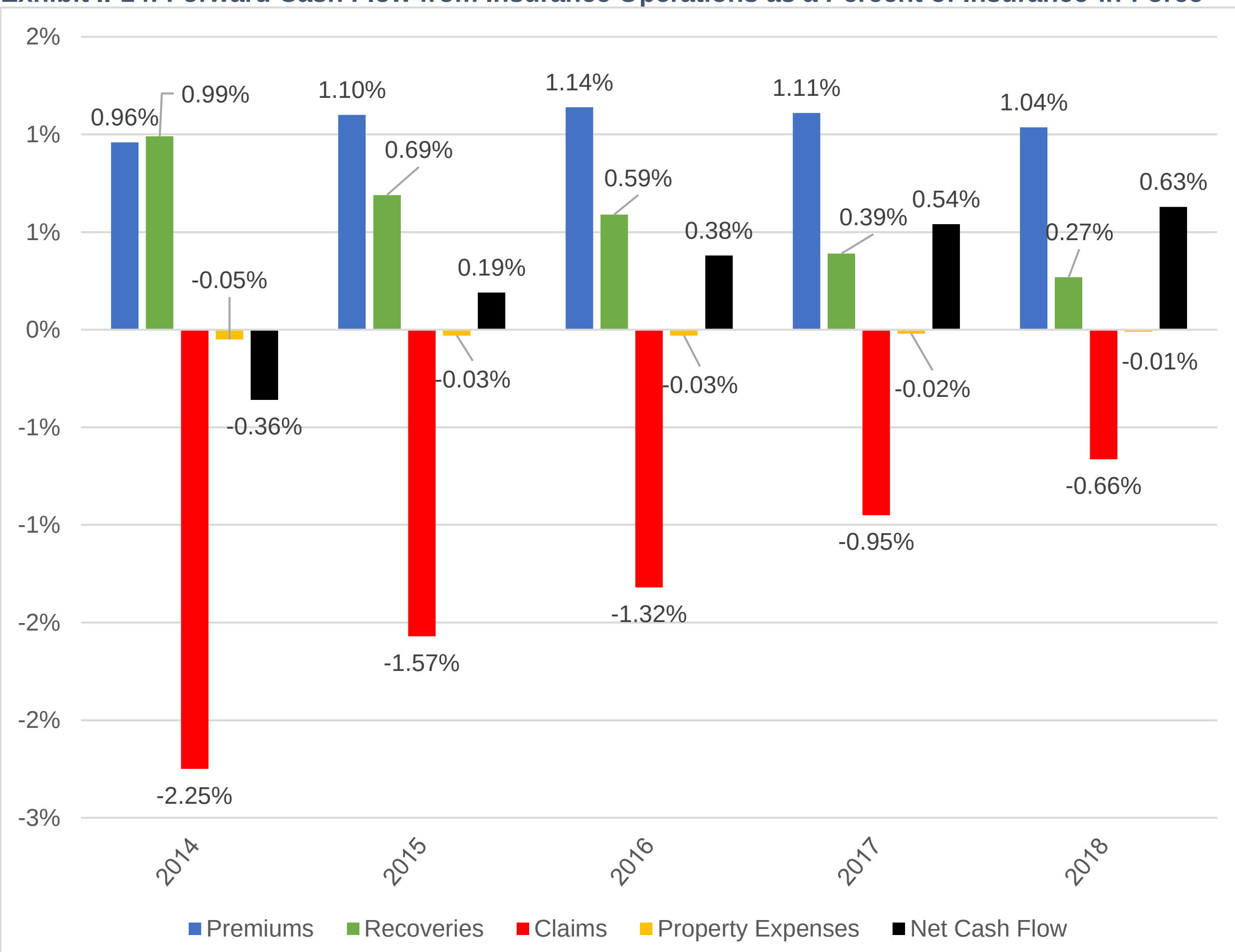
Exhibit II-13: MMIF Cash Flow from Insurance Operations as a Percent of Insurance-in-Force



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-5 in appendix C.

As shown in Exhibit II-14, Forward net cash flow from insurance operations increased to 0.63 percent of IIF in FY 2018, up from 0.54 percent in FY 2017. Premium inflows were 1.04 percent of IIF, down from 1.11 percent in FY 2017. Inflows from recoveries on acquired notes and properties decreased to 0.27 percent of IIF from 0.39 percent a year earlier. Cash outflows from claims were negative 0.66 percent of IIF in FY 2018, improving from negative 0.95 percent a year ago. Property expenses also improved to negative 0.01 percent of IIF from negative 0.02 percent in FY 2017.

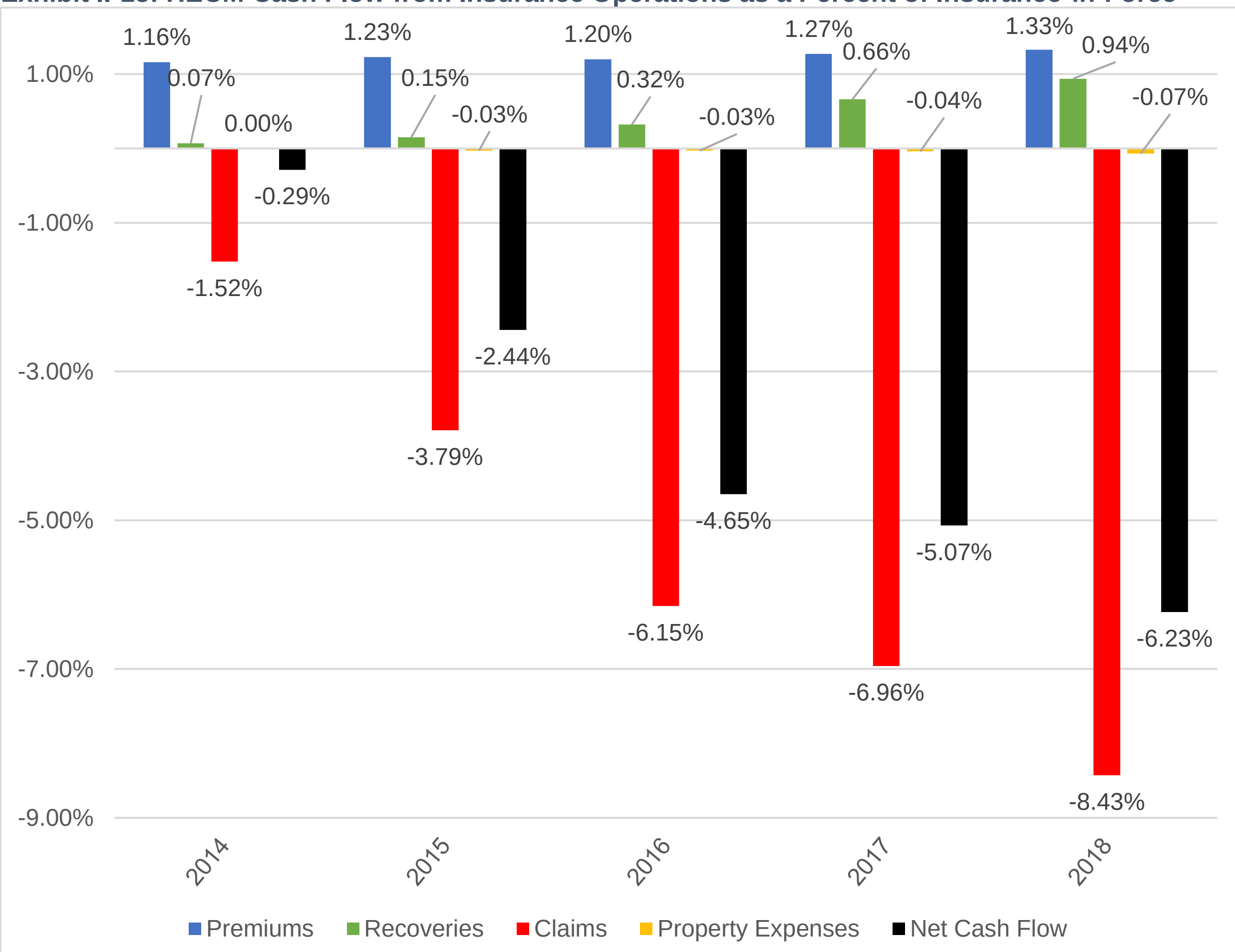
Exhibit II-14: Forward Cash Flow from Insurance Operations as a Percent of Insurance-in-Force



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-6 in Appendix C.

As shown in Exhibit II-15, HECM net cash flow from insurance operations fell to negative 6.23 percent of IIF in FY 2018, from negative 5.07 percent in FY 2017. Premium inflows were 1.33 percent of IIF, up from 1.27 percent in FY 2017. Inflows from recoveries on acquired notes and properties increased to 0.94 percent of IIF from 0.66 percent a year earlier. Cash outflows from HECM claims grew to negative 8.43 percent of IIF in FY 2018, from negative 6.96 percent in FY 2017. Property expenses grew to negative 0.07 percent of IIF from negative 0.04 percent in FY 2017.

Exhibit II-15: HECM Cash Flow from Insurance Operations as a Percent of Insurance-in-Force



SOURCE: U.S. Department HUD/FHA, October 2018.
Refer to data table C-7 in appendix C.

Capital Ratio Sensitivity to Assumptions

Consistent with the Federal Credit Reform Act of 1990 (FCRA), the Net Present Value (NPV) of future MMIF cash flows was estimated using the underlying economic assumptions in the President's FY 2018 Mid-Session Review. These assumptions set the future path of interest rates and house price appreciation, both of which influence future cash flows to and from MMIF insurance operations. Changes in these critical assumptions revise the estimated NPV of future cash flows and therefore the Economic Net Worth of the MMIF. Economic Net Worth of the MMIF in FY 2018 totaled $34.86 billion, comprising $49.24 billion in Total Capital Resources offset by negative $14.38 billion in Cash Flow NPV.

One method used to test the sensitivity of the MMIF Capital Ratio to changing economic conditions is to shift the future path of home prices and interest rates upward and downward by equal amounts. This analysis, summarized in Exhibit II-16, shows that a one percent parallel upward shift in future interest rates would increase the MMIF Capital Ratio to 2.95 percent from 2.76 percent, and a one percent downward shift in interest rates would reduce the Capital Ratio to 2.56 percent. Compared with interest rates, the MMIF Capital Ratio is relatively more sensitive to changes in house prices. A one percent upward shift in the long-term rate of house price appreciation would increase the MMIF Capital Ratio to 3.89 percent. Conversely, a one percent downward shift in the long-term rate of house price appreciation would cause the MMIF Capital Ratio to fall to 1.36 percent, well below the 2.00 percent minimum requirement.

On a stand-alone basis, the Forward portfolio is less sensitive to changes in assumptions than the MMIF overall. A one percent parallel upward shift in future interest rates would increase the Forward portfolio Capital Ratio to 4.25 percent from 3.93 percent, and a one percent downward shift in interest rates would reduce the Forward portfolio capital ratio to 3.56 percent. A one percent upward shift in the long-term rate of house price appreciation would increase the Forward portfolio capital ratio to 4.60 percent. Conversely, a one percent downward shift in the long-term rate of house price appreciation would cause the forward portfolio capital ratio to fall to 2.92 percent, remaining above the 2.00 percent minimum statutory requirement.

On a stand-alone basis, HECM is considerably more sensitive to changes in assumptions than the MMIF overall. A one percent parallel upward shift in future interest rates would shift the HECM stand-alone capital ratio to negative 20.82 percent from negative 18.83 percent, and a one percent downward shift in interest rates would improve the HECM portfolio capital ratio to negative 16.25 percent. The greater sensitivity of the HECM portfolio to a change in interest rates than the Forward portfolio reflects the fact that many HECMs have adjustable rates. Higher interest rates increase the rate at which HECM mortgage balances grow, reducing equity in the home at a faster rate and increasing losses to FHA. A one percent upward shift in the long-term rate of house price appreciation would improve the HECM capital ratio to negative 10.12 percent. Conversely, a one percent downward shift in the long-term rate of house price appreciation would cause the HECM capital ratio to deteriorate to negative 26.73 percent.

