



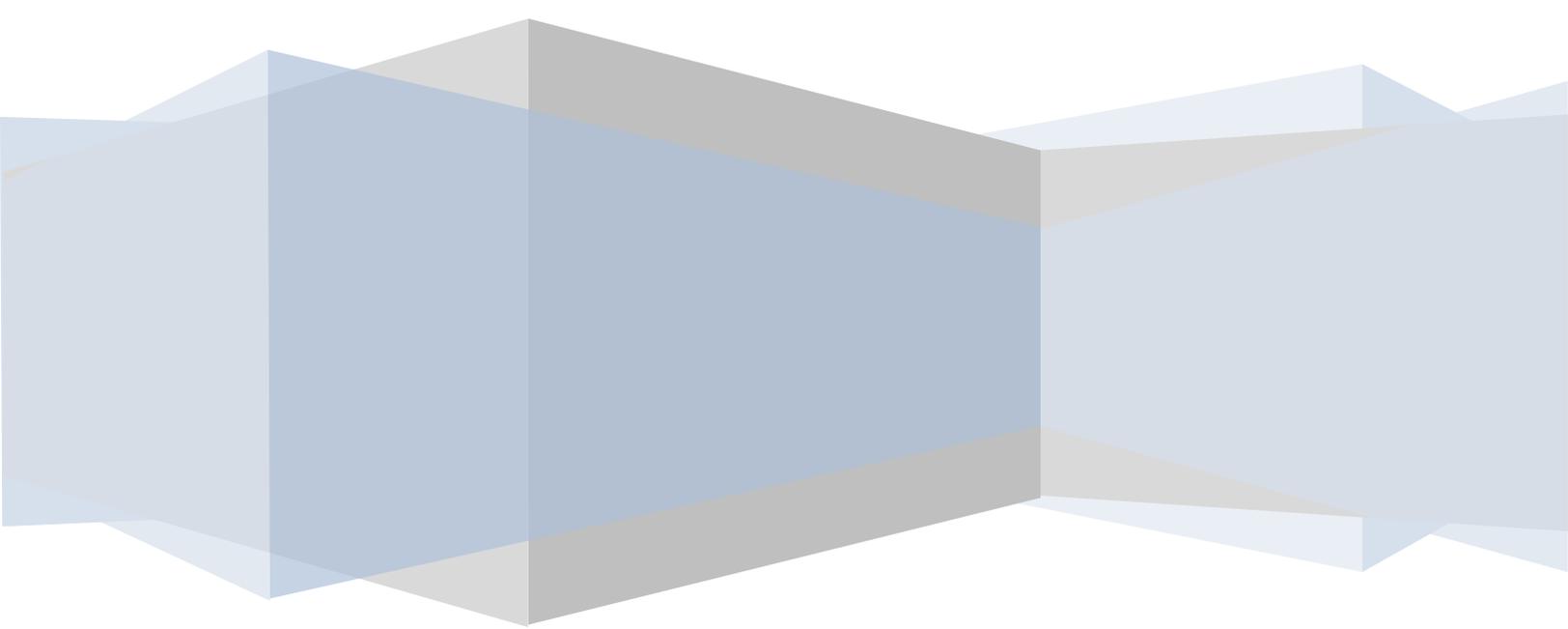
U.S. Department of Housing and Urban Development

FHA Single-Family Mutual Mortgage Insurance Fund Programs

Quarterly Report to Congress

FY 2018 Q4

Delivered: February 1, 2019



**Quarterly Report to Congress on FHA Single-Family
Mutual Mortgage Insurance Fund Programs**

FY 2018 Q4
Data as of September 30, 2018

U.S. Department of Housing and Urban Development
Federal Housing Administration

FOREWORD

On behalf of Secretary Carson and FHA Commissioner Brian Montgomery, and pursuant to requirements of section 202(a)(5) of the National Housing Act, as amended by the FHA Modernization Act of 2008 (Public Law 110-289, Page 122 Stat. 2834), I am herewith transmitting the Fiscal Year 2018 Fourth Quarter Report. This report covers mortgages that are obligations of the Mutual Mortgage Insurance (MMI) Fund of the Federal Housing Administration. The reporting period covers July 1, 2018 through September 30, 2018.

This quarterly report provides detailed information on the composition and credit quality of new insurance, and on FHA's financial position. In addition to this report to Congress, FHA provides information regarding the status of the single-family mortgage-insurance portfolio via the publication of other complementary reports. All FHA reports can be found in the [Office of Housing Reading Room](#).

Also posted in the Office of Housing Reading Room are annual independent actuarial reviews of the MMI Fund and HUD's Annual Report to Congress on the financial status of that fund. HUD posted the Actuarial Review and Annual Report to Congress for FY 2018 on November 15, 2018. The FY 2018 Annual Report, which summarizes the independent actuary's analysis of the portfolio, includes detailed projections of future performance and discussion of economic risk to the MMI Fund. The Department is pleased to provide details to the Congress on how this report was prepared or to answer any questions about the information presented.

Sincerely,



Keith N. Becker
Deputy Assistant Secretary
Office of Risk Management and Regulatory Affairs

This report is in fulfillment of the requirement under section 2118 of the Housing and Economic Recovery Act of 2008 (12 USC 1708(a)(5)) that HUD report to the Congress on a quarterly basis respecting mortgages that are an obligation of the Mutual Mortgage Insurance Fund. The specific items requested under the Act are:

| Mandated Item | Summary | Page | Exhibit |
|--|--|---|--|
| <p>A) Cumulative volume of mortgage insurance commitments that have been made during such fiscal year through the end of the quarter for which the report is submitted</p> | <p>Single-family forward endorsements during the fourth quarter of FY 2018 increased 2.6 percent by count from the prior quarter. Single-family forward endorsements were \$53.8 billion, up 4.2 percent from the prior quarter. Reverse Mortgage (HECM) endorsements by count were down 5.8 percent from the previous quarter. HECM endorsement volume, at \$3.0 billion for the fourth quarter of FY 2018, represents a decrease of 4.7 percent from the previous quarter.</p> | <p>5, 17, 18</p> | <p>1, A-1, A-2</p> |
| <p>B) Types of mortgages insured, categorized by risk</p> | <p>The average credit score this quarter remained stable at 668. Endorsement share of 720+ credit score mortgages fell to 13.5 percent. Share of less than 640 credit score rose to 27.5 percent. Average borrower loan-to-value ratio fell to 92.8 percent.</p> | <p>6, 7,8, 19, 20, 21, 22</p> | <p>2, 3, 4, A-3, A-4, A-5, A-6</p> |
| <p>C) Any significant changes between actual and projected claim and prepayment activity</p> | <p>Prepayment speeds through this quarter were 10.2 percent higher than predicted counts. Claims were running 46.0 percent below predicted level by count and 64.6 percent below predicted level by dollar amount.</p> | <p>9,</p> | <p>5,</p> |
| <p>D) Projected versus actual loss rates</p> | <p>The year-to-date net loss rate on claim activity of 46.7 percent is lower than the projection of 55.6 percent.</p> | <p>9</p> | <p>5</p> |
| <p>E) Updated projections of the annual subsidy rates</p> | <p>The budget execution credit subsidy rates (CSR) for FY 2018 Q4 are at -3.18 percent and -0.49 percent for forward mortgages and HECMs, respectively.</p> | <p>10</p> | <p>6</p> |

| Additional Risk Factors | Summary | Page | Exhibit |
|---|---|------------------------|------------------------|
| F) MMI Fund Cash and Investments | The MMI Fund Cash and Investments account balance at the end of FY 2018 Q4 was \$50.2 billion, down from \$52.4 billion last quarter. | 11 | 7 |
| G) Business Operations Cash Flow | Core business-operations cash flow in FY 2018 Q4 was \$868 million. FHA paid \$3.5 billion in claims and property expenses, while receiving approximately \$4.3 billion in revenues from premium collections, sale of notes and properties, and other revenue. | 12 | 8 |
| H) Early Payment Delinquency | The early payment delinquency (EPD) rate increased slightly this quarter to 0.49 percent, from 0.44 percent last quarter. | 13 | 9 |
| I) Serious Delinquency Rates | The portfolio-level serious delinquency rate decreased this quarter to 4.1 percent, from 4.3 percent last quarter. This decrease may be due primarily to loans curing from the hurricanes and wildfires that affected the United States and its territories in the second half of calendar year 2017. | 14, 15 | 10, 11 |
| J) Cash-Out Refinancing Rates | Purchase mortgage share increased from 80.4 percent last quarter to 81.6 percent. Cash-out refinance mortgage share increased as a percentage of overall business to 14.4 percent from 13.8 percent last quarter. | 24 | A-8 |
| K) Debt-to-Income (DTI) Rates | The proportion of borrowers with DTI ratios above 50 percent increased from 25.3 percent in 2018 Q3 to 25.9 percent in 2018 Q4. | 25 | A-9 |
| L) Down Payment Assistance (DPA) – Serious Delinquency Rate (SDQ) | The share of Down Payment Assistance (Purchase only mortgages) increased from 37.3 percent last quarter to 39.2 percent. Generally, higher SDQ rates are | 26 | A-10 |

| Additional Risk Factors | Summary | Page | Exhibit |
|---|--|--------------------|----------------------|
| | associated with mortgages where down payment assistance came from self-identified governmental entities. | | |
| M) Reverse Mortgage (HECM) Program Claims | Total HECM program claims decreased this quarter by 1.6 percent from 16,351 loans to 16,095 loans. | 27 | A-11 |