Exhibit II-16: Sensitivity of Capital Ratios to Changes in Assumptions – MMIF, Forwards, and HECM – FY 2018

Assumption	Change from Baseline	Impact on Capital Ratio - Change in NPV as a Percent of IIF			Stand-Alone Capital Ratios after Changes in Assumptions		
		MMIF	Forward	HECM	MMIF	Forward	HECM
Baseline	0%	0.00%	0.00%	0.00%	2.76%	3.93%	-18.83%
Interest Rates	1%	0.19%	0.32%	-1.99%	2.95%	4.25%	-20.82%
Interest Rates	-1%	-0.19%	-0.36%	2.58%	2.56%	3.56%	-16.25%
House Price Appreciation	1%	1.13%	0.67%	8.71%	3.89%	4.60%	-10.12%
House Price Appreciation	-1%	-1.40%	-1.00%	-7.90%	1.36%	2.92%	-26.73%

SOURCE: U.S. Department HUD/FHA, October 2018.

Comparison to Independent Actuary's Results

12 USC 1708(a)(4) requires FHA to annually provide for an independent actuarial study of the MMIF and to submit a report to Congress describing the results of such study. For this Annual Report, FHA engaged Pinnacle to test the reasonableness of its FY 2018 estimates of Forward and HECM Cash Flow NPVs. The actuary serves as a critically important independent check on FHA's methodology. FHA's and Pinnacle's estimates were prepared in accordance with the Federal Credit Reform Act and Actuarial Standards of Practice.

Pinnacle concluded that FHA's $1.37 billion estimate of Forward Cash Flow NPV is reasonable. Pinnacle independently estimated Forward Cash Flow NPV at $3.46 billion. Pinnacle independently estimated the range of reasonable estimates for Forward Cash Flow NPV as negative $15.42 billion to $18.19 billion.

Pinnacle also concluded that FHA's negative $15.75 billion estimate of HECM Cash Flow NPV is reasonable. Pinnacle independently estimated HECM's Cash Flow NPV at negative $14.22 billion. Pinnacle independently estimated the range of reasonable estimates for HECM Cash Flow NPV as negative $21.18 billion to negative $1.90 billion. Pinnacle's Cash Flow NPV estimates for Forward and HECM combined total negative $10.76 billion versus negative $14.38 billion for FHA's baseline estimate. The difference between the two estimates of $3.62 billion is 0.29 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.

Capital Adequacy

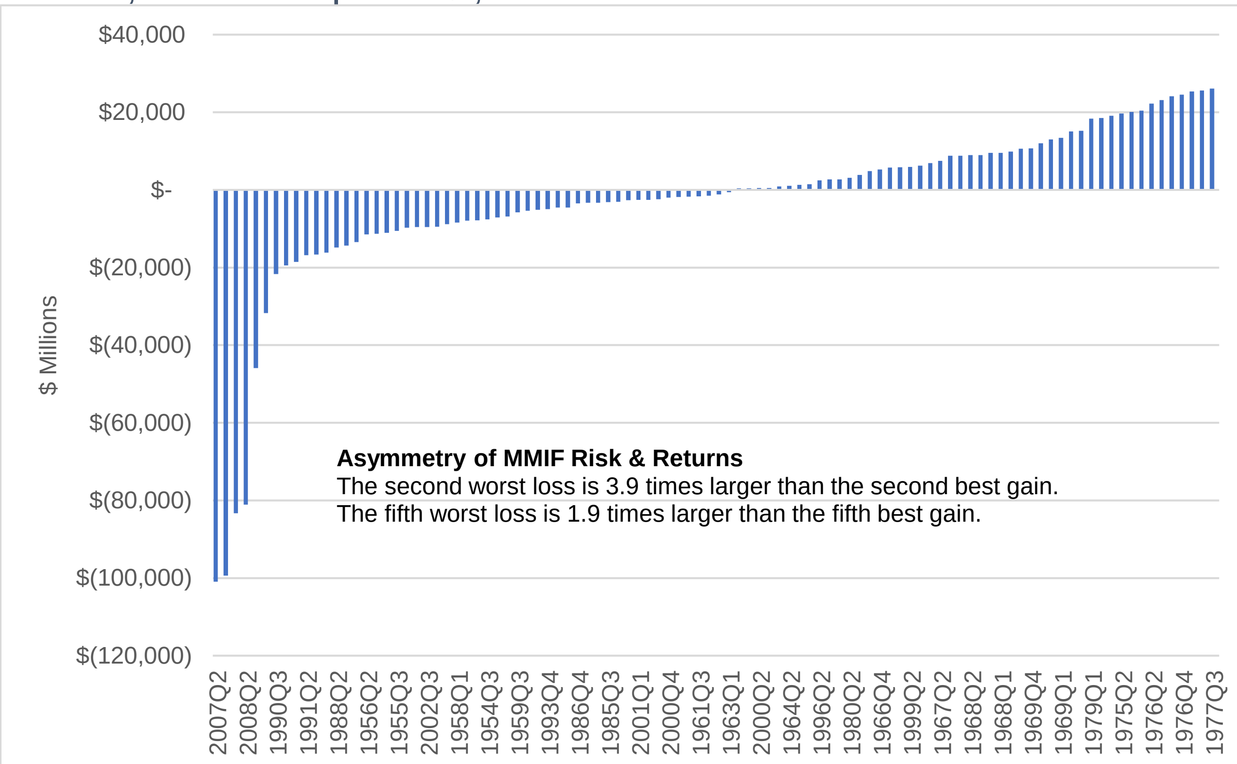
Capital Adequacy Testing: Distribution of Cash Flow NPV

The baseline value of the MMIF's Economic Net Worth presented in Exhibit II-1 of this report is estimated using a single economic scenario. The purpose of the MMIF capital adequacy tests reported in this section is to assess the MMIF's capacity to absorb risk under varying economic conditions, including scenarios that are more stressful than those reflected in the baseline assumptions. The MMIF Economic Net Worth and Capital Ratio depend critically upon Cash Flow NPV, which is uncertain because Cash Flow NPV varies with the performance of the insured mortgages which, in turn, varies with economic conditions. The distribution of the resulting gains and losses compared with current Capital Resources determines the adequacy of the MMIF's current capital to bear risk. Understanding this distribution is a step toward understanding the MMIF's capital adequacy.

To analyze Cash Flow NPV and the resulting impact on MMIF Capital Ratios, historical 30-year economic scenarios were constructed from actual coincident quarterly changes in interest rates and house prices starting in 1954 and continuing through 2008. Scenarios with less than 30 years of actual results were completed using the President's FY 2018 Mid-Session Review budget assumptions, but no scenario has less than eight years of actual historical data. Generally, the economic conditions experienced by a mortgage during its initial three to seven years are most impactful to how that mortgage will perform. One hundred of these scenarios were selected randomly and used to test changes in Cash Flow NPV and the resulting MMIF Capital Ratio. Testing was carried out by substituting the actual quarter-by-quarter changes in interest rates and house prices of each scenario for the economic assumptions underlying the President's FY 2018 Mid-Session Review budget.

The results of the scenarios tested reveal that the MMIF faces an asymmetrical distribution of risk and return as shown in Exhibit II-17. Potential gains in Cash Flow NPV are limited by mortgage pre-payments but decreases in Cash Flow NPV may be catastrophic. In the 100 historical scenarios tested the second worst loss is almost four times larger than the second best gain, and the fifth worst loss is almost two times larger than the fifth best gain.

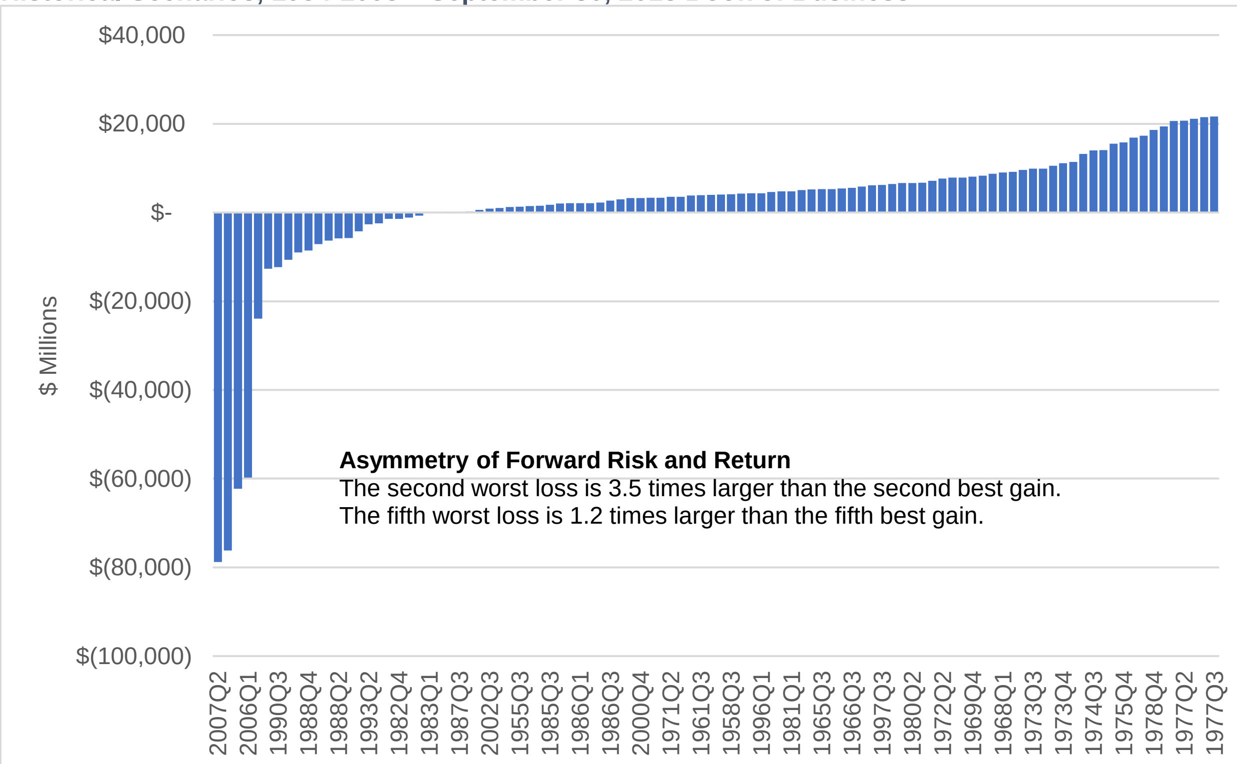
Exhibit II-17: Mutual Mortgage Insurance Fund Distribution of Cash Flow NPV through 100 Historic Scenarios, 1954-2008 – September 30, 2018 Book of Business



NOTE: The quarters are ordered sequentially from the worst to the best.
SOURCE: U.S. Department HUD/FHA, October 2018.

The imbalance of risk and returns of the Forward book of business is slightly less pronounced than that of the overall MMIF, but still presents a significant downside risk. As shown in Exhibit II-18, for the Forward book, the second worst loss is 3.5 times larger than the second-best gain, and the fifth worst loss is 1.2 times larger than the fifth best gain.

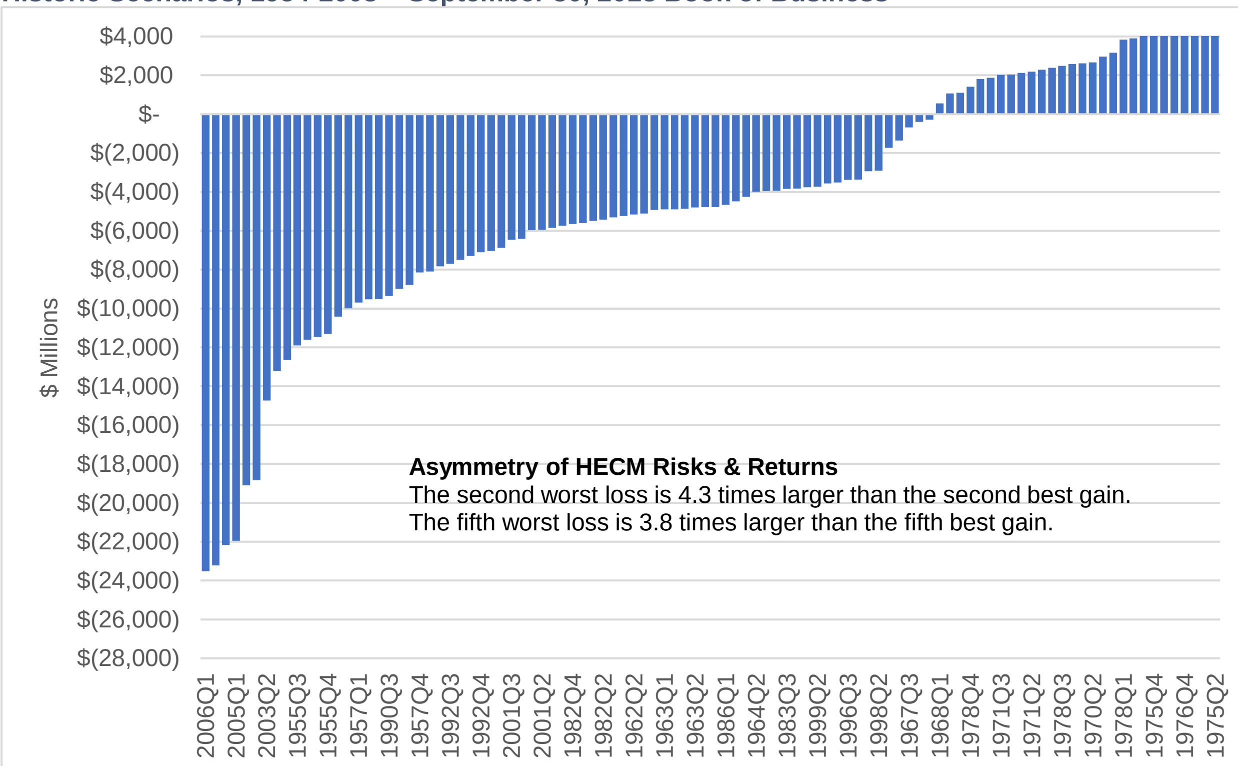
Exhibit II-18: Forward Mortgage Insurance Program Distribution of Cash Flow NPV through 100 Historical Scenarios, 1954-2008 – September 30, 2018 Book of Business



NOTE: The quarters are ordered sequentially from the worst to the best.
SOURCE: U.S. Department HUD/FHA, October 2018.

The imbalance of risk and returns to the HECM book of business is significantly greater than that of the MMIF or the Forward book, as reflected in Exhibit II-19. For the HECM book, the second worst loss is 4.3 times larger than the second-best gain, and the fifth worst loss is 3.8 times larger than the fifth best gain.

Exhibit II-19: HECM Mortgage Insurance Program Distribution of Cash Flow NPV through 100 Historic Scenarios, 1954-2008 – September 30, 2018 Book of Business



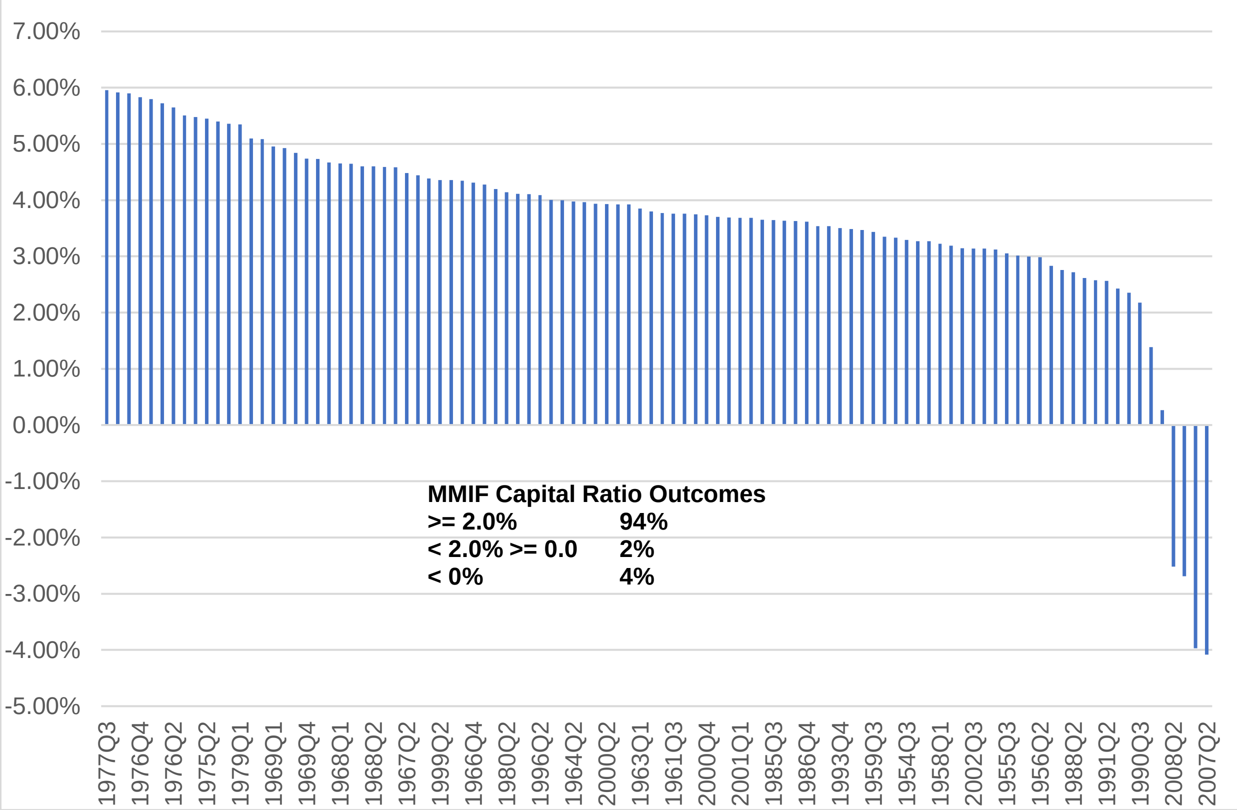
NOTE: The quarters are ordered sequentially from the worst to the best.
SOURCE: U.S. Department HUD/FHA, October 2018.

Capital Adequacy Testing: MMIF Capital Ratio Outcomes

In addition to examining the range of outcomes for Cash Flow NPV, capital adequacy testing evaluated the MMIF's capacity to maintain capital at or above two key thresholds – the 2.00 percent statutory minimum capital requirement and zero, the point at which the MMIF is at extreme risk of requiring a mandatory appropriation[48].

Test results indicate that with its current book of business and existing capital resources, the MMIF has sufficient Total Capital Resources to absorb the risks inherent in the 100 historical scenarios and maintain its Capital Ratio at or above the 2.00 percent statutory minimum in 94 outcomes. As shown in Exhibit II-20, the MMIF Capital Ratio would fall below 2.00 percent but remain at or above zero in two outcomes, and fall below zero in four outcomes.

Exhibit II-20: MMIF Capital Adequacy through 100 Historical Scenarios, 1954-2008 - September 30, 2018 Book of Business

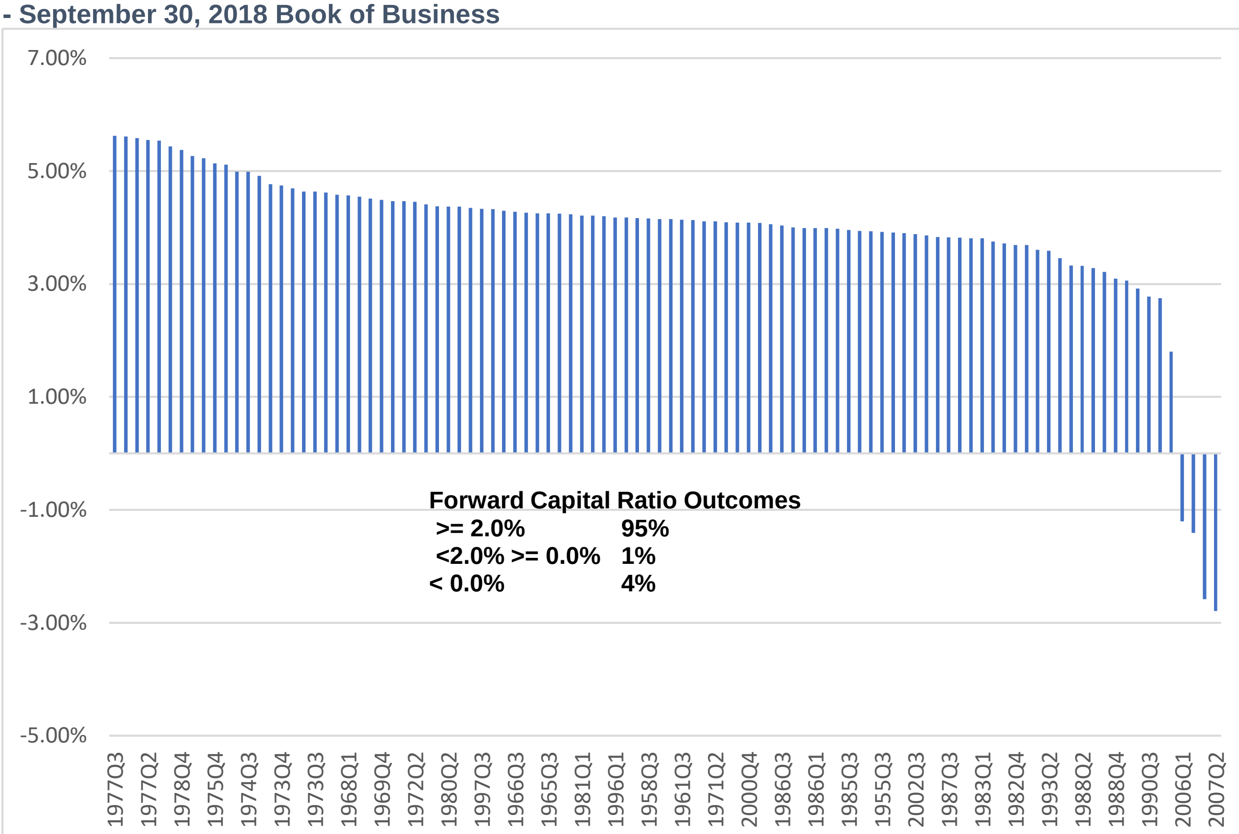


NOTE: The quarters are ordered sequentially from the best to the worst.
SOURCE: U.S. Department HUD/FHA, October 2018.

[48] A mandatory appropriation is required when an upward budget re-estimate exceeds the balance in the Capital Account rather than when the Capital Ratio falls below zero.

Exhibit II-21 shows that the Forward portfolio has enough stand-alone capital to absorb the risks inherent in the 100 historical scenarios and maintain its capital ratio at or above the statutory minimum requirement of 2.00 percent in 95 outcomes. The capital ratio would fall below 2.00 percent but remain at or above zero in one outcome, and fall below zero in four outcomes.