Endorsement Activity

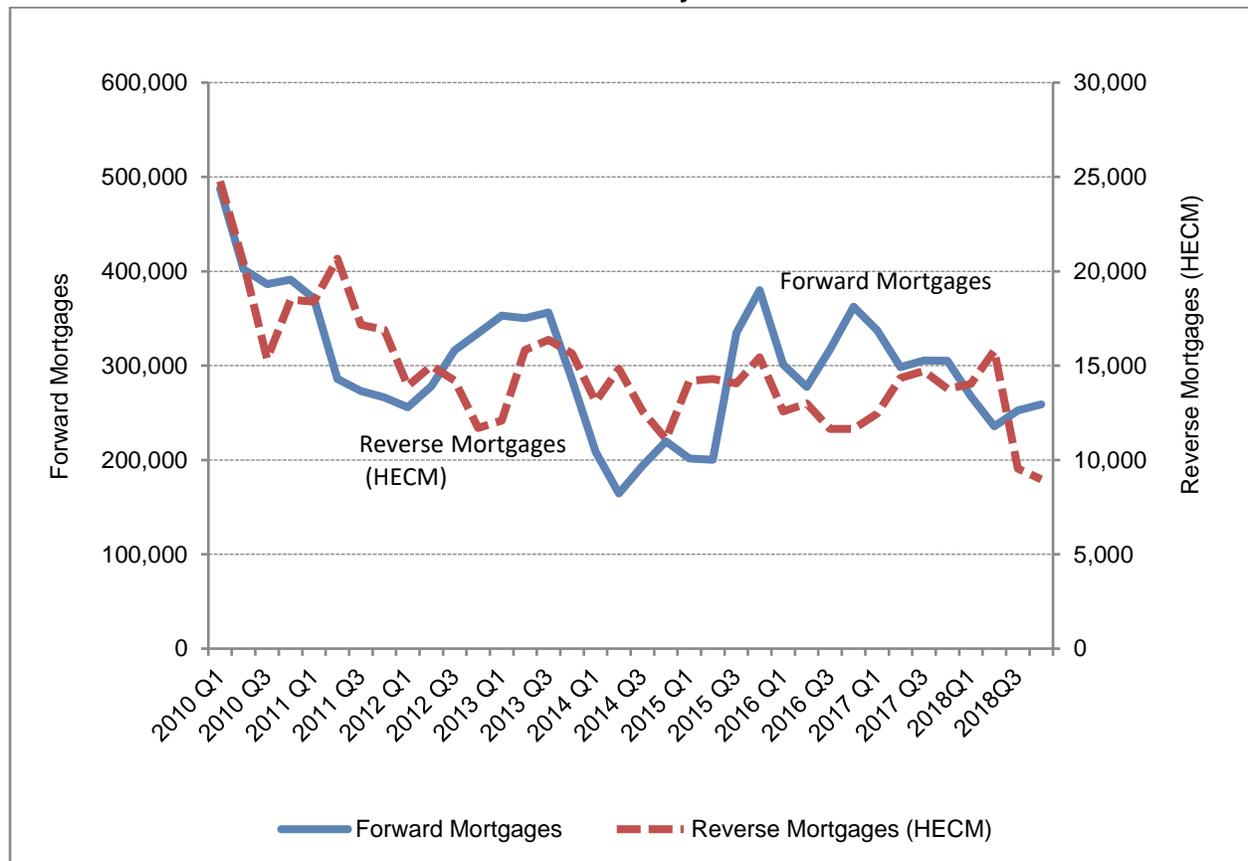
During the fourth quarter of fiscal year (FY) 2018, the FHA endorsed 258,902 forward mortgages for insurance, up 2.6 percent from the prior quarter (Exhibit A-1).

The dollar volume of refinance endorsements (Conventional to FHA, FHA to FHA) in the quarter was down 3.0 percent from the previous quarter, while the dollar volume of all forward-mortgage endorsements was up 4.2 percent (Exhibit A-2).

FHA-to-FHA refinance activity, in terms of endorsed mortgages, decreased by 7.1 percent from the quarter-earlier period—from 24,266 to 22,552.

HECM endorsement volume, \$3.0 billion for the fourth quarter of FY 2018, was down 4.7 percent from the previous quarter. HECM endorsement counts in FY 2018 Q4 (8,973) were down 5.8 percent from last quarter.

Exhibit 1. Endorsement Counts by Fiscal Year and Quarter

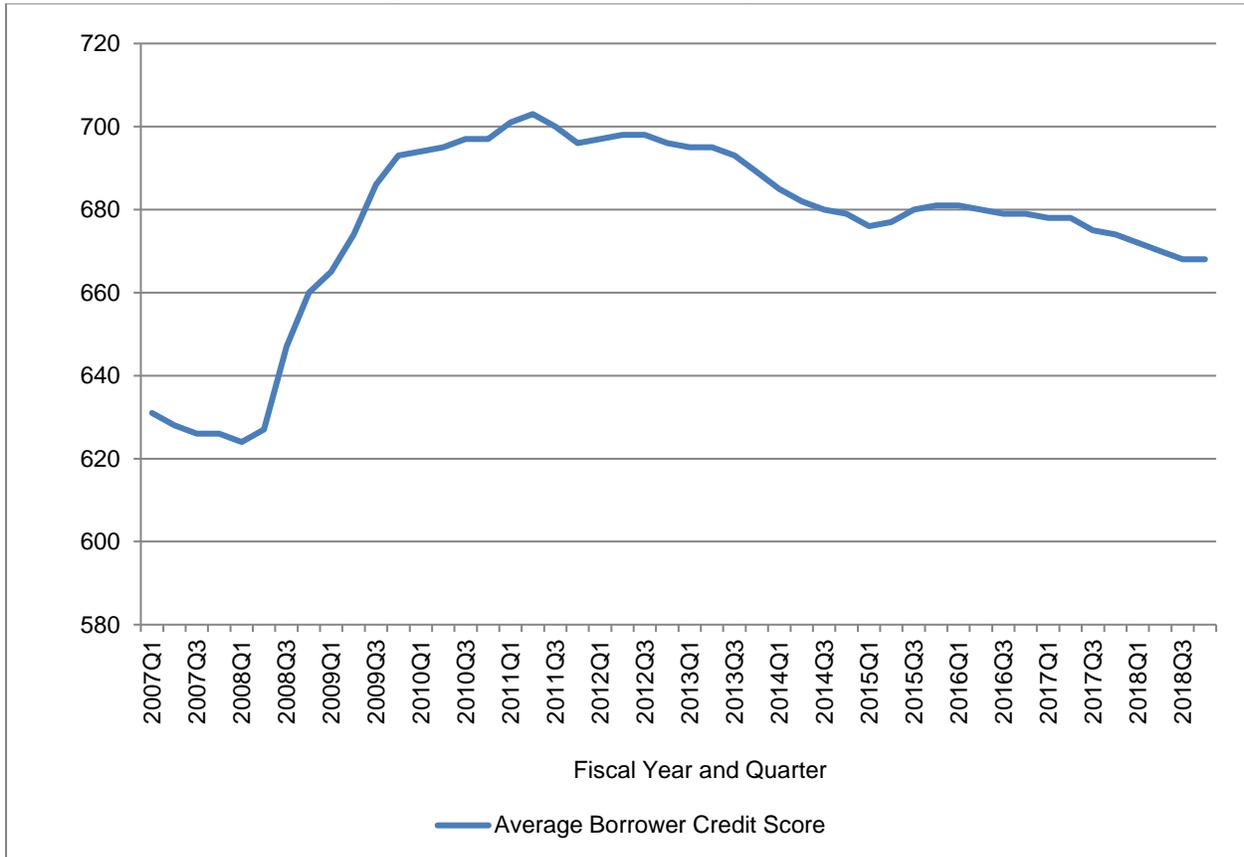


SOURCE: U.S. Department of HUD/FHA, October 2018.

Borrower Credit Scores

Average borrower credit scores remained stable at 668. Although this continues to be well above the levels preceding the mortgage and credit crisis, it is well below the peak of 703 in FY 2011 Q2 (Exhibit 2, Exhibit A-4).

Exhibit 2. Average Borrower Credit Scores by Fiscal Year and Quarter

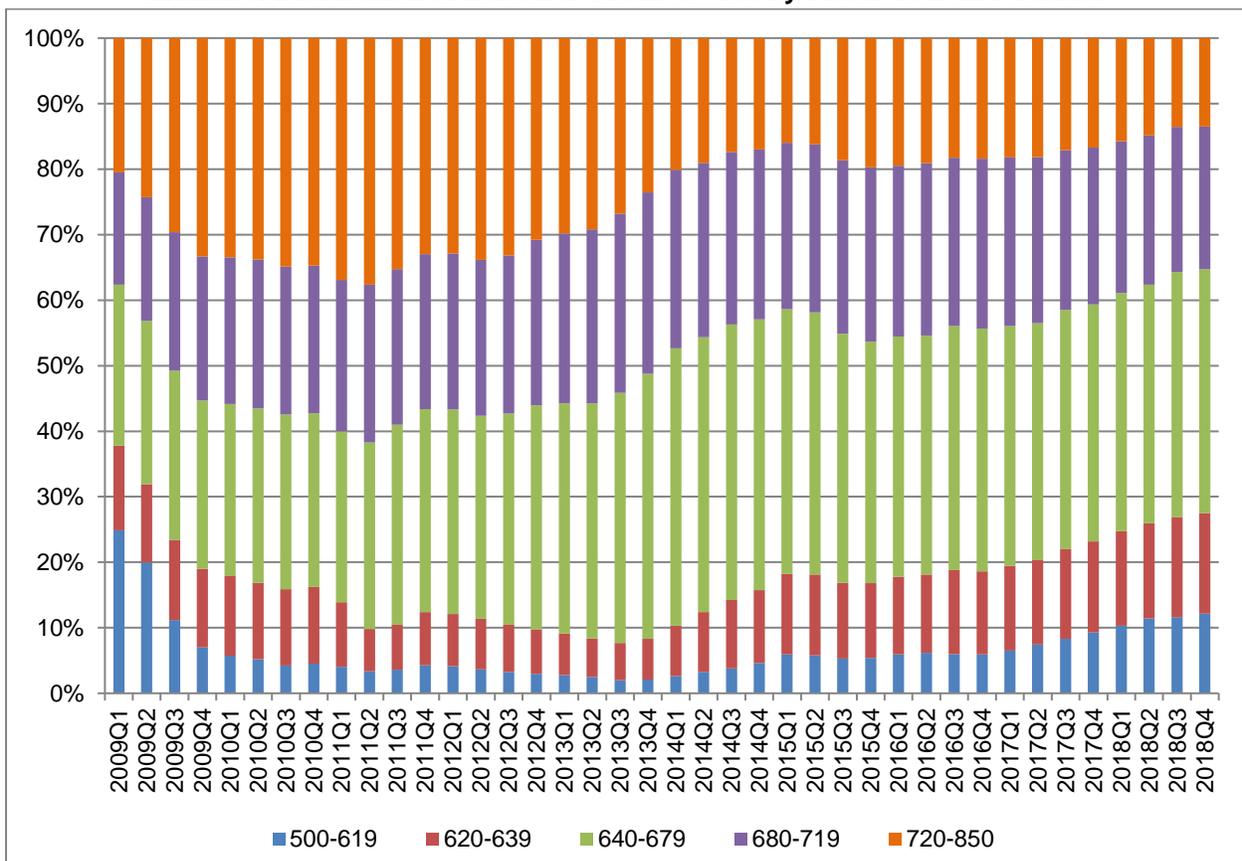


NOTE: Excludes streamline refinance activity.
 SOURCE: U.S. Department of HUD/FHA, October 2018