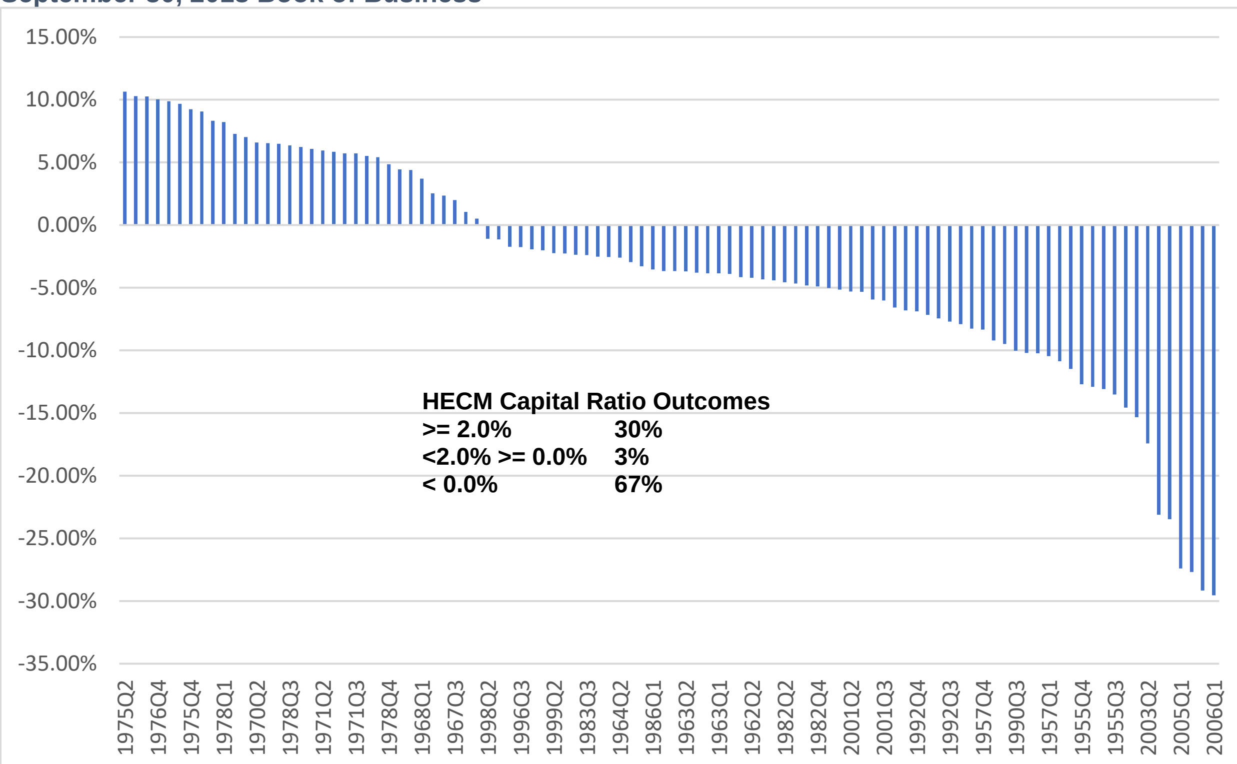
Exhibit II-21: Forward Stand-Alone Capital Adequacy through 100 Historical Scenarios, 1954-2008 - September 30, 2018 Book of Business



NOTE: The quarters are ordered sequentially from the best to the worst.
SOURCE: U.S. Department HUD/FHA, October 2018.

Exhibit II-22 illustrates that, as tested by 100 historical scenarios, the HECM portfolio has enough capital to absorb risks and maintain its capital ratio above the statutory minimum 2.00 percent requirement in 30 outcomes. The capital ratio would fall below 2.00 percent but remain at or above zero in three outcomes, and fall below zero in 67 outcomes.

Exhibit II-22: HECM Stand-Alone Capital Adequacy through 100 Historical Scenarios, 1954-2008 - September 30, 2018 Book of Business



NOTE: The quarters are ordered sequentially from the best to the worst.
SOURCE: U.S. Department HUD/FHA, October 2018.

Chapter III:
Federal Housing Administration Objectives

FHA conducts business by balancing its obligation to protect the Mutual Mortgage Insurance Fund (MMIF) and providing American taxpayers with affordable, sustainable homeownership opportunities to creditworthy borrowers. FHA operated throughout FY 2018 cognizant of this critical balance, and will continue to do so in FY 2019.

FHA's Significant Role in Disaster Recovery

The fall of 2017 marked one of the worst periods of natural disaster in the Nation's history. In the wake of Hurricanes Irma, Harvey, Maria, and the California wildfires and mudslides, FHA has played a significant role in relief and recovery efforts in affected areas, while taking immediate actions to protect FHA's assets and financial exposure. To assist homeowners with FHA-insured mortgages who live or work in Presidentially-Declared Major Disaster Areas (PDMDAs), FHA provided an initial 90-day moratorium on foreclosures for Forward mortgages, and subsequently extended the moratorium for an additional 90 days for properties located in certain PDMDAs receiving Individual Assistance within Hurricane Harvey, Irma, and Maria impacted areas.

Recognizing the substantial damage caused by Hurricane Maria, FHA further extended the foreclosure moratorium for 60 days for all borrowers and then, an additional 120 days for eligible borrowers in certain Individual Assistance areas within Hurricane Maria PDMDAs.

For HUD real-estate owned (REO) assets in affected areas, FHA moved quickly to conduct inspections and secure properties, assess damage, and safeguard these assets.

Further, FHA provided regulatory relief to lenders as they sought to work with their customers impacted by the disasters. Specifically, FHA waived its requirement that lenders perform quality control reviews for early payment default (EPD) mortgages in PDMDAs that went into default following the disaster, recognizing that the EPD was likely caused by the natural disasters rather than poor underwriting.

As these heavily impacted areas sought to recover from the disasters, FHA provided further regulatory relief by waiving policies that hindered access to mortgage credit or unnecessarily burdened borrowers, including the requirement that the re-inspection of properties located in a disaster area be inspected after FEMA's incident end date before a mortgage can close or be endorsed. Where FHA was able to determine that the threat of further property damage following the disaster had abated, FHA waived this requirement to allow inspections to take place even though FEMA's incident end date might not be announced until well after the disaster area had stabilized. This waiver avoided unnecessary delays in inspecting properties and getting financing into the hands of borrowers.

Additionally, FHA continues to make available up to 100 percent financing for disaster victims through its 203(h) Disaster Mortgage Insurance Program.

Enhanced Loss Mitigation for Borrowers Impacted by 2017 Disasters

Loss mitigation enables qualified borrowers to continue to reside in their homes, and may create a better financial outcome for FHA as loss mitigation is less costly to the MMIF than paying full mortgage insurance claims following foreclosure. FHA's primary focus was, and continues to be, getting delinquent FHA-insured borrowers in disaster areas into permanent loss mitigation solutions as quickly as possible.

To help facilitate expedited loss mitigation solutions in these disaster areas, FHA issued Mortgagee Letter 2018-01, *Loss Mitigation for Borrowers in the PDMDAs Adversely Impacted by Hurricanes Harvey, Irma, Maria and Certain California Wildfires* in February 2018. Mortgagee Letter 2018-01 authorized lenders to provide permanent loss mitigation solutions for FHA-insured homeowners who live or work in areas impacted by Hurricanes Harvey, Irma, and Maria as well as by the California wildfires and subsequent mudslides, and who had been provided with temporary loss mitigation post-disaster in the form of forbearance.

A forbearance allows borrowers to suspend or reduce mortgage payments for a period of time to help them get back on their feet. Mortgage Letter 2018-01 was designed to help address the debt that resulted from the forbearance through the establishment of the Disaster Standalone Partial Claim. The Disaster Standalone Partial Claim enables borrowers to resume their pre-disaster mortgage payment since they will not need to repay arrearages until they sell their home or refinance their mortgage. The Disaster Standalone Partial Claim amount is the total of the arrearages in an interest free subordinate mortgage loan. To qualify, borrowers had to be current with their mortgage payments when the disaster struck, their income must have been equal to or more than their pre-disaster income, and the property must have been owner-occupied.

Puerto Rico Update

FHA has a significant presence in Puerto Rico and plays a key role in creating access to mortgage credit in the Commonwealth. In FY 2017, FHA insured 48.7 percent of all purchase mortgages in the Commonwealth.[49] Due to the significant devastation caused by Hurricane Maria and FHA's prevalence in the island's mortgage market, FHA focused significant attention on the recovery of borrowers on the island.

After Hurricane Maria struck, FHA issued a policy waiver for Puerto Rico to allow borrowers to make greater use of FHA's Limited 203(k) Rehabilitation Mortgage Insurance Loan Program. Specifically, FHA waived the 15-day occupancy requirement for borrowers under the Limited 203(k) program, allowing borrowers to access the less burdensome Limited 203(k) program

[49] Home Mortgage Disclosure Act data collection from Calendar Year 2017.

because of the difficulty in finding contractors to complete needed repairs in the normal Limited 203(k) time frames.

As previously noted, FHA provided additional foreclosure moratorium extensions totaling 240 days from the date of the disaster declaration for all FHA borrowers, and an additional 120 days for borrowers meeting certain conditions in Hurricane Maria PDMDAs receiving Individual Assistance. FHA also extend the HECM foreclosure timelines from March 19, 2018 through September 15, 2018, in Individual Assistance Areas within Hurricane Maria PDMDAs.

Further, FHA revised its loss mitigation guidance in response to concerns that significant numbers of delinquent borrowers with well-seasoned mortgages averaging over 8 years, would not accept loan modifications in which the amortization period for their mortgage would be recast to a full thirty-year term. To respond to this concern, FHA issued Mortgagee Letter 2018-05, *Updated Loss Mitigation for Mortgagees Servicing Loans for Borrowers with FHA-insured Mortgages… Located in the PDMDAs of Puerto Rico and U.S. Virgin Islands,* in August 2018. Mortgagee Letter 2018-05 allows lenders to evaluate borrowers in affected areas for the Disaster Standalone Partial Claim before performing the loan modification review. This change is designed to get more FHA borrowers into permanent loss mitigation solutions while offsetting risks and costs to FHA. FHA expects to see an increase permanent loss mitigation uptake resulting from this policy change before it sunsets on May 1, 2019.

FHA continues to provide training and outreach to servicers to ensure they are understanding and complying with their obligations to timely perform loss mitigation in accordance with FHA policies. FHA also conducted outreach to borrowers, including through newspaper articles and press releases, to remind them of the importance of connecting with their mortgage servicer if they cannot make their mortgage payment. These efforts are aimed at getting delinquent borrowers into permanent, sustainable loss mitigation solutions as quickly as possible, thereby reducing the risk of loss to the MMIF.

Future Impact of Hurricanes and Other Natural Disasters

Between the natural disasters in the fall of 2017, and, more recently, in the aftermath of Hurricanes Florence and Michael, FHA remains vigilant in monitoring the impact of natural disasters on the MMIF. Likewise, FHA remains committed to ensuring the most effective loss mitigation policies are put in place following such disasters to ensure FHA’s exposure does not result in significant losses to the MMIF.

Strengthening the HECM Program

FHA’s Home Equity Conversion Mortgage (HECM) program has long provided a key financial resource for aging homeowners by providing seniors an opportunity to stay in their homes and age in place. To ensure the HECM program remains financially viable, FHA periodically makes adjustments to the HECM program, based on internal monitoring, evaluation, and analysis, as well as external research.

On August 29, 2017, FHA published revised initial and annual Mortgage Insurance Premium (MIP) rates and Principal Limit Factors (PLF) for all HECMs in Mortgagee Letter 2017-12, *Home Equity Conversion Mortgage (HECM) Program: Mortgage Insurance Premium Rates and Principal Limit Factors*. These changes were necessary to ensure the HECM program could operate on a self-sustaining basis without requiring an appropriated subsidy.

Under Mortgagee Letter 2017-12, the initial MIP rate changed to two percent (2.00%) of the Maximum Claim Amount (MCA). The initial MIP rate is applicable to all borrowers and is no longer associated with disbursements made to or on behalf of the borrower at closing or during the first 12-month disbursement period. The annual MIP rate was reduced to one-half of one percent (0.50%) of the outstanding mortgage balance.

Further, FHA revised PLFs with case numbers issued on or after October 2, 2017, in an effort to improve the financial condition of the HECM program. However, as a result of HECM endorsements with case numbers issued prior to October 2, 2017, the full impact from lower PLFs was not recognized until September 2018 when nearly 100 percent of new HECMs were endorsed under the new PLFs. As a result of the change, PLFs as a share of MCA declined through the course of FY 2018 from approximately 60 percent in October 2017 to slightly above 50 percent in September 2018. Lower PLFs as a share of MCA enable borrowers to maintain equity while reducing risk to the MMIF. (See Chapter I, Exhibit I-34).

HECM Appraisal Accuracy

During FY 2018, FHA became aware of concerns with the accuracy of appraisals used to originate HECMs. A comparison of over 80,000 HECMs endorsed between 2016 and 2018 strongly suggested that certain appraisals used in FHA's HECM program were overvaluing the collateral and generating inflated property appraised values. Over this period, 21 percent of the population had an appraisal that was 10 percent or more above the automated valuation model (AVM) estimate. Over the same period, nine percent of appraisals were inflated by 20 percent or more, and four percent of appraisals were inflated by more than 30 percent (see Exhibit I-39, Chapter 1.) An AVM is a tool that provides an alternative estimate of a property's value based upon its' characteristics and a broad database of historical home sale price data.