As shown in Exhibit 3, the distribution of borrower credit scores has gradually changed over the past few years. The core of the distribution is in the 640–679 range (37.3 percent). In FY 2018 Q4 the share of 680–850 credit scores continued to decline. (Exhibit 3, Exhibit A-3).

A shift in FHA’s risk profile could easily be lost by focusing on average credit score alone. As shown in Exhibit 3, FHA’s credit risk profile has been shifting from nearly 60 percent of borrowers at greater than 680 credit scores to about 35 percent, while at the same time, about 8 percent of less than 640 borrowers has grown to nearly 30 percent. This increase shows a much riskier population of mortgages being endorsed by FHA. Performance of these mortgages will be closely monitored to determine when policy changes should be implemented.

Exhibit 3. Distribution of Borrower Credit Scores by Fiscal Year and Quarter

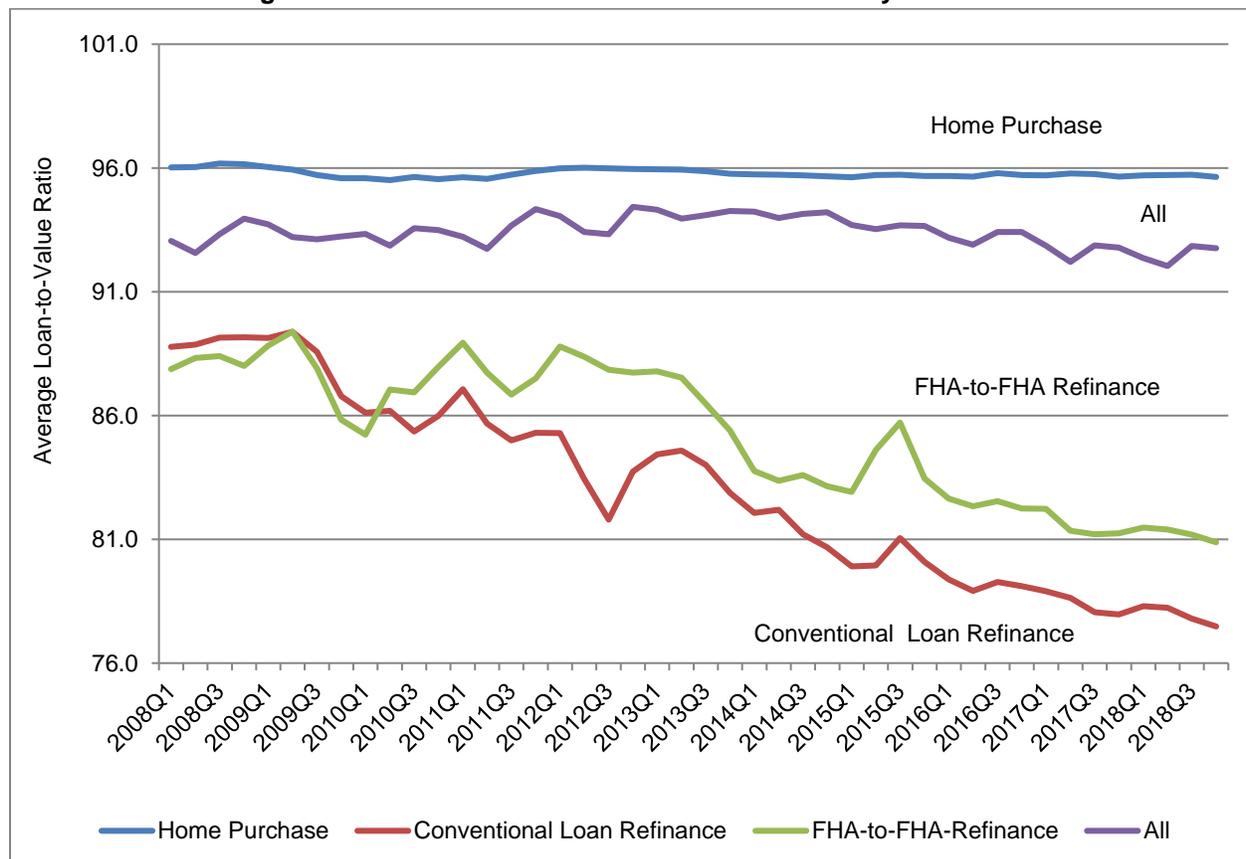


NOTE: Excludes streamline refinance activity.
 SOURCE: U.S. Department of HUD/FHA, October 2018.

Average Loan-to-Value (LTV)

The average LTV decreased from 92.9 percent to 92.8 percent for all FHA mortgages combined. Typically, LTV ratios of refinance mortgages are lower than home purchase mortgages. (Exhibit 4, Exhibit A-1, Exhibit A-5, Exhibit A-6). For a typical purchase mortgage endorsement, FHA charges an upfront mortgage insurance premium (UFMIP) of 1.75 percent of the loan balance. FHA permits borrowers to finance the UFMIP by having it added to the loan balance, and nearly all FHA borrowers do so. However, despite the increase in the loan balance, FHA reporting conventions have been, and remain, to report the LTV ratio on the loan balance without inclusion of the UFMIP. In the conventional market, custom would be to include a financed premium into the loan balance, and therefore the calculation of the LTV ratio. Additionally, in the conventional market for a low down payment mortgage, an Interested Party Contribution (IPC) in excess of 3 percent of the value of the home is treated as a reduction in the value of the home, resulting in an increase in the reported LTV ratio of the transaction.¹ For FHA-insured mortgages, no downward adjustment is made to the value of the property unless an IPC exceeds 6 percent of the value of the home.

Exhibit 4. Average Loan-to-Value Ratios on New Endorsements by Fiscal Year and Quarter



NOTE: Excludes streamline refinance activity.
 SOURCE: U.S. Department of HUD/FHA, October 2018.

¹ Interested Party Contributions are contributions made to the borrower from an interested party to the transaction, customarily the property seller.

Predicted and Actual Termination and Claim-Loss Rates

The predicted-versus-actual comparisons through the fourth quarter of FY 2018 are presented in Exhibit 5. Prepayment speeds were higher than predicted. Claims were well below predictions. The number of actual claims through FY 2018 Q4 67,710 was 46.0 percent less than predicted 125,383. That deviation comes from a combination of continued foreclosure-processing delays in many states and more aggressive servicing actions to promote home retention. Neither of these is a factor that can easily be captured in the actuarial forecast models, which are based upon behavioral relationships observed over many years. When institutional and/or borrower behaviors change, it can take a number of years for the actuarial models to have enough data to reset the behavioral patterns to adapt to those changes (Exhibit 5).

Exhibit 5. Termination and Claim Loss Experience Compared to Forecasts

| Oct 2017– September 2018 | Year to Date Predicted ^a | Year to Date Actual | Deviation (Actual Minus Predicted) | Percentage Deviation (Actual Versus Predicted) |
|-------------------------------------|-------------------------------------|---------------------|------------------------------------|--|
| Prepayments (number) | 778,869 | 858,125 | 79,256 | 10.18 |
| Claims (number) ^a | 125,383 | 67,710 | (57,673) | (46.00) |
| Claims (\$ millions) ^b | 16,243 | 5,754 | (10,489) | (64.57) |
| Net Loss on Claims (%) ^c | 55.61 | 46.73 | (8.88) | (15.97) |

na = not applicable.

^a Projections of prepayment counts, claim counts, and claim dollars are modeled for the FY 2017 and FY 2018 FHA financial statements. All projections shown here use quarterly forecasts and thus reflect cyclical trends throughout the year.

^b Claim payments and counts reported here include those for conveyance (foreclosure) claims, pre-foreclosure (short) sales, and claims paid in connection with sales of delinquent mortgages. They do not include payments for loss mitigation mortgage-workout actions.

^c These rates are losses as a percentage of the defaulted mortgage balance, for both conveyance and pre-foreclosure-sale claims. Includes only mortgages in the MMI Fund.

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

Budget Execution Credit Subsidy Rates

The budget execution subsidy rate for forward mortgages for FY 2018 Q4 is -3.18 percent. The subsidy rate for HECM mortgages is -0.49 percent for FY 2018 Q4 (Exhibit 6).

Exhibit 6. Budget Execution Credit Subsidy Rates, FY 2018 Q4

| Type of Mortgage | Rate (%) ^a |
|--------------------------|-----------------------|
| Forward Mortgages | -3.18 |
| Reverse Mortgages (HECM) | -0.49 |

^a Budget execution credit subsidy rates are the expected net present value, per dollar of new insurance endorsements, of all cash flows from insurance operations over the life of the mortgage insurance as of the year of the insurance commitments. A negative rate means that the present value of premium revenues is expected to be greater than the present value of net claim expenses over the life of the insurance, i.e., a negative subsidy. Mortgages with negative credit subsidies are expected to produce receipts for the federal budget. These initial budget-execution rates are those approved by the Office of Management and Budget for budget accounting. The rates are updated on an annual basis, once the insurance is in place, to reflect both actual experience and updated forecasts of future mortgage performance and insurance cash flows. For a historical breakdown of credit subsidy rates and re-estimates, see <https://www.govinfo.gov/content/pkg/BUDGET-2019-FCS/pdf/BUDGET-2019-FCS.pdf>. SOURCE: U.S. Department of HUD/FHA, October 2018.

MMI Fund Cash and Investments

As Exhibit 7 shows, the cash and investments of the MMI Fund decreased to \$50.2 billion in FY 2018 Q4. \$23.02 billion is held in the Financing account, and \$27.2 billion is held in the Capital Reserve account.

Exhibit 7. MMI Fund Cash and Investments by Quarter, FY 2011–FY 2018

| Fiscal Year | Quarter | Capital Reserve Account ^a (\$ billions) | Financing Account ^b (\$ billions) | Total ^{cd} (\$ billions) |
|-------------|-----------|---|---|--------------------------------------|
| 2012 | Oct–Dec | 5.7 | 27.6 | 33.3 |
| | Jan–Mar | 7.0 | 25.3 | 32.3 |
| | Apr–Jun | 9.8 | 21.9 | 31.6 |
| | Jul–Sep | 3.3 | 35.1 | 38.4 |
| 2013 | Oct–Dec | 7.1 | 30.0 | 37.1 |
| | Jan–Mar | 11.0 | 25.1 | 36.1 |
| | Apr–Jun | 15.8 | 17.3 | 33.1 |
| | Jul–Sep | 0 | 48.4 | 48.4 |
| 2014 | Oct–Dec | 2.6 | 44.5 | 47.1 |
| | Jan–Mar | 2.2 | 43.6 | 45.8 |
| | Apr–Jun | 4.9 | 40.4 | 45.3 |
| | Jul–Sep | 7.3 | 38.9 | 46.2 |
| 2015 | Oct–Dec | 10.4 | 35.8 | 46.2 |
| | Jan–Mar | 12.9 | 33.5 | 46.3 |
| | Apr–Jun | 12.0 | 34.5 | 46.5 |
| | Jul–Sep | 16.0 | 29.6 | 45.6 |
| 2016 | Oct–Dec | 18.2 | 27.3 | 45.5 |
| | Jan–Mar | 20.2 | 25.3 | 45.5 |
| | Apr–Jun | 34.4 | 16.6 | 51.0 |
| | Jul–Sep | 37.2 | 12.6 | 49.8 |
| 2017 | Oct–Dec | 40.3 | 9.6 | 49.9 |
| | Jan–Mar | 43.0 | 7.4 | 50.5 |
| | Apr–Jun | 28.8 | 22.8 | 51.7 |
| | Jul–Sep | 31.6 | 18.5 | 50.1 |
| 2018 | Oct - Dec | 33.5 | 17.3 | 50.8 |
| | Jan–Mar | 35.1 | 16.5 | 51.6 |
| | Apr–Jun | 25.3 | 27.1 | 52.4 |
| | Jul–Sep | 27.2 | 23.0 | 50.2 |

NOTE: Only end-of-year balances represent audited figures.

^a This is an on-budget account that records net receipts provided by FHA to the federal budget over time. Balances are held in cash and Treasury securities. The securities earn interest for FHA. Periods in which irregular changes to the balance are seen represent times when HUD transfers funds to/from the Financing account for the rebalancing required by annual budget reestimates.

^b This is a series of off-budget cash accounts used to manage insurance operation collections and disbursements.

^c Total is the sum of cash and investments in the Capital Reserve and Financing accounts. It excludes other assets and liabilities.

^d Capital Reserve Account and Financing Account may not always add to total because of rounding.

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

Cash Flows from Business Operations

FY 2018 Q4 net cash flow was \$868 million compared to FY 2018 Q3 of \$636 million (Exhibit 8). HUD has been proactive in reducing average losses per claim through a more diversified asset disposition strategy, which includes the Distressed Asset Stabilization Program (DASP), promotion of third-party sales at foreclosure auctions through its Claims Without Conveyance of Title (CWCOT) program, and expanded eligibility for pre-foreclosure (short) sales. Claim costs (as measured by loss rates) have decreased from a high of 65 percent in 2011 to less than 50 percent over the last four quarters.

Exhibit 8. Business Operations Cash Flows, FY 2018 Q1–FY 2018 Q4 (\$ millions)

| | FY 2018 Q1 | FY 2018 Q2 | FY 2018 Q3 | FY 2018 Q4 | Past 4 Quarters |
|---------------------------------|----------------|----------------|----------------|----------------|-----------------|
| Collections: | | | | | |
| Premiums | 3,322 | 3,143 | 3,340 | 3,315 | 13,120 |
| Property Sale Receipts | 572 | 582 | 551 | 466 | 2,172 |
| Note Sale Proceeds | (1) | (4) | 22 | 182 | 199 |
| Other (includes. Settlements) | 338 | 272 | 473 | 385 | 1,468 |
| Total | 4,231 | 3,993 | 4,386 | 4,348 | 16,958 |
| Disbursements: | | | | | |
| Claims ^a | (3,564) | (3,215) | (3,705) | (3,438) | (13,922) |
| Property Maintenance | (30) | (45) | (35) | (31) | (141) |
| Other | (7) | (10) | (10) | (11) | (38) |
| Total | (3,601) | (3,270) | (3,750) | (3,480) | (14,101) |
| Net Operations Cash Flow | 630 | 723 | 636 | 868 | 2,857 |

NOTE: Unaudited figures; details may not sum to total due to rounding.

^a Claim payments shown here include conveyance, pre-foreclosure sale, note sales, loss mitigation (home retention) actions, and all HECM claims (assignment and shortfall claims).

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

Early-Payment Delinquency Rates

The Early-Payment Delinquency (EPD) rate for mortgages originated in FY 2018 Q1 is up 5 basis points from the previous quarter.

Exhibit 9. Early Payment Delinquency Rates

| Fiscal Year | Origination Quarter | Mortgage Type/Purpose | | |
|-------------|---------------------|-----------------------|-----------|------------------|
| | | Purchase | Refinance | All ^a |
| 2012 | Oct-Dec | 0.31 | 0.29 | 0.31 |
| | Jan-Mar | 0.38 | 0.30 | 0.34 |
| | Apr-Jun | 0.39 | 0.32 | 0.36 |
| | Jul-Sep | 0.38 | 0.29 | 0.34 |
| 2013 | Oct-Dec | 0.25 | 0.20 | 0.23 |
| | Jan-Mar | 0.29 | 0.20 | 0.24 |
| | Apr-Jun | 0.32 | 0.22 | 0.27 |
| | Jul-Sep | 0.36 | 0.26 | 0.33 |
| 2014 | Oct-Dec | 0.32 | 0.29 | 0.31 |
| | Jan-Mar | 0.37 | 0.33 | 0.36 |
| | Apr-Jun | 0.46 | 0.37 | 0.44 |
| | Jul-Sep | 0.45 | 0.34 | 0.43 |
| 2015 | Oct-Dec | 0.36 | 0.27 | 0.34 |
| | Jan-Mar | 0.42 | 0.24 | 0.35 |
| | Apr-Jun | 0.43 | 0.28 | 0.37 |
| | Jul-Sep | 0.42 | 0.34 | 0.40 |
| 2016 | Oct-Dec | 0.31 | 0.27 | 0.30 |
| | Jan-Mar | 0.37 | 0.23 | 0.32 |
| | Apr-Jun | 0.46 | 0.34 | 0.42 |
| | Jul-Sep | 0.45 | 0.32 | 0.41 |
| 2017 | Oct-Dec | 0.31 | 0.22 | 0.28 |
| | Jan-Mar | 0.41 | 0.24 | 0.35 |
| | Apr-Jun | 1.14 | 0.65 | 1.02 |
| | Jul-Sep | 1.44 | 1.17 | 1.38 |
| 2018 | Oct-Dec | 0.47 | 0.35 | 0.44 |
| | Jan-Mar | 0.56 | 0.30 | 0.49 |

^a Percent of mortgages originated in each quarter for FHA insurance that experience a three-month delinquency in the first six payment cycles.

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

Serious Delinquency Rates

Serious delinquency (SDQ) rates for this quarter decreased to 4.11 percent, down 17 bps from last quarter. As the portfolio serious delinquency rate has reached historic lows and FHA credit profile shifts, FHA may see increases in SDQ rates going forward. For all cohorts, mortgages with DPA have typically underperformed those without DPA (Exhibit A-10).

SDQ rates tend to be somewhat seasonal and may fluctuate along current levels. Recent disasters such as hurricanes Harvey, Irma, and Maria, as well as wildfires in the Western United States, had a near term effect on overall delinquency rates. Overall, serious delinquency rates are significantly improved from the highs seen in 2012.