Due to the non-recourse nature of the HECM and the key role of the appraisal in determining the amount of principal to be made available to a borrower, FHA determined that the risk of loss resulting from an overvalued appraisal warranted the introduction of additional safeguards to prevent inflated appraisals from being used in connection with HECM transactions.[50]

On September 28, 2018, FHA published revised appraisal requirements in Mortgagee Letter 2018-06, *Home Equity Conversion Mortgage (HECM) Program – Changes to Appraisal Submission*

[50] Originating a HECM based on an inflated appraisal means that borrowers will be able to draw more based on the increased Principal Limit, leaving less equity in the property. This is a risky outcome for FHA because FHA pays a claim filed by a lender when the mortgage amount exceeds the appraised value of the property.

and Assessment for all HECM Originations. This Mortgagee Letter requires that a second appraisal be obtained where an FHA-performed collateral risk assessment of the first appraisal determines that additional support for the collateral valuation is required. The lender must use the lowest appraised value obtained in originating the HECM. The provisions of this Mortgagee Letter are effective for all HECM originations with FHA case numbers issued on or after October 1, 2018 through September 30, 2019. FHA will later determine if the appraisal review process should continue after FY 2019.

Downpayment Assistance Programs in Conjunction with FHA-insured Mortgages

FHA continues to review the risks, benefits, and policy considerations of downpayment assistance (DPA) programs used in connection with FHA-insured mortgages.

To qualify a mortgage for FHA mortgage insurance, the homebuyer is required to meet the 3.5 percent downpayment minimum. FHA permits the borrower to receive a gift or utilize secondary financing from permissible governmental entities— i.e., Federal, State, and local entities and their agencies and instrumentalities – to satisfy the 3.5 percent minimum cash investment requirement, provided that the source does not constitute a “prohibited source” under section 203(b)(9)(c) of the National Housing Act (NHA).

The “prohibited source” provision came about after a lengthy attempt by FHA to restrict the damaging seller-funded downpayment programs in operation between 2000 and 2008. According to an Actuarial report on FHA’s Forward mortgages from fiscal year 2016, the high claim rates for mortgages with seller-funded downpayment assistance contributed negative $16.50 billion to the economic value of the MMIF as of the end of FY 2016. [51] The passage of the Housing and Economic Recovery Act (HERA), amending NHA section 203(b)(9)(c), prohibited the endorsement of seller-funded downpayment assistance after October 1, 2008. While NHA section 203(b)(9)(c) put an end to seller-funded DPA programs, currently, FHA is concerned that certain entities may be interpreting the statute more broadly than intended by Congress, and creating riskier DPA programs that are of concern to FHA given the risk posed to the MMIF.

FHA began more closely reviewing DPA programs in light of recent data that reflects increasing exposure and risk due to insuring mortgages with certain types of DPA. FHA recognizes the value of DPA in promoting access to mortgage credit but must manage the risk, in light of its fiduciary responsibility to the MMIF. Purchase endorsements with DPA now represent 37.55 percent of all purchase endorsements, with 11.39 percent of those from self-identified government entities. From 2010 to 2018, early payment defaults (EPDs) were higher for mortgages with DPA than for mortgages with no DPA. In first quarter 2018, the EPD rate for

[51] Actuarial Review of the Federal Housing Administration Mutual Mortgage Insurance Fund Forward Loans for Fiscal Year 2016, U.S. Department of Housing and Urban Development, November 15, 2016. https://www.hud.gov/sites/documents/ACTUARIALMMIFFORWARD2016.PDF

mortgages with DPA was 0.69 percent, and for mortgages without DPA it was 0.42 percent. For mortgages originated from 2011 to 2015, the serious delinquency (SDQ) rate for mortgages with downpayment assistance provided by self-identified governments is much higher. SDQ rates tend to rise as mortgages season. In 2014, mortgages with self-identified government DPA had an SDQ rate of 7.37 percent as compared to mortgages with no DPA that had an SDQ rate of 4.3 percent. (See Exhibit I-19 in Chapter 1.)

Barriers to Resolution of Downpayment Assistance Concerns

HERA amended the NHA to prohibit DPA where such assistance is provided by a "prohibited source," which includes the property seller or other party that financially benefits from the transaction.

HUD has observed that certain entities continue the practice of interpreting the provision broadly to implement DPA programs that increase risk to the MMIF. FHA is concerned that certain entities are now operating these DPA programs on a nationwide basis and in ways that generate benefits for the provider that do not appear to comport with the intent of the "prohibited source" provision. These programs also appear to increase costs, but not benefits, to the borrower and put the MMIF at an unreasonable risk.

HUD believes that greater clarity and certainty as to the meaning of "prohibited sources" and indeed, when an entity may be said to "financially benefit from the transaction," is necessary to ensure the future safety and soundness of the MMIF. Without swift and decisive action to address these programs, FHA may be unable to avoid the types of losses that it previously experienced with seller-funded downpayment assistance.

Lender Enforcement and the Role of the Mortgagee Review Board

The Mortgagee Review Board (MRB) is responsible for the oversight and sanctioning of mortgagees (lenders) that conduct business with FHA. FHA and the MRB continues to take strong enforcement actions against lenders who defraud borrowers and taxpayers or make routine, material errors that strain FHA's resources. To address lender misconduct, the MRB may impose civil money penalties (CMPs) and a range of administrative sanctions, including letters of reprimand, suspension of approval, probation, and withdrawal of approval. Over the course of FY 2018, the MRB assessed $28.1 million in CMPs for violations of FHA program requirements related to underwriting, quality control, program fraud, annual recertification requirements, and other egregious violations of FHA requirements.

In order to enhance its enforcement regime, FHA has begun revising its defect taxonomy, which makes clear the various defect categories and how FHA views the severity of each defect. FHA is also revising certifications which lenders attest to for each FHA loan as well as lenders' annual certifications. These revisions will provide lenders additional certainty and clarity on FHA's requirements, and help FHA quickly recognize when lenders are failing to meet those requirements.

FHA supports changes that would give the MRB additional authorities under the law. Currently, FHA has statutory limitations which result in the MRB's limited use of administrative sanctions authority set forth in 12 U.S.C. § 1708(c) for serious and material violations of FHA's requirements. For example, the limitations placed on CMP authorities for each independent violation and annual cap found in § 1735-f-14(a)(2)(e) often disincentivize compliance with FHA requirements where the cost of the penalty that may be imposed is less than the cost to the lender of compliance with the requirements. FHA recommends a statutory change to increase the limit for CMP authorities beginning with a minimum of one month with no cap.

In addition, one of FHA's enforcement tools authorizes the MRB to suspend a lender's approval under certain prohibited circumstances, but its effectiveness is limited. § 1708(c) requires suspensions to be no less than six months and no longer than one year, while allowing for an additional six-month extension if in the public interest. The six-month minimum requirement creates a disincentive to its use, particularly when the sanction could put the lender out of business and further limit borrowers' access to credit. This remedy could be deployed more readily to ensure violations are cured, without causing lasting negative consequences, if the MRB had more flexible suspension authority.

Finally, the duration and utility of the MRB's probationary authority is severely constrained. More robust and flexible probation authority could allow the MRB to place targeted limits on a lender's loan production and servicing volume for a period of time, helping to mitigate risks to the MMIF posed by the lender's non-compliance. This flexibility could help the MRB ensure lenders take compliance seriously.

The MRB will continue to take responsible and appropriate enforcement actions against FHA-approved lenders to ensure program compliance and protect taxpayers, within the statutory limitations on MRB sanctions and CMP authorities. A strong MRB with robust and flexible enforcement tools could better serve the interests of the FHA program, in some instances, than False Claims Act litigation that may curb participation by compliant lenders deciding to withdraw from the program altogether.

Lenders who lend responsibly and adhere to FHA policies should feel confident about participating in FHA programs. Participation by a well-diversified group of lenders not only protects the MMIF and taxpayers from undue losses, but it also ensures that borrowers ready for homeownership have a range of reliable choices for accessing FHA-insured mortgage credit.

Appendix A:
Data Tables for Annual Report Overview

Table A-1: Data Table for Exhibit O-2: FHA Single Family Mortgages-in-Force

Endorsement Fiscal Year	Insurance-in-Force ($ Billions)	Mortgages In Force ($ 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

SOURCE: U.S. Department of HUD/FHA, October 2018.

Table A-2: Data Table for Exhibit O-3: FHA Market Share (Percentage of Dollar Volume)

Calendar Year	Purchase	Refinance	All
2000	9.90	3.20	8.60
2001	10.20	5.80	8.20
2002	8.50	3.20	5.40
2003	6.40	2.60	3.70
2004	4.40	2.00	3.20
2005	2.60	1.10	1.90
2006	2.70	1.30	2.00
2007	3.90	2.90	3.40
2008	19.50	12.90	16.10
2009	28.10	12.80	17.90
2010	27.40	8.60	14.90
2011	25.32	6.46	13.09
2012	21.28	7.38	11.38
2013	15.94	7.84	11.07
2014	13.83	5.62	10.56
2015	16.74	10.60	13.90
2016	17.43	8.98	13.40
2017	15.38	9.89	13.45
2018	13.40	9.40	12.10

NOTE: Originations based on beginning amortization dates. Includes all conventional and government single family forward originations. 2018 Market Share calculated through June 30, 2018

SOURCE: U.S. Department of HUD as of October 6, 2018, Mortgage Bankers Association of America, “MBA Mortgage Finance Forecast,” September 2018, and Corelogic TrueStandings ® as of October 6, 2018.

Appendix B: Data Tables for Chapter I

Table B-1: Data Table for Exhibit I-1: Historical FHA Forward Mortgage Endorsement Activity and Exhibit I-2: Recent FHA Forward Endorsement Activity by Mortgage Transaction Type

Endorsement Fiscal Year	Mortgage Amount ($ Billions)	FHA Forward Endorsed Mortgage Counts			
		Purchase	FHA Streamline Refinance	Other FHA Refinance	Conventional-to-FHA Refinance
2000	94.22	839,870	34,443	6,780	32,007
2001	117.69	806,818	188,422	17,230	46,207
2002	148.10	862,899	318,245	28,525	64,475
2003	159.24	658,640	560,891	37,504	62,694
2004	115.98	586,110	291,483	26,147	56,695
2005	62.36	353,845	113,062	11,840	33,580
2006	55.30	313,998	36,374	14,722	60,397
2007	59.84	278,395	22,087	16,504	107,738
2008	181.17	631,656	66,772	28,510	360,455
2009	330.49	995,550	329,436	38,071	468,941
2010	297.60	1,109,582	212,896	39,602	305,530
2011	217.81	777,427	180,265	44,559	195,559
2012	213.30	733,864	274,059	47,596	129,221
2013	240.12	702,415	511,843	39,088	91,500
2014	135.22	594,998	115,038	20,962	55,354
2015	213.12	753,387	232,811	50,018	80,014
2016	245.41	879,513	210,629	60,443	107,465
2017	250.96	882,080	161,308	76,171	126,879
2018	209.05	776,284	51,256	77,610	109,459

SOURCE: U.S. Department of HUD/FHA, October 2018.

Table B-2: Data Table for Exhibit I-3: Historical FHA Purchase Mortgage Activity and First-Time Homebuyer Share

Endorsement Fiscal Year	FHA Forward Mortgages (Thousands)			Percent of First-Time Purchase	Average Age of First-Time Homebuyer
	First-Time Buyer	Repeat Buyer	Purchase Total		
2000	685.00	154.87	839.87	81.56	33.63
2001	643.64	163.18	806.82	79.78	33.49
2002	683.58	179.32	862.90	79.22	33.32
2003	521.72	136.92	658.64	79.21	33.17
2004	454.24	131.87	586.11	77.50	33.53
2005	280.08	73.76	353.85	79.15	33.76
2006	248.88	65.11	314.00	79.26	33.67
2007	221.47	56.92	278.40	79.55	34.27
2008	492.29	139.37	631.66	77.94	34.68
2009	781.68	213.87	995.55	78.52	34.75
2010	882.10	227.48	1109.58	79.50	34.92
2011	585.01	192.42	777.43	75.25	35.68
2012	569.83	164.04	733.86	77.65	35.73
2013	553.08	149.34	702.42	78.74	36.05
2014	483.05	111.95	595.00	81.19	36.95
2015	614.31	139.07	753.39	81.54	37.29
2016	722.07	157.44	879.51	82.10	37.58
2017	725.22	156.86	882.08	82.22	37.94
2018	641.92	134.36	776.28	82.69	38.12

SOURCE: U.S. Department of HUD/FHA, October 2018.

Table B-3: Data Table for Exhibit I-4: 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	19.17	57.72	6.23
2001	0.40	1.86	13.48	18.24	57.67	8.36
2002	0.40	1.78	12.86	17.62	57.15	10.18
2003	0.41	1.66	12.60	16.42	58.52	10.40
2004	0.60	2.19	13.89	16.43	58.58	8.32
2005	0.51	2.92	14.95	15.31	61.89	4.42
2006	0.52	3.11	13.77	11.97	66.03	4.60
2007	0.55	2.09	14.84	11.48	65.99	5.04
2008	0.45	2.11	13.32	10.99	65.71	7.42
2009	0.42	2.75	9.86	11.49	66.78	8.71
2010	0.39	3.41	9.01	12.02	67.15	8.03
2011	0.35	3.59	8.08	12.98	67.27	7.73
2012	0.36	3.71	8.07	13.51	66.83	7.52
2013	0.37	3.42	8.75	14.13	65.66	7.66
2014	0.41	3.27	10.87	17.09	61.34	7.01
2015	0.43	3.35	10.40	17.37	60.19	8.26
2016	0.39	3.14	10.91	17.50	58.86	9.20
2017	0.41	3.02	11.70	18.15	57.13	9.60
2018	0.36	2.60	12.63	18.18	55.53	10.71

SOURCE: U.S. Department of HUD/FHA, October 2018.

Table B-4: Data Table for Exhibit I-5: Historical FHA Forward Endorsement Activity by Mortgage Purpose

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	455,737	na	1,087,393
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	879,513	279,589	98,948	1,258,050
2017	882,080	222,473	141,885	1,246,438
2018	776,284	87,442	150,883	1,014,609

NOTE: Cash-Out Refinance data is not available prior to FY 2009.
SOURCE: U.S. Department of HUD/FHA, October 2018.

Table B-5: Data Table for Exhibit I-6: FHA Endorsement Activity by Refinance Type

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

SOURCE: U.S. Department of HUD/FHA, October 2018.

Table B-6: Data Table for Exhibit I-7: Average FHA Forward Loan-to-Value Ratio by Mortgage Purpose

Endorsement Fiscal Year	Purchase	Conventional Loan Refinance	FHA-to-FHA Refinance[1]
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	86.94
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

NOTE: In accordance with statutory requirements for determining eligibility of loans for FHA insurance, HUD measures loan-to-value (LTV) without including any mortgage insurance premium financed in the loan balance.
[1]These include only fully-underwritten mortgages and exclude streamline refinancing.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-7: Data Table for Exhibit I-8: Average Borrower Credit Score for FHA Endorsed Mortgages

Endorsement 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	672	666	661	670

NOTE: Borrower Credit Score data was not collected prior to FY 2005. This table does not include streamline refinance mortgages.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-8: Data Table for Exhibit I-9: Distribution of FHA Borrower Credit Score by Fiscal Year

Endorsement Fiscal Year	FHA Forward Refinance Mortgage Counts					
	720 or Higher	680-719	620-679	580-619	Less than 579	Missing
2005	11.23	11.30	31.99	21.17	16.94	7.37
2006	12.38	11.63	32.97	21.18	16.38	5.47
2007	9.81	9.68	30.97	23.42	21.40	4.72
2008	14.42	12.93	35.08	21.20	13.82	2.55
2009	27.19	19.90	37.54	11.50	2.71	1.16
2010	34.19	22.56	38.31	3.30	0.48	1.16
2011	35.73	23.64	36.84	2.62	0.22	0.96
2012	32.66	24.27	39.60	2.70	0.21	0.58
2013	27.29	26.89	43.48	1.72	0.16	0.46
2014	18.31	26.50	51.57	3.13	0.18	0.31
2015	18.05	26.15	50.25	5.06	0.24	0.25
2016	18.77	25.99	49.25	5.56	0.26	0.18
2017	17.51	24.83	49.73	7.33	0.44	0.16
2018	14.40	22.45	51.79	10.38	0.83	0.16

NOTE: Borrower Credit Score data was not collected prior to FY 2005 and does not include streamline refinance mortgages.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-9: Data Table for Exhibit I-10: Borrower Debt-to-Income (DTI) 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	26.02	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

SOURCE: US Department of HUD/FHA, October 2018.

Table B-10: Data Table for Exhibit I-11: FHA Purchase Activity by Type of Downpayment Assistance (DPA)

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	7.8	22.19	0.4	69.61
2013	7.08	22.47	0.4	70.05
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

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 2018.

Table B-11: Data Table for Exhibit I-12: Lender Type for FHA Endorsement Activity

Endorsement Fiscal Year	Share of FHA Forward Endorsed Mortgages		
	Other	Non-Depository	Depository
2000	1.64	70.61	27.75
2001	1.45	69.67	28.88
2002	1.07	70.22	28.71
2003	1.00	73.50	25.50
2004	0.81	68.56	30.62
2005	1.05	66.23	32.73
2006	0.91	65.93	33.16
2007	0.38	69.92	29.70
2008	0.17	60.56	39.26
2009	0.15	59.50	40.35
2010	0.15	56.27	43.58
2011	0.09	58.25	41.67
2012	0.05	65.38	34.57
2013	0.06	66.12	33.82
2014	0.09	73.70	26.22
2015	0.07	80.36	19.56
2016	0.07	83.52	16.40
2017	0.08	85.83	14.09
2018	0.10	86.55	13.35

NOTE**:** This table does not include streamline refinance mortgages.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-12: Data Table for Exhibit I-13: FY 2017 FHA Forward Endorsement Concentration by State

State	Share of FHA Endorsed Forward Mortgages	
	Endorsement Fiscal Year	
	2017	2018
Alabama	1.54	1.60
Alaska	0.17	0.15
Arizona	3.43	3.24
Arkansas	0.80	0.87
California	10.53	9.13
Colorado	2.78	2.58
Connecticut	1.03	1.04
Delaware	0.40	0.42
District of Columbia	0.08	0.07
Florida	7.86	8.68
Georgia	4.40	4.64
Hawaii	0.09	0.10
Idaho	0.71	0.73
Illinois	3.54	3.61
Indiana	2.60	2.83
Iowa	0.59	0.60
Kansas	0.80	0.79
Kentucky	1.33	1.36
Louisiana	1.26	1.33
Maine	0.29	0.33
Maryland	2.72	2.54
Massachusetts	1.46	1.44
Michigan	3.07	3.04
Minnesota	1.67	1.56
Mississippi	0.75	0.81
Missouri	2.17	2.15
Montana	0.24	0.26
Nebraska	0.49	0.49
Nevada	1.69	1.39
New Hampshire	0.43	0.43
New Jersey	2.79	2.80
New Mexico	0.67	0.74
New York	2.94	2.85
North Carolina	2.50	2.62
North Dakota	0.18	0.19
Ohio	3.76	3.84
Oklahoma	1.13	1.26
Oregon	1.21	1.23
Pennsylvania	3.57	3.68
Puerto Rico	0.58	0.46
Rhode Island	0.46	0.48
South Carolina	1.68	1.82
South Dakota	0.19	0.21
Tennessee	2.49	2.68
Texas	8.40	8.61
Utah	1.64	1.53
Vermont	0.08	0.09
Virgin Islands	0.00	0.00
Virginia	2.78	2.69
Washington	2.36	2.27
West Virginia	0.32	0.37
Wisconsin	1.16	1.09
Wyoming	0.20	0.23
Alabama	1.54	1.60

SOURCE: US Department of HUD/FHA, October 2018.

Table B-13: Data Table for Exhibit I-14: FHA Endorsement Activity by Property Type

Endorsement Fiscal Year	FHA Endorsed Forward Mortgages				
	Detached	Townhome	Condominium	2-4 Unit	Manufactured Homes
2000	730,117	59,353	68,439	30,784	24,407
2001	853,370	62,492	85,378	32,613	24,824
2002	1,035,292	68,117	95,596	35,437	39,702
2003	1,107,141	56,092	93,498	30,972	32,026
2004	795,708	46,757	61,644	21,272	35,054
2005	414,981	23,961	30,023	9,539	33,823
2006	332,710	22,756	21,813	6,295	41,917
2007	329,679	23,293	18,213	6,648	46,891
2008	904,060	63,729	48,153	14,862	56,589
2009	1,575,882	90,696	97,073	25,256	43,091
2010	1,426,359	92,513	93,390	26,700	28,648
2011	1,044,608	57,804	54,607	21,310	19,481
2012	1,051,069	48,456	44,900	20,838	19,477
2013	1,194,309	45,283	57,507	23,556	24,191
2014	689,413	38,103	23,146	16,367	19,323
2015	984,945	51,724	31,686	23,079	24,796
2016	1,104,867	64,068	34,035	25,452	29,628
2017	1,086,170	69,861	30,696	27,216	32,495
2018	875,912	62,568	20,630	24,260	31,239

SOURCE: US Department of HUD/FHA, October 2018.

Table B-14: Data Table for Exhibit I-16: FHA Early Payment Default Rates by Mortgage Purpose

Amortization Fiscal Year	FHA Endorsed Forward Mortgages		
	Purchase	Refinance	All
2000	0.21	0.20	0.21
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	0.49	0.32	0.44

NOTE: FY2018 is through April 2018.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-15: Data Table for Exhibit I-17: Historical Serious Delinquency Rates for FHA Mortgages

End of Month	Rate
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

NOTE: SDQ Rate is the percentage of FHA-insured mortgages where the borrower is 90 or more days delinquent, including mortgages in foreclosure and bankruptcy.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-16: Data Table for Exhibit I-18: Early Payment Default Rate of FHA Purchase Mortgages by Downpayment Assistance

Beginning Amortization Quarter	Early Payment Default 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	0.69	0.42

SOURCE: US Department of HUD/FHA, October 2018.

Table B-17: Data Table for Exhibit I-19: Serious Delinquency Rate of FHA Purchase Mortgages by Downpayment Assistance (DPA) Type as of September 30, 2018

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	12.67	9.34	7.6	5.2
2012	10.11	8.79	6.39	4.48
2013	8.22	6.03	5.52	4.18
2014	7.37	5.05	5.68	4.3
2015	6.01	4.53	5.53	3.99
2016	4.29	4.06	4.62	3.16
2017	3.12	3.08	3.47	2.21
2018	0.74	0.69	0.7	0.43

NOTE: SDQ Rate is the percentage of FHA-insured mortgages where the borrower is 90 or more days delinquent, including mortgages in foreclosure and bankruptcy.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-18: Data Table for Exhibit I-20: FHA Early Payment Default Rates for Hurricane-Affected (FL, PR, USVI, and TX) and non-Affected States

Beginning Amortization Month	Hurricane Affected States	Non-Affected States	Overall
Jan-15	0.38	0.39	0.39
Feb-15	0.42	0.38	0.39
Mar-15	0.28	0.31	0.30
Apr-15	0.44	0.35	0.37
May-15	0.40	0.35	0.36
Jun-15	0.39	0.40	0.40
Jul-15	0.29	0.46	0.43
Aug-15	0.41	0.44	0.43
Sep-15	0.32	0.33	0.32
Oct-15	0.24	0.32	0.31
Nov-15	0.26	0.29	0.29
Dec-15	0.24	0.32	0.31
Jan-16	0.26	0.29	0.29
Feb-16	0.36	0.33	0.33
Mar-16	0.38	0.35	0.36
Apr-16	0.31	0.39	0.37
May-16	0.42	0.45	0.45
Jun-16	0.46	0.44	0.44
Jul-16	0.41	0.47	0.46
Aug-16	0.40	0.44	0.44
Sep-16	0.31	0.34	0.33
Oct-16	0.24	0.28	0.28
Nov-16	0.32	0.28	0.29
Dec-16	0.26	0.28	0.28
Jan-17	0.34	0.33	0.33
Feb-17	0.35	0.35	0.35
Mar-17	0.32	0.39	0.38
Apr-17	0.73	0.46	0.51
May-17	2.94	0.54	0.97
Jun-17	6.08	0.58	1.56
Jul-17	6.31	0.60	1.59
Aug-17	5.55	0.58	1.45
Sep-17	3.87	0.52	1.08
Oct-17	0.82	0.44	0.49
Nov-17	0.43	0.41	0.42
Dec-17	0.43	0.41	0.41
Jan-18	0.43	0.47	0.46
Feb-18	0.36	0.45	0.43

SOURCE: US Department of HUD/FHA, October 2018.