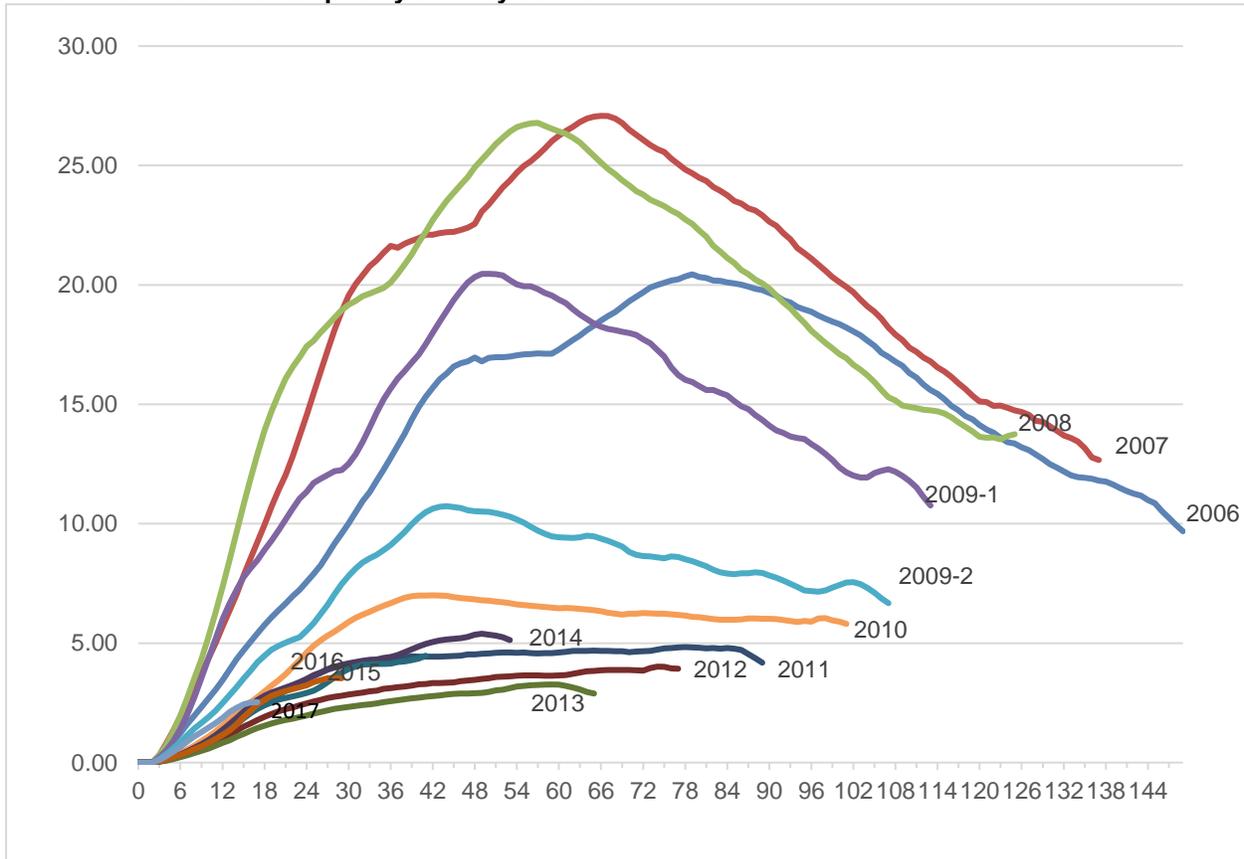
Exhibit 10. Serious Delinquency Rates, All Single-Family Forward Endorsements



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

Exhibit 11 follows the serious delinquency rates of recent vintages from their month of origination. Serious delinquency rates have risen in more recent vintages. This may be due to expansion of credit to underserved borrowers or other factors in the economy. The late 2017 hurricanes and wildfires in the United States and its territories have also created an increase in serious delinquency rates. However, recent vintage delinquency rates are still considerably lower than for those mortgages originated during 2006-2009.

Exhibit 11. Serious Delinquency Rate by Fiscal Year



NOTE: The FY 2009 cohort is separated into two parts, representing mortgage originations from October through March in 2009-1 and mortgage originations from April through September in 2009-2.
 SOURCE: U.S. Department of HUD/FHA, October 2018.

APPENDIX

Exhibit A-1. New Endorsement Counts

| | Forward Mortgages ^a | | | | Reverse Mortgages (HECM) ^b |
|--------------------------------|--------------------------------|-----------------------------|----------------------|-------------------|---------------------------------------|
| | Home Purchase | Conventional Loan Refinance | FHA-to-FHA Refinance | All Forward Loans | |
| Fiscal Year | | | | | |
| 2008 | 591,327 | 349,123 | 91,133 | 1,031,583 | 112,051 |
| 2009 | 995,102 | 468,768 | 367,449 | 1,831,319 | 114,422 |
| 2010 | 1,109,164 | 305,296 | 252,452 | 1,666,912 | 79,059 |
| 2011 | 777,101 | 194,811 | 224,760 | 1,196,672 | 73,112 |
| 2012 | 733,699 | 129,185 | 321,615 | 1,184,499 | 54,815 |
| 2013 | 702,415 | 91,500 | 550,930 | 1,344,845 | 59,924 |
| 2014 | 594,998 | 55,353 | 136,000 | 786,351 | 51,616 |
| 2015 | 753,387 | 80,014 | 282,829 | 1,116,230 | 57,990 |
| 2016 | 879,512 | 107,464 | 271,072 | 1,258,048 | 48,868 |
| 2017 | 882,079 | 126,876 | 237,479 | 1,246,434 | 55,291 |
| 2018 | 776,036 | 109,435 | 128,849 | 1,014,320 | 48,327 |
| Fiscal Year and Quarter | | | | | |
| 2013 Q1 | 177,852 | 22,754 | 152,520 | 353,126 | 12,084 |
| 2013 Q2 | 157,439 | 25,428 | 167,487 | 350,354 | 15,832 |
| 2013 Q3 | 181,297 | 24,176 | 150,907 | 356,380 | 16,371 |
| 2013 Q4 | 185,827 | 19,142 | 80,016 | 284,985 | 15,637 |
| 2014 Q1 | 152,965 | 14,611 | 40,910 | 208,486 | 13,094 |
| 2014 Q2 | 119,833 | 13,456 | 31,202 | 164,491 | 14,826 |
| 2014 Q3 | 148,017 | 13,573 | 32,042 | 193,632 | 12,590 |
| 2014 Q4 | 174,183 | 13,713 | 31,846 | 219,742 | 11,106 |
| 2015 Q1 | 154,806 | 15,826 | 30,966 | 201,598 | 14,199 |
| 2015 Q2 | 132,529 | 15,430 | 52,179 | 200,138 | 14,288 |
| 2015 Q3 | 198,802 | 21,486 | 114,367 | 334,655 | 14,058 |
| 2015 Q4 | 267,250 | 27,272 | 85,317 | 379,839 | 15,445 |
| 2016 Q1 | 210,550 | 27,165 | 63,470 | 301,185 | 12,578 |
| 2016 Q2 | 187,068 | 26,110 | 64,247 | 277,425 | 13,002 |
| 2016 Q3 | 225,133 | 26,059 | 65,903 | 317,095 | 11,643 |
| 2016Q4 | 256,761 | 28,130 | 77,452 | 362,343 | 11,645 |
| 2017Q1 | 220,353 | 30,153 | 87,011 | 337,517 | 12,453 |
| 2017Q2 | 195,485 | 35,489 | 67,318 | 298,292 | 14,352 |
| 2017Q3 | 230,475 | 31,055 | 44,003 | 305,533 | 14,721 |
| 2017Q4 | 235,766 | 30,179 | 39,147 | 305,092 | 13,765 |
| 2018Q1 | 195,513 | 30,091 | 42,034 | 267,638 | 14,023 |
| 2018Q2 | 166,641 | 28,814 | 39,997 | 235,452 | 15,802 |
| 2018Q3 | 202,747 | 25,315 | 24,266 | 252,328 | 9,529 |
| 2018Q4 | 211,135 | 25,215 | 22,552 | 258,902 | 8,973 |

^a Starting in FY 2008 Q4, these counts include 203(k) purchase and rehabilitation loans and 234(c) condominium loans.

^b The FHA reverse-mortgage insurance program is called Home Equity Conversion Mortgage (HECM). Starting in FY 2009 (2008 Q4), all new HECM endorsements are included in the Mutual Mortgage Insurance Fund. Previous endorsements, by law, remain in the General and Special Risk Insurance Fund.

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

Exhibit A-2. Endorsement Volumes

| | Volumes (billion\$) | | | | | Reverse Mortgages (HECM) ²⁰ |
|--------------------------------|--------------------------------|-----------------------------|----------------------|-------------------|--------|--|
| | Forward Mortgages ^a | | | | | |
| | Home Purchase | Conventional Loan Refinance | FHA-to-FHA Refinance | All Forward Loans | | |
| Fiscal Year | | | | | | |
| 2002 | 91,025 | 7,404 | 37,713 | 136,142 | 1,998 | |
| 2003 | 73,026 | 7,602 | 66,683 | 147,311 | 3,020 | |
| 2004 | 66,835 | 6,998 | 33,787 | 107,621 | 6,895 | |
| 2005 | 40,196 | 4,258 | 13,521 | 57,975 | 8,864 | |
| 2006 | 37,102 | 8,521 | 6,110 | 51,733 | 17,925 | |
| 2007 | 35,003 | 16,095 | 5,419 | 56,516 | 24,635 | |
| 2008 | 95,374 | 61,525 | 14,907 | 171,806 | 24,248 | |
| 2009 | 171,672 | 86,984 | 71,729 | 330,385 | 30,074 | |
| 2010 | 191,602 | 56,431 | 49,469 | 297,502 | 21,074 | |
| 2011 | 134,357 | 36,846 | 46,440 | 217,642 | 18,214 | |
| 2012 | 124,454 | 23,473 | 65,345 | 213,272 | 13,163 | |
| 2013 | 124,934 | 16,932 | 98,249 | 240,115 | 14,682 | |
| 2014 | 105,721 | 9,410 | 20,085 | 135,216 | 13,521 | |
| 2015 | 140,262 | 14,428 | 58,431 | 213,121 | 16,130 | |
| 2016 | 171,632 | 20,550 | 53,223 | 245,405 | 14,660 | |
| 2017 | 178,621 | 25,303 | 47,030 | 250,954 | 17,691 | |
| 2018 | 160,843 | 21,673 | 26,472 | 208,988 | 16,189 | |
| Fiscal Year and Quarter | | | | | | |
| 2013 Q1 | 30,994 | 4,135 | 28,596 | 63,725 | 2,821 | |
| 2013 Q2 | 27,887 | 4,793 | 30,991 | 63,671 | 3,839 | |
| 2013 Q3 | 32,330 | 4,510 | 26,445 | 63,285 | 4,090 | |
| 2013 Q4 | 33,724 | 3,494 | 12,217 | 49,435 | 3,932 | |
| 2014 Q1 | 27,346 | 2,577 | 5,903 | 35,825 | 3,434 | |
| 2014 Q2 | 21,424 | 2,316 | 4,560 | 28,300 | 3,997 | |
| 2014 Q3 | 25,849 | 2,212 | 4,755 | 32,816 | 3,202 | |
| 2014 Q4 | 31,102 | 2,305 | 4,868 | 38,275 | 2,887 | |
| 2015 Q1 | 27,596 | 2,604 | 4,975 | 35,175 | 3,802 | |
| 2015 Q2 | 23,975 | 2,658 | 10,561 | 37,195 | 3,916 | |
| 2015 Q3 | 36,989 | 4,012 | 25,064 | 66,065 | 3,871 | |
| 2015 Q4 | 51,702 | 5,154 | 17,831 | 74,687 | 4,540 | |
| 2016 Q1 | 40,563 | 5,038 | 12,480 | 58,081 | 3,625 | |
| 2016 Q2 | 36,486 | 5,035 | 12,009 | 53,529 | 3,906 | |
| 2016 Q3 | 43,525 | 4,975 | 13,038 | 61,538 | 3,527 | |
| 2016 Q4 | 51,059 | 5,502 | 15,696 | 72,257 | 3,603 | |
| 2017 Q1 | 44,120 | 6,027 | 18,149 | 68,296 | 3,892 | |
| 2017 Q2 | 39,558 | 7,137 | 13,048 | 59,742 | 4,548 | |
| 2017 Q3 | 46,441 | 6,146 | 8,251 | 60,838 | 4,801 | |
| 2017Q4 | 48,502 | 5,992 | 7,583 | 62,077 | 4,450 | |
| 2018Q1 | 40,239 | 5,939 | 8,508 | 54,686 | 4,584 | |
| 2018Q2 | 34,803 | 5,782 | 8,373 | 48,958 | 5,388 | |
| 2018Q3 | 41,677 | 5,008 | 4,914 | 51,598 | 3,183 | |
| 2018Q4 | 44,124 | 4,944 | 4,677 | 53,746 | 3,034 | |

^a Starting in FY 2008 Q4, these counts include 203(k) purchase and rehabilitation loans and 234(c) condominium loans.

^b The FHA reverse-mortgage insurance program is called Home Equity Conversion Mortgage (HECM). Starting in FY 2009 (2008 Q4), all new HECM endorsements are now in the Mutual Mortgage Insurance Fund. Previous endorsements, by law, remain in the General and Special Risk Insurance Fund.

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

Exhibit A-3. Borrower Credit Score Distributions on New Endorsements (%)

| Fiscal Year | Quarter | Credit Score Range ^a | | | | |
|-------------|---------|---------------------------------|---------|---------|---------|---------|
| | | 500–619 | 620–639 | 640–679 | 680–719 | 720–850 |
| 2011 | Oct–Dec | 4.1 | 9.8 | 26.1 | 23.1 | 36.9 |
| | Jan–Mar | 3.4 | 6.4 | 28.5 | 24.1 | 37.7 |
| | Apr–Jun | 3.6 | 6.9 | 30.6 | 23.7 | 35.3 |
| | Jul–Sep | 4.3 | 8.1 | 31.0 | 23.7 | 33.0 |
| 2012 | Oct–Dec | 4.1 | 8.0 | 31.2 | 23.8 | 32.9 |
| | Jan–Mar | 3.6 | 7.7 | 31.0 | 23.8 | 33.9 |
| | Apr–Jun | 3.3 | 7.2 | 32.2 | 24.2 | 33.2 |
| | Jul–Sep | 3.0 | 6.8 | 34.2 | 25.3 | 30.8 |
| 2013 | Oct–Dec | 2.8 | 6.4 | 35.1 | 25.9 | 29.8 |
| | Jan–Mar | 2.5 | 5.9 | 35.9 | 26.6 | 29.2 |
| | Apr–Jun | 2.0 | 5.7 | 38.2 | 27.3 | 26.8 |
| | Jul–Sep | 2.1 | 6.2 | 40.4 | 27.7 | 23.5 |
| 2014 | Oct–Dec | 2.6 | 7.7 | 42.4 | 27.2 | 20.1 |
| | Jan–Mar | 3.3 | 9.1 | 42.0 | 26.6 | 19.0 |
| | Apr–Jun | 3.8 | 10.4 | 42.1 | 26.3 | 17.4 |
| | Jul–Sep | 4.6 | 11.2 | 41.3 | 25.9 | 17.0 |
| 2015 | Oct–Dec | 5.9 | 12.3 | 40.4 | 25.4 | 16.0 |
| | Jan–Mar | 5.8 | 12.4 | 40.0 | 25.6 | 16.2 |
| | Apr–Jun | 5.3 | 11.6 | 38.0 | 26.5 | 18.6 |
| | Jul–Sep | 5.4 | 11.4 | 36.9 | 26.6 | 19.7 |
| 2016 | Oct–Dec | 6.0 | 11.9 | 36.7 | 26.1 | 19.5 |
| | Jan–Mar | 6.2 | 12.0 | 36.4 | 26.4 | 19.1 |
| | Apr–Jun | 6.0 | 12.8 | 37.3 | 25.7 | 18.3 |
| | Jul–Sep | 5.9 | 12.7 | 37.1 | 25.9 | 18.4 |
| 2017 | Oct–Dec | 6.5 | 12.9 | 36.6 | 25.8 | 18.2 |
| | Jan–Mar | 7.4 | 12.9 | 36.2 | 25.4 | 18.1 |
| | Apr–Jun | 8.3 | 13.7 | 36.5 | 24.4 | 17.1 |
| | Jul–Sep | 9.3 | 13.9 | 36.2 | 23.9 | 16.7 |
| 2018 | Oct–Dec | 10.3 | 14.4 | 36.4 | 23.2 | 15.7 |
| | Jan–Mar | 11.4 | 14.5 | 36.4 | 22.8 | 14.9 |
| | Apr–Jun | 11.6 | 15.3 | 37.4 | 22.1 | 13.6 |
| | Jul–Sep | 12.1 | 15.4 | 37.3 | 21.7 | 13.5 |

NOTES: Shares are based on loan counts. Excludes streamline refinancing.

^a Credit scores are cobranded between the three major credit repositories (Equifax, Experian, TransUnion) and Fair Isaac Corporation (FICO). Values can range from 300 to 850. FHA policy permits credit scores of 580 and above, except for loans with equity positions of 10 percent or more, which may have credit scores as low as 500. They are grouped here according to the “decision” score used for loan underwriting. The decision score represents the weakest borrower on a loan application when there are multiple applicants. Streamline refinance loans do not require full underwriting; therefore, they are not represented here.

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

Exhibit A-4. Average Borrower Credit Scores on New Endorsements

| Fiscal Year | Quarter | Mortgage Purpose | | | |
|-------------|---------|------------------|-----------------------------|-------------------------|------------------|
| | | Home Purchase | Conventional Loan Refinance | FHA-to-FHA Refinance[2] | All ^a |
| 2012 | Oct–Dec | 695 | 702 | 705 | 697 |
| | Jan–Mar | 695 | 707 | 708 | 698 |
| | Apr–Jun | 695 | 711 | 709 | 698 |
| | Jul–Sep | 695 | 698 | 704 | 696 |
| 2013 | Oct–Dec | 694 | 696 | 703 | 695 |
| | Jan–Mar | 694 | 697 | 703 | 695 |
| | Apr–Jun | 692 | 694 | 699 | 693 |
| | Jul–Sep | 690 | 685 | 690 | 689 |
| 2014 | Oct–Dec | 686 | 677 | 679 | 685 |
| | Jan–Mar | 684 | 674 | 675 | 682 |
| | Apr–Jun | 681 | 672 | 673 | 680 |
| | Jul–Sep | 680 | 671 | 671 | 679 |
| 2015 | Oct–Dec | 678 | 669 | 669 | 676 |
| | Jan–Mar | 678 | 673 | 675 | 677 |
| | Apr–Jun | 681 | 678 | 679 | 680 |
| | Jul–Sep | 682 | 677 | 674 | 681 |
| 2016 | Oct–Dec | 682 | 676 | 673 | 681 |
| | Jan–Mar | 681 | 676 | 672 | 680 |
| | Apr–Jun | 679 | 677 | 673 | 679 |
| | Jul–Sep | 680 | 677 | 673 | 679 |
| 2017 | Oct–Dec | 679 | 677 | 673 | 678 |
| | Jan–Mar | 679 | 675 | 669 | 678 |
| | Apr–Jun | 676 | 672 | 666 | 675 |
| | Jul–Sep | 676 | 670 | 664 | 674 |
| 2018 | Oct–Dec | 674 | 668 | 663 | 672 |
| | Jan–Mar | 672 | 666 | 661 | 670 |
| | Apr–Jun | 670 | 664 | 660 | 668 |
| | Jul–Sep | 669 | 663 | 658 | 668 |

NOTE: Credit scores are cobranded between the three major credit repositories (Equifax, Experian, TransUnion) and Fair Isaac Corporation (FICO). Values can range from 300 to 850. FHA policy permits credit scores of 580 and above, except for loans with equity positions of 10 percent or more, which may have credit scores as low as 500. They are grouped here according to the “decision” score used for loan underwriting. The decision score represents the weakest borrower on a loan application when there are multiple applicants. Streamline refinance loans do not require full underwriting; therefore, they are not represented here.

^a These include only fully-underwritten loans and exclude streamline refinancing

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

Exhibit A-5. Loan-to-Value (LTV) Ratio Distribution on New Endorsements

| Fiscal Year | Quarter | LTV Categories (Shares in each row add up to 100%) | | | |
|-------------|---------|---|-------|-------|--------------------|
| | | Up to 80 | 81-90 | 91-95 | 96-98 ^a |
| 2013 | Oct-Dec | 5.2 | 10.0 | 10.1 | 74.7 |
| | Jan-Mar | 6.0 | 11.5 | 10.8 | 71.7 |
| | Apr-Jun | 5.6 | 10.3 | 9.8 | 74.4 |
| | Jul-Sep | 5.3 | 9.7 | 8.9 | 76.1 |
| 2014 | Oct-Dec | 5.6 | 10.0 | 9.0 | 75.5 |
| | Jan-Mar | 6.1 | 10.9 | 9.4 | 73.6 |
| | Apr-Jun | 5.6 | 9.6 | 9.0 | 75.7 |
| | Jul-Sep | 5.5 | 9.5 | 9.1 | 76.0 |
| 2015 | Oct-Dec | 6.7 | 10.8 | 8.9 | 73.6 |
| | Jan-Mar | 7.1 | 11.7 | 9.0 | 72.3 |
| | Apr-Jun | 6.1 | 11.6 | 8.8 | 73.5 |
| | Jul-Sep | 6.4 | 11.1 | 8.4 | 74.1 |
| 2016 | Oct-Dec | 7.5 | 12.6 | 8.3 | 71.6 |
| | Jan-Mar | 8.1 | 13.3 | 8.3 | 70.3 |
| | Apr-Jun | 6.8 | 11.8 | 7.7 | 73.7 |
| | Jul-Sep | 6.9 | 12.0 | 7.8 | 73.3 |
| 2017 | Oct-Dec | 8.1 | 14.0 | 7.7 | 70.2 |
| | Jan-Mar | 9.7 | 16.0 | 7.7 | 66.6 |
| | Apr-Jun | 8.0 | 13.8 | 7.6 | 70.6 |
| | Jul-Sep | 8.0 | 14.5 | 7.5 | 70.1 |
| 2018 | Oct-Dec | 8.8 | 16.4 | 7.4 | 67.3 |
| | Jan-Mar | 9.6 | 17.6 | 7.0 | 65.8 |
| | Apr-Jun | 7.9 | 14.4 | 6.9 | 70.8 |
| | Jul-Sep | 8.0 | 14.9 | 7.1 | 70.0 |

NOTE: Shares are based on mortgage counts. Excludes streamline refinancing.

^a In accordance with statutory requirements for determining eligibility of mortgages for FHA insurance, HUD measures loan-to-value (LTV) ratio without including any financed mortgage insurance premium in the mortgage balance.

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

Exhibit A-6. Average Loan-to-Value (LTV) Ratios on New Endorsements (%)

| Fiscal Year | Quarter | Mortgage Purpose | | | |
|-------------|---------|------------------|-----------------------------|-----------------------------------|------------------|
| | | Home Purchase | Conventional Loan Refinance | FHA-to-FHA Refinance ^a | All ^a |
| 2011 | Oct–Dec | 95.6 | 87.1 | 88.9 | 93.2 |
| | Jan–Mar | 95.6 | 85.7 | 87.7 | 92.7 |
| | Apr–Jun | 95.7 | 85.0 | 86.9 | 93.7 |
| | Jul–Sep | 95.9 | 85.3 | 87.5 | 94.3 |
| 2012 | Oct–Dec | 96.0 | 85.3 | 88.8 | 94.1 |
| | Jan–Mar | 96.0 | 83.4 | 88.4 | 93.4 |
| | Apr–Jun | 96.0 | 81.8 | 87.9 | 93.3 |
| | Jul–Sep | 96.0 | 83.7 | 87.7 | 94.4 |
| 2013 | Oct–Dec | 96.0 | 84.4 | 87.8 | 94.3 |
| | Jan–Mar | 95.9 | 84.6 | 87.5 | 94.0 |
| | Apr–Jun | 95.9 | 84.0 | 86.5 | 94.1 |
| | Jul–Sep | 95.8 | 82.9 | 85.4 | 94.3 |
| 2014 | Oct–Dec | 95.7 | 82.1 | 83.8 | 94.2 |
| | Jan–Mar | 95.7 | 82.2 | 83.4 | 94.0 |
| | Apr–Jun | 95.7 | 81.2 | 83.6 | 94.2 |
| | Jul–Sep | 95.7 | 80.7 | 83.2 | 94.2 |
| 2015 | Oct–Dec | 95.6 | 79.9 | 82.9 | 93.7 |
| | Jan–Mar | 95.7 | 80.0 | 84.6 | 93.5 |
| | Apr–Jun | 95.7 | 81.1 | 85.7 | 93.7 |
| | Jul–Sep | 95.7 | 80.1 | 83.5 | 93.7 |
| 2016 | Oct–Dec | 95.7 | 79.4 | 82.6 | 93.2 |
| | Jan–Mar | 95.7 | 78.9 | 82.3 | 92.9 |
| | Apr–Jun | 95.8 | 79.3 | 82.5 | 93.4 |
| | Jul–Sep | 95.7 | 79.1 | 82.3 | 93.4 |
| 2017 | Oct–Dec | 95.7 | 78.9 | 82.2 | 92.9 |
| | Jan–Mar | 95.8 | 78.6 | 81.4 | 92.2 |
| | Apr–Jun | 95.8 | 78.1 | 81.2 | 92.9 |
| | Jul–Sep | 95.7 | 78.0 | 81.2 | 92.8 |
| 2018 | Oct–Dec | 95.7 | 78.3 | 81.5 | 92.4 |
| | Jan–Mar | 95.7 | 78.2 | 81.4 | 92.0 |
| | Apr–Jun | 95.7 | 77.8 | 81.2 | 92.9 |
| | Jul–Sep | 95.6 | 77.5 | 80.9 | 92.8 |

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.

^a These include only fully-underwritten loans and exclude streamline refinancing.

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

Exhibit A-7. Termination Claim Type and Loss Severity Rates

| Fiscal Year | Quarter | Loss Rates (% Unpaid Principal Balance) | | | Disposition Counts | | | REO Alternatives Share of Dispositions |
|-------------|----------------------|--|----------------------------|-------------------|--------------------|--|--------------------|--|
| | | REO Loss Rate | REO Alternatives Loss Rate | Overall Loss Rate | REO Dispositions | REO Alternatives Dispositions ^b | Total Dispositions | |
| 2013 | Oct-Dec | 66.4 | 54.9 | 61.5 | 26,269 | 13,916 | 40,185 | 34.6 |
| | Jan-Mar | 64.2 | 49.0 | 58.4 | 27,132 | 12,191 | 39,323 | 31.0 |
| | Apr-Jun | 60.6 | 53.9 | 57.0 | 29,159 | 24,629 | 53,788 | 45.8 |
| | Jul-Sep | 59.6 | 51.3 | 55.0 | 28,722 | 29,522 | 58,244 | 50.7 |
| 2014 | Oct-Dec | 61.3 | 47.1 | 53.8 | 24,467 | 21,005 | 45,472 | 46.2 |
| | Jan-Mar | 62.9 | 50.3 | 54.7 | 20,110 | 26,248 | 46,358 | 56.6 |
| | Apr-Jun | 59.1 | 44.6 | 50.4 | 16,089 | 18,401 | 34,490 | 53.4 |
| | Jul-Sep | 57.6 | 46.6 | 49.5 | 12,982 | 26,582 | 39,564 | 67.2 |
| 2015 | Oct-Dec | 59.7 | 44.3 | 49.6 | 13,147 | 20,019 | 33,166 | 60.4 |
| | Jan-Mar | 61.4 | 43.2 | 52.6 | 14,019 | 10,374 | 24,393 | 42.5 |
| | Apr-June | 59.6 | 41.0 | 51.5 | 15,980 | 10,015 | 25,995 | 38.5 |
| | Jul-Sep | 60.4 | 46.4 | 52.7 | 16,940 | 15,592 | 32,532 | 47.9 |
| 2016 | Oct-Dec | 62.8 | 47.4 | 54.5 | 16,507 | 15,122 | 31,629 | 47.8 |
| | Jan-Mar | 63.4 | 46.0 | 54.2 | 14,749 | 13,319 | 28,068 | 47.5 |
| | Apr-Jun | 59.9 | 47.2 | 52.8 | 13,081 | 13,206 | 26,287 | 50.2 |
| | Jul-Sep | 59.8 | 50.2 | 53.9 | 12,836 | 16,469 | 29,305 | 56.2 |
| 2017 | Oct-Dec | 60.7 | 49.8 | 53.8 | 12,922 | 18,330 | 31,252 | 58.7 |
| | Jan-Mar | 61.8 | 40.1 | 50.7 | 11,821 | 10,876 | 22,697 | 47.9 |
| | Apr-Jun | 58.7 | 40.7 | 48.0 | 10,636 | 14,159 | 24,795 | 57.1 |
| | Jul-Sep | 58.3 | 40.1 | 45.9 | 7,958 | 15,767 | 23,725 | 66.5 |
| 2018 | Oct-Dec | 56.2 | 38.2 | 43.8 | 6,989 | 14,415 | 21,404 | 67.3 |
| | Jan-Mar | 55.3 | 41.3 | 45.8 | 7,115 | 13,334 | 20,449 | 65.2 |
| | Apr-Jun | 50.8 | 39.9 | 43.0 | 6,236 | 14,298 | 20,534 | 69.6 |
| | Jul-Sep ^a | 46.8 | 38.5 | 40.6 | 3,425 | 8,696 | 12,121 | 71.7 |

NOTE: Real Estate Owned (REO) refers to properties that HUD has assumed ownership of through the conveyance of title.

^a July and August 2018 only

^b REO alternatives comprise short sales, claims without conveyance of title (CWCOT), and note sales. Short sales refer to the sale of property where the defaulted borrower sells his/her home and uses the net sale proceeds to satisfy the mortgage debt even though the proceeds are less than the amount owed. Short sales are part of the pre-foreclosure sale (PFS) program. CWCOT is a program approved under Section 426 of the Housing and Urban-Rural Recovery Act of 1983. It is designed to reduce the number of single-family mortgages owned by HUD by authorizing the payment of claims to mortgagees without conveying (transferring) the title to the property to HUD. Note sale refers to the sale of defaulted mortgage notes in order to reduce foreclosure costs for borrowers. Note sales are conducted through the Distressed Asset Stabilization Program (DASP).