Table B-19: Data Table for Exhibit I-21: Serious Delinquency Rate for FHA Mortgages in Selected Hurricane-Affected States/Territories

End of Month	US State/Territory				All States
	Florida	Puerto Rico	U.S. Virgin Islands	Texas	
Sep-16	4.36	7.16	8.08	4.12	4.92
Oct-16	4.30	7.67	8.08	4.19	4.91
Nov-16	4.24	7.79	8.01	4.26	4.94
Dec-16	4.25	7.67	7.49	4.35	5.00
Jan-17	4.21	7.74	7.45	4.36	4.96
Feb-17	3.99	7.64	7.41	4.10	4.81
Mar-17	3.78	7.55	7.38	3.85	4.54
Apr-17	3.68	7.60	6.87	3.80	4.47
May-17	3.55	7.48	6.85	3.68	4.36
Jun-17	3.43	7.52	7.39	3.63	4.29
Jul-17	3.43	7.55	6.78	3.67	4.20
Aug-17	3.39	7.57	6.91	3.67	4.24
Sep-17	3.55	8.50	7.76	3.92	4.32
Oct-17	3.96	9.40	8.80	4.36	4.42
Nov-17	6.90	12.76	15.19	5.64	4.83
Dec-17	9.35	21.77	19.27	5.89	5.19
Jan-18	9.49	18.95	18.87	5.93	5.18
Feb-18	9.06	17.94	17.68	5.72	5.06
Mar-18	8.32	12.33	15.90	5.29	4.66
Apr-18	7.86	14.08	14.75	5.06	4.54
May-18	6.97	12.52	14.21	4.78	4.35
Jun-18	6.15	12.12	14.15	4.53	4.28
Jul-18	5.24	11.33	12.71	4.18	4.08
Aug-18	4.66	10.75	13.76	4.05	4.11
Sep-18	4.23	10.45	12.39	3.99	4.11

SOURCE: US Department of HUD/FHA, October 2018.

Table B-20: Data Table for Exhibit I-22: FHA Loss Severity and Claim Count by Disposition Type

Claim Fiscal Year	Insurance-in-Force	FHA Claim Disposition Type				Loss Severity Rate
		REO	Note Sales/ Distressed Asset Sales Program[a]	Third Party Sales[c]	Pre-Foreclosure Sales	
2007	3,892,440	48,362		1,762	4,026	42.21
2008	3,737,757	45,761		1,040	4,071	49.46
2009	4,375,866	67,488		2,283	6,474	63.08
2010	5,527,609	87,297	125	1,419	15,291	60.85
2011	6,883,859	82,303	1,606	1,714	25,069	63.72
2012	7,288,440	102,946	1,153	4,644	36,740	61.81
2013	7,711,684	111,282	35,021	10,672	34,565	57.60
2014	7,810,422	73,648	40,748	26,782	24,706	52.34
2015	7,787,092	60,086	19,978	22,042	13,980	51.51
2016	7,742,143	57,173	12,249	33,173	12,694	53.90
2017	7,838,495	43,337	5,552	44,825	8,755	49.92
2018[b]	8,048,639	23,765	67	45,024	5,652	43.58

[a]De minimus note sales may be reflected in the table above in which final resolution may result in an alternative disposition type.
[b] Data through August 31, 2018, includes funds outside of MMIF.
[c] Includes outbids.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-21: Data Table for Exhibit I-23: Annual FHA Claims as a Share of Initial Insurance-in-Force (IIF)

Claim Fiscal Year	FHA Forward Mortgage Count		Share of Mortgage Count	Insurance-in-Force ($ Billions)		Share of IIF
	Mortgage Claims	Active Mortgages (End-of-FY)		Mortgage Claims[b]	Active Mortgages (End-of FY)	
2007	54,150	3,737,757	1.45	4.94	342.6	1.44
2008	50,872	4,375,866	1.16	5.14	474.4	1.08
2009	76,245	5,527,609	1.38	8.17	697.3	1.17
2010	104,132	6,883,859	1.51	12.91	947.8	1.36
2011	110,692	7,288,440	1.52	15.40	1,015.20	1.52
2012	145,483	7,711,684	1.89	20.79	1,083.30	1.92
2013	191,540	7,810,422	2.45	28.14	1,097.40	2.56
2014	165,884	7,787,092	2.13	24.60	1,083.50	2.27
2015	116,086	7,742,143	1.50	15.77	1,072.80	1.47
2016	115,289	7,838,495	1.47	15.19	1,106.30	1.37
2017	102,469	7,982,070	1.28	13.29	1,158.80	1.15
2018[a]	74,508	8,048,639	0.93	9.58	1,196.30	0.80

[a] Data through August 31, 2018, includes funds outside of MMIF.
[b] Includes outbids.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-22: Data Table for Exhibit I-24: Recent FHA Loss Mitigation Activity

Assisted Cure Fiscal Year	Type of FHA Loss Mitigation Assistance		
	Deeper Assistance	Limited Assistance	All Assisted Cures
2010	165,223	126,457	291,680
2011	161,424	217,801	379,225
2012	97,573	256,058	353,631
2013	160,802	299,792	460,594
2014	179,559	294,390	473,949
2015	148,548	289,481	438,029
2016	117,425	291,313	408,738
2017	116,058	243,484	359,542
2018	117,114	334,959	452,073

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: US Department of HUD/FHA, October 2018.

Table B-23: Data Table for Exhibit I-25: FHA HECM Endorsement Activity

Endorsement Fiscal Year	Home Equity Conversion Mortgages (HECM)						
	Mortgage Product Type		Mortgage Purpose Type			All Mortgages	Maximum Claim Amount ($ Billions)
	Fixed Rate	Adjustable Rate	Purchase	Refinance	Traditional		
2009	13,311	101,111	559	8,970	104,893	114,422	30.07
2010	54,471	24,588	1,389	4,836	72,834	79,059	21.07
2011	49,741	23,371	1,538	2,737	68,837	73,112	18.21
2012	38,046	16,769	1,627	1,447	51,741	54,815	13.16
2013	36,331	23,593	2,091	1,834	55,999	59,924	14.68
2014	9,638	41,978	1,825	2,406	47,385	51,616	13.52
2015	9,132	48,858	2,411	5,571	50,008	57,990	16.13
2016	5,201	43,667	2,367	5,398	41,103	48,868	14.66
2017	5,715	49,576	2,633	8,016	44,642	55,291	17.69
2018	4,903	43,424	2,615	5,860	39,852	48,327	16.19

SOURCE: US Department of HUD/FHA, October 2018.

Table B-24: Data Table for Exhibit I-26: Current HECM Portfolio by Year of Endorsement

Endorsement Fiscal Year	HECM	Maximum Claim Amount ($ Billions)	Current Principal Limit ($ Billions)	Insurance-in-Force ($ Billions)
2009	54,233	13.99	13.43	11.95
2010	29,270	7.62	7.34	6.66
2011	31,462	7.82	7.31	6.65
2012	29,918	7.13	6.73	6.14
2013	39,828	9.61	8.79	7.89
2014	34,796	8.88	6.68	5.58
2015	42,856	11.65	8.36	6.75
2016	40,671	12.09	8.40	6.45
2017	51,751	16.52	10.94	8.08
2018	47,659	15.96	9.22	6.22
Total	402,444	111.34	87.13	72.41

SOURCE: US Department of HUD/FHA, October 2018.

Table B-25: Data Table for Exhibit I-27: 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		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	34,170,497	5,694,395,757

NOTE: 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. 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 2018.

Table B-26: Data Table for Exhibit I-28: Average Maximum Claim Amount for FHA-Endorsed HECM

Endorsement Fiscal Year	HECM	Average MCA	Total MCA Endorsed
2009	114,422	262,831	30,073,704,789
2010	79,059	266,561	21,074,055,164
2011	73,112	249,130	18,214,390,353
2012	54,815	240,144	13,163,497,360
2013	59,924	245,002	14,681,513,392
2014	51,616	261,948	13,520,725,085
2015	57,990	278,145	16,129,647,170
2016	48,868	300,000	14,660,391,431
2017	55,291	319,962	17,691,003,482
2018	48,327	334,989	16,189,001,840

SOURCE: US Department of HUD/FHA, October 2018.

Table B-27: Data Table for Exhibit I-29: Composition of FHA HECM Borrowers

Endorsement Fiscal Year	Total Maximum Claim Amount ($)			
	Singular Male Borrower	Singular Female Borrower	Multiple Borrowers	Not Disclosed
2009	6,471,093,832	11,600,799,284	11,808,457,688	193,353,985
2010	4,433,998,153	8,428,054,218	7,884,463,061	327,539,732
2011	3,753,706,111	6,977,797,270	7,133,283,642	349,603,330
2012	2,739,922,695	4,893,519,689	5,167,868,762	362,186,214
2013	3,051,554,296	5,258,176,180	6,011,352,648	360,430,268
2014	2,734,569,178	5,084,165,279	5,435,312,121	266,678,507
2015	3,430,714,558	6,049,076,408	6,531,139,207	118,716,997
2016	3,057,489,319	5,285,678,945	6,251,615,542	65,607,625
2017	3,569,729,927	6,471,586,796	7,468,281,634	181,405,125
2018	3,205,865,094	5,898,839,946	6,677,120,361	407,176,439

SOURCE: US Department of HUD/FHA, October 2018.

Table B-28: Data Table for Exhibit I-30: Average Borrower Age at Endorsement for FHA HECMs

Endorsement Fiscal Year	HECM	Average Borrower Age
2009	114,422	73.0
2010	79,059	73.0
2011	73,112	72.3
2012	54,815	72.1
2013	59,924	71.8
2014	51,616	72.0
2015	57,990	72.3
2016	48,868	73.0
2017	55,291	73.2
2018	48,327	73.3

NOTE: The FY 2017 Annual Report used current age of HEM borrower, whereas the FY 2018 Annual Report uses age of borrower at time of endorsement.
SOURCE: US Department of HUD/FHA, October 2018.

Table B-29: Data Table for Exhibit I-31: FHA HECM Endorsement Activity by Mortgage Purpose

Endorsement Fiscal Year	Share of Total Maximum Claim Amount (MCA)		
	Purchase	Refinance	Traditional
2009	0.47	11.89	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	4.92	17.11	77.97
2018	5.52	14.39	80.09

SOURCE: US Department of HUD/FHA, October 2018.

Table B-30: Data Table for Exhibit I-32: 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	0.82	86.38	12.80
2010	0.03	35.09	64.89
2011	0.01	36.96	63.03
2012	0.01	34.85	65.14
2013	0.00	41.66	58.34
2014	2.63	78.10	19.26
2015	44.44	39.27	16.29
2016	76.70	12.45	10.84
2017	85.84	3.43	10.73
2018	87.67	1.33	11.00

SOURCE: US Department of HUD/FHA, October 2018.

Table B-31: Data Table for Exhibits I-33: Average Principal Limit of FHA-Endorsed HECMs and I-35: Average Initial Cash Draws for FHA-Endorsed HECMs

Endorsement Fiscal Year	HECM	Average Principal Limit as a Share of Maximum Claim Amount	Average First Month Cash Draw as a Share of Principal Limit
2009	114,422	70.28	69.37
2010	79,059	65.83	78.42
2011	73,112	65.09	78.82
2012	54,815	66.46	79.99
2013	59,924	66.27	83.03
2014	51,616	58.74	66.89
2015	57,990	58.91	64.79
2016	48,868	59.76	62.44
2017	55,291	59.70	63.81
2018	48,327	54.95	63.27

SOURCE: US Department of HUD/FHA, October 2018.

Table B-32: Data Table for Exhibit I-34: HECM Principal Limit as a Share of MCA and Share of HECM Endorsements with PLF Revisions

Endorsement Month	Share of Endorsements under Changed PLFs	Total Principal Limit as a Share of MCA
Oct-18	0.00	59.97
Nov-18	0.15	60.06
Dec-18	4.74	59.32
Jan-18	17.94	58.36
Feb-18	42.00	56.23
Mar-18	65.75	53.63
Apr-18	81.20	52.12
May-18	89.73	51.20
Jun-18	94.67	50.92
Jul-18	96.70	50.67
Aug-18	97.78	50.29
Sep-18	99.03	50.23

SOURCE: US Department of HUD/FHA, October 2018.