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

Exhibit A-8. Cash Out Refinance

| Fiscal Year | Quarter | Conventional Cash-Out | FHA Cash-Out | Conventional No Cash-Out | FHA No Cash-Out | Streamline | Purchase | Total |
|-------------|---------|-----------------------|--------------|--------------------------|-----------------|------------|----------|---------|
| 2010 | Oct-Dec | 6.5 | 0.7 | 11.2 | 0.8 | 18.2 | 62.5 | 487,502 |
| | Jan-Mar | 8.0 | 0.9 | 14.0 | 1.8 | 14.2 | 61.1 | 402,103 |
| | Apr-Jun | 6.4 | 0.8 | 10.6 | 1.6 | 5.7 | 75.0 | 386,303 |
| | Jul-Sep | 6.1 | 0.9 | 10.5 | 2.2 | 11.5 | 68.8 | 391,004 |
| 2011 | Oct-Dec | 5.6 | 1.0 | 11.9 | 3.4 | 25.1 | 53.0 | 371,346 |
| | Jan-Mar | 7.1 | 1.1 | 13.4 | 3.4 | 16.0 | 59.0 | 285,839 |
| | Apr-Jun | 5.6 | 0.8 | 9.5 | 2.1 | 8.4 | 73.6 | 273,066 |
| | Jul-Sep | 4.4 | 0.8 | 6.9 | 1.9 | 6.9 | 79.0 | 266,421 |
| 2012 | Oct-Dec | 4.4 | 0.9 | 8.1 | 3.5 | 14.3 | 68.8 | 255,795 |
| | Jan-Mar | 4.5 | 0.9 | 8.7 | 3.9 | 22.3 | 59.7 | 278,210 |
| | Apr-Jun | 4.0 | 0.8 | 8.0 | 3.6 | 22.3 | 61.2 | 316,059 |
| | Jul-Sep | 2.5 | 0.6 | 4.3 | 2.1 | 31.3 | 59.2 | 334,435 |
| 2013 | Oct-Dec | 2.3 | 0.7 | 4.1 | 2.2 | 40.3 | 50.4 | 353,126 |
| | Jan-Mar | 2.5 | 0.7 | 4.8 | 2.5 | 44.5 | 44.9 | 350,354 |
| | Apr-Jun | 2.4 | 0.8 | 4.4 | 2.2 | 39.4 | 50.9 | 356,380 |
| | Jul-Sep | 2.6 | 0.9 | 4.1 | 1.5 | 25.6 | 65.2 | 284,985 |
| 2014 | Oct-Dec | 3.1 | 1.3 | 3.9 | 1.1 | 17.2 | 73.4 | 208,486 |
| | Jan-Mar | 3.4 | 1.7 | 4.7 | 1.3 | 16.1 | 72.9 | 164,491 |
| | Apr-Jun | 3.1 | 1.5 | 3.9 | 1.2 | 13.9 | 76.4 | 193,632 |
| | Jul-Sep | 3.0 | 1.7 | 3.2 | 1.1 | 11.8 | 79.3 | 219,742 |
| 2015 | Oct-Dec | 3.9 | 2.2 | 4.0 | 1.5 | 11.7 | 76.8 | 201,598 |
| | Jan-Mar | 3.8 | 2.2 | 4.0 | 2.4 | 21.5 | 66.2 | 200,138 |
| | Apr-Jun | 3.0 | 2.0 | 3.4 | 3.1 | 29.1 | 59.4 | 334,655 |
| | Jul-Sep | 3.7 | 2.3 | 3.5 | 2.0 | 18.1 | 70.4 | 379,839 |
| 2016 | Oct-Dec | 4.9 | 2.8 | 4.1 | 1.9 | 16.3 | 69.9 | 301,185 |
| | Jan-Mar | 5.4 | 3.1 | 4.0 | 2.0 | 18.0 | 67.4 | 277,425 |
| | Apr-Jun | 4.8 | 2.8 | 3.4 | 2.0 | 16.0 | 71.0 | 317,095 |
| | Jul-Sep | 4.8 | 2.9 | 3.0 | 1.7 | 16.7 | 70.9 | 362,343 |
| 2017 | Oct-Dec | 5.6 | 3.6 | 3.3 | 2.1 | 20.1 | 65.3 | 337,517 |
| | Jan-Mar | 7.7 | 4.9 | 4.2 | 1.8 | 15.9 | 65.5 | 298,292 |
| | Apr-Jun | 6.9 | 4.5 | 3.2 | 1.2 | 8.7 | 75.4 | 305,533 |
| | Jul-Sep | 7.2 | 5.3 | 2.7 | 1.1 | 6.4 | 77.3 | 305,092 |
| 2018 | Oct-Dec | 8.3 | 6.6 | 2.9 | 1.3 | 7.8 | 73.1 | 267,638 |
| | Jan-Mar | 9.2 | 7.3 | 3.0 | 1.3 | 8.3 | 70.8 | 235,452 |
| | Apr-Jun | 7.7 | 6.1 | 2.3 | 0.8 | 2.8 | 80.4 | 252,328 |
| | Jul-Sep | 7.8 | 6.6 | 1.9 | 0.6 | 1.5 | 81.6 | 258,902 |

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

Exhibit A-9. Debt-to-Income (DTI) Ratio

| Share of FHA Endorsed Purchase Mortgages | | | | | | |
|--|---------|------|-----------|------------|-------|-------------|
| Endorsement Fiscal Year | Quarter | <=36 | >36 - <43 | >=43 - <50 | >= 50 | Average DTI |
| 2012 | Oct-Dec | 30.6 | 25.4 | 27.5 | 16.5 | 40.6 |
| | Jan-Mar | 31.0 | 25.4 | 27.6 | 16.0 | 40.5 |
| | Apr-Jun | 31.8 | 25.8 | 27.3 | 15.1 | 40.2 |
| | Jul-Sep | 32.2 | 26.1 | 27.4 | 14.4 | 40.1 |
| 2013 | Oct-Dec | 32.8 | 26.5 | 27.0 | 13.8 | 39.9 |
| | Jan-Mar | 32.4 | 26.6 | 27.3 | 13.7 | 40.0 |
| | Apr-Jun | 32.8 | 27.0 | 27.4 | 12.8 | 39.8 |
| | Jul-Sep | 30.5 | 27.1 | 28.5 | 13.9 | 40.4 |
| 2014 | Oct-Dec | 28.8 | 28.1 | 28.7 | 14.4 | 40.7 |
| | Jan-Mar | 28.6 | 28.5 | 28.4 | 14.5 | 40.7 |
| | Apr-Jun | 29.6 | 29.0 | 27.5 | 14.0 | 40.4 |
| | Jul-Sep | 29.0 | 28.9 | 27.6 | 14.6 | 40.6 |
| 2015 | Oct-Dec | 28.6 | 28.9 | 27.5 | 15.0 | 40.7 |
| | Jan-Mar | 29.2 | 29.3 | 26.9 | 14.5 | 40.5 |
| | Apr-Jun | 31.3 | 29.0 | 25.9 | 13.8 | 40.1 |
| | Jul-Sep | 29.9 | 28.4 | 26.8 | 15.0 | 40.5 |
| 2016 | Oct-Dec | 28.7 | 28.3 | 27.4 | 15.5 | 40.7 |
| | Jan-Mar | 28.4 | 28.0 | 27.2 | 16.4 | 40.9 |
| | Apr-Jun | 29.0 | 28.0 | 26.8 | 16.2 | 40.8 |
| | Jul-Sep | 28.5 | 27.5 | 26.9 | 17.1 | 41.0 |
| 2017 | Oct-Dec | 27.5 | 26.8 | 27.7 | 18.0 | 41.3 |
| | Jan-Mar | 24.9 | 25.4 | 29.2 | 20.5 | 42.0 |
| | Apr-Jun | 24.8 | 25.3 | 29.2 | 20.7 | 42.1 |
| | Jul-Sep | 24.0 | 24.9 | 29.2 | 21.9 | 42.3 |
| 2018 | Oct-Dec | 23.3 | 24.4 | 29.3 | 23.0 | 42.6 |
| | Jan-Mar | 22.1 | 23.4 | 29.6 | 24.9 | 43.0 |
| | Apr-Jun | 21.2 | 23.6 | 30.0 | 25.2 | 43.2 |
| | Jul-Sep | 20.3 | 23.4 | 30.3 | 26.0 | 43.5 |

SOURCE: US Department of HUD/FHA, October 2018

Exhibit A-10. Down Payment Assistance Program (DPA)

| Source of Down Payment Assistance (DPA) | | | | | | | | | |
|---|----------|------------|------|----------|-----|------------------------------|------|--------|-----|
| Endorsement Fiscal Year | Quarters | Government | | Relative | | Non-Government/ Non-Relative | | No DPA | |
| | | Share | SDQ | Share | SDQ | Share | SDQ | Share | SDQ |
| 2011 | Oct-Dec | 5.7 | 14.5 | 22.8 | 8.5 | 0.5 | 12.5 | 71.0 | 6.0 |
| | Jan-Mar | 7.2 | 13.0 | 22.5 | 7.5 | 0.4 | 7.0 | 69.8 | 5.1 |
| | Apr-Jun | 7.7 | 12.1 | 20.6 | 7.3 | 0.5 | 8.9 | 71.3 | 5.0 |
| | Jul-Sept | 7.6 | 11.7 | 22.3 | 7.2 | 0.5 | 7.9 | 69.7 | 4.8 |
| 2012 | Oct-Dec | 8.2 | 10.8 | 23.1 | 7.0 | 0.6 | 8.6 | 68.1 | 4.7 |
| | Jan-Mar | 8.0 | 10.3 | 23.3 | 6.3 | 0.4 | 8.5 | 68.3 | 