Table B-33: Data Table for Exhibit I-36: States with the Highest Share FHA HECMs by MCA

Endorsement Fiscal Year	Share of Total Maximum Claim Amount (MCA) by FHA HECM Endorsement Fiscal Year					
	California	Florida	Colorado	Texas	Washington	Other States
2009	20.89	11.41	1.94	4.23	3.40	58.13
2010	23.11	7.31	1.95	5.05	3.60	58.98
2011	22.52	5.51	2.18	5.94	2.89	60.95
2012	21.09	5.27	2.16	6.00	2.75	62.73
2013	23.73	5.69	2.32	5.89	2.68	59.69
2014	28.83	6.03	2.48	5.04	2.37	55.25
2015	31.92	7.24	2.59	4.85	2.61	50.79
2016	32.87	7.54	4.09	5.50	3.13	46.87
2017	34.86	7.25	5.94	5.45	3.88	42.61
2018	33.17	6.79	6.67	5.30	5.24	42.82

SOURCE: US Department of HUD/FHA, October 2018.

Table B-34: 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	0.88	90.36	1.80	4.32	2.64	na
2010	0.57	92.46	1.11	3.60	2.27	na
2011	0.48	92.82	1.15	3.46	2.09	na
2012	0.33	93.41	1.06	3.24	1.96	na
2013	0.50	93.54	1.16	3.01	1.79	0.00
2014	0.78	91.69	1.80	3.54	2.17	0.02
2015	0.68	91.81	1.43	3.30	2.24	0.53
2016	0.76	87.84	1.40	3.20	2.10	4.69
2017	0.77	85.49	1.32	3.00	2.07	7.35
2018	0.89	85.97	1.11	2.53	1.88	7.61

SOURCE: US Department of HUD/FHA, October 2018.

Table B-35: Data Table for Exhibit I-38: HECM Appraisal Bias by Endorsement Year

Endorsement Calendar Year	HECM Appraisal Bias	
	Mean	Standard Error
2005	0.115	0.0140
2006	0.159	0.0106
2007	0.154	0.0088
2008	0.257	0.0083
2009	0.286	0.0114
2010	0.197	0.0126
2011	0.195	0.0125
2012	0.113	0.0122
2013	0.110	0.0092
2014	0.059	0.0092
2015	0.058	0.0077
2016	0.054	0.0074
2017	0.037	0.0063
2018	0.023	0.0096

SOURCE: US Department of HUD/FHA, October 2018.

Table B-36: Data Table for Exhibit I-39: Share of HECM Mortgages with Appraisals Exceeding AVM by 10 percent or More

Cohort Year	Share of HECM Mortgages		
	Exceeds AVM by 10 Percent or More	Exceeds AVM by 20 Percent or More	Exceeds AVM by 30 Percent or More
2016	19	8	4
2017	21	8	4
2018	21	9	4
Total	21	9	4

SOURCE: US Department of HUD/FHA, October 2018.

Appendix C:
Data Tables for Chapter II

Table C-1: Data Table for Exhibit II-2: MMIF Capital Ratio

Fiscal Year	MMIF Capital Ratio
2013	-0.12%
2014	0.42%
2015	2.10%
2016	2.35%
2017	2.18%
2018	2.76%

SOURCE: US Department of HUD/FHA, October 2018.

Table C-2: Data Table for Exhibit II-4: Forward and HECM Stand-Alone Capital Ratios

Fiscal Year	Forward Stand-Alone	HECM Stand-Alone
2013	-0.44%	3.07%
2014	0.88%	-10.13%
2015	2.00%	1.17%
2016	3.11%	-11.81%
2017	3.33%	-18.30%
2018	3.93%	-18.83%

SOURCE: US Department of HUD/FHA, October 2018.

Table C-3: Data Table for Exhibit II-8: Forward Mortgage Economic Net Worth Divided by Original Disbursements

Fiscal Year	Forward Economic Net Worth / Original Distribution
1992 - 2000	0.91%
2001	-0.88%
2002	-1.17%
2003	0.19%
2004	-3.99%
2005	-7.65%
2006	-10.06%
2007	-11.79%
2008	-8.57%
2009	-2.25%
2010	1.25%
2011	3.05%
2012	4.90%
2013	5.82%
2014	5.52%
2015	8.62%
2016	4.73%
2017	3.20%
2018	2.78%

SOURCE: US Department of HUD/FHA, October 2018.

Table C-4: Data Table for Exhibit II-12: HECM Economic Net Worth Divided by Original Maximum Claim Amount

Fiscal Year	HECM Economic Net Worth / Original MCA
2009	-11.68%
2010	-13.38%
2011	-8.29%
2012	-7.38%
2013	-5.95%
2014	-1.52%
2015	-2.83%
2016	-4.45%
2017	-7.86%
2018	-7.65%

SOURCE: US Department of HUD/FHA, October 2018.

Table C-5: Data Table for Exhibit II-13: Cash Flow History for MMIF Insurance Operations

Type of Cash Flow	Fiscal Year				
	2014	2015	2016	2017	2018
Dollars in Millions Cash Inflows					
Premiums	11,036	12,587	13,196	13,425	13,120
Recoveries	10,726	7,522	6,574	4,904	3,837
Total Inflows	21,762	20,109	19,770	18,329	16,957
Cash Outflows					
Claims	-25,255	-19,269	-18,569	-15,657	-13,922
Property Expenses	-562	-367	-325	-218	-179
Total Outflows	-25,817	-19,636	-18,894	-15,875	-14,101
Net Cash Flow					
Net Cash Flow	-4,055	473	876	2,454	2,856
Average Insurance-In-Force					
Average Insurance-In-Force	1,140,788	1,135,545	1,151,760	1,198,633	1,245,758
Cash Flows as a Percent of Insurance-In-Force					
Cash Inflows					
Premiums	0.97%	1.11%	1.15%	1.12%	1.05%
Recoveries	0.94%	0.66%	0.57%	0.41%	0.31%
Total Inflows	1.91%	1.77%	1.72%	1.53%	1.36%
Cash Outflows					
Claims	-2.21%	-1.70%	-1.61%	-1.31%	-1.12%
Property Expenses	-0.05%	-0.03%	-0.03%	-0.02%	-0.01%
Total Outflows	-2.26%	-1.73%	-1.64%	-1.32%	-1.13%
Net Cash Flow as a Percent of Insurance-In-Force					
Net Cash Flow	**-0.36%**	**0.04%**	**0.08%**	**0.20%**	**0.23%**

SOURCE: US Department of HUD/FHA, October 2018.

Table C-6: Data Table for Exhibit II-14: Cash Flow History MMIF Forward Mortgage Insurance Operations

Type of Cash Flow	Fiscal Year				
	2014	2015	2016	2017	2018
Dollars in Millions Cash Inflows					
Premiums	10,341	11,783	12,364	12,514	12,156
Recoveries	10,684	7,426	6,353	4,433	3,155
Total Inflows	21,025	19,209	18,717	16,947	15,311
Cash Outflows					
Claims	-24,344	-16,789	-14,323	-10,671	-7,796
Property Expenses	-560	-347	-304	-188	-129
Total Outflows	-24,904	-17,136	-14,627	-10,859	-7,925
Net Cash Flow					
Net Cash Flow	-3,879	2,073	4,090	6,088	7,386
Average Insurance-In-Force					
Insurance-In-Force	1,080,690	1,070,046	1,082,703	1,126,961	1,173,079
Cash Flows as a Percent of Insurance-In-Force					
Cash Inflows					
Premiums	0.96%	1.10%	1.14%	1.11%	1.04%
Recoveries	0.99%	0.69%	0.59%	0.39%	0.27%
Total Inflows	1.95%	1.80%	1.73%	1.50%	1.31%
Cash Outflows					
Claims	-2.25%	-1.57%	-1.32%	-0.95%	-0.66%
Property Expenses	-0.05%	-0.03%	-0.03%	-0.02%	-0.01%
Total Outflows	-2.30%	-1.60%	-1.35%	-0.96%	-0.68%
Net Cash Flow as a Percent of Insurance-In-Force					
Net Cash Flow	**-0.36%**	**0.19%**	**0.38%**	**0.54%**	**0.63%**

SOURCE: US Department of HUD/FHA, October 2018.

Table C-7: Data Table for Exhibit II-15: Cash Flow History MMIF HECM Insurance Operations

Type of Cash Flow	Fiscal Year				
	2014	2015	2016	2017	2018
Dollars in Millions Cash Inflows					
Premiums	695	804	832	911	964
Recoveries	42	96	221	471	682
Total Inflows	737	900	1,053	1,382	1,646
Cash Outflows					
Claims	-911	-2,480	-4,246	-4,986	-6,126
Property Expenses	-2	-20	-21	-30	-50
Total Outflows	-913	-2,500	-4,267	-5,016	-6,176
Net Cash Flow					
Net Cash Flow	-176	-1,600	-3,214	-3,634	-4,530
Average Insurance-In-Force					
Average Insurance-In-Force	60,098	65,499	69,057	71,672	72,679
Cash Flows as a Percent of Insurance-In-Force (UPB)					
Cash Inflows					
Premiums	1.16%	1.23%	1.20%	1.27%	1.33%
Recoveries	0.07%	0.15%	0.32%	0.66%	0.94%
Total Inflows	1.23%	1.37%	1.52%	1.93%	2.26%
Cash Outflows					
Claims	-1.52%	-3.79%	-6.15%	-6.96%	-8.43%
Property Expenses	0.00%	-0.03%	-0.03%	-0.04%	-0.07%
Total Outflows	-1.52%	-3.82%	-6.18%	-7.00%	-8.50%
Net Cash Flow as a Percent of Insurance-In-Force					
Net Cash Flow	**-0.29%**	**-2.44%**	**-4.65%**	**-5.07%**	**-6.23%**

SOURCE: US Department of HUD/FHA, October 2018.

Appendix D: FHA Single Family Housing Mortgagee Letters Published Fiscal Year 2018

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

In FY 2018, FHA published the Mortgagee Letters listed in the table below.

ML #	Publication Date	Title
2018-06	9/28/2018	Home Equity Conversion Mortgage (HECM) Program – Changes to Appraisal Submission and Assessment for all HECM Originations
2018-05	8/15/2018	Updated Loss Mitigation for mortgagees servicing mortgage loans for borrowers with FHA-insured mortgages whose property and/or place of employment is located in the Presidentially-Declared Major Disaster Areas (PDMDAs) of Puerto Rico Hurricane Maria DR-4339 or Virgin Islands Hurricane Maria DR-4340 and Disaster Foreclosure Moratorium for certain FHA-insured mortgages secured by properties located in areas of Puerto Rico and the U.S. Virgin Islands that the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) has declared to be eligible for Individual Assistance (Affected Counties) as a result of Hurricane Maria (Puerto Rico Hurricane Maria DR-4339 and Virgin Islands Hurricane Maria DR-4340)
2018-03	5/16/18	Extension of Disaster Foreclosure Moratoriums for Specified Areas Impacted by Hurricane Maria in Puerto Rico and the U.S. Virgin Islands
2018-02	3/1/18	Extension of Disaster Foreclosure Moratoriums for Specified Areas Impacted by Hurricane Maria
2018-01	2/22/18	Loss Mitigation for borrowers with FHA-insured mortgages whose property and/or place of employment is located in

		Presidentially-Declared Major Disaster Areas, adversely affected by Hurricanes Harvey, Irma, Maria, certain California wildfires that occurred in October 2017 (FEMA-DR-4344) or certain California Wildfires, Flooding, Mudflows, and Debris Flows that occurred in December 2017 (FEMA-DR-4353)
2017-18	12/7/17	Property Assessed Clean Energy (PACE)
2017-17	12/7/17	2018 Nationwide Home Equity Conversion Mortgage (HECM) Limits https://www.hud.gov/sites/documents/16-16ml.pdf
2017-16	12/7/17	2018 Nationwide Forward Mortgage Limits
2017-15	10/20/17	Extension of Initial Disaster Foreclosure Moratorium for Properties in Specified Areas Impacted by Hurricanes Harvey, Irma and Maria.

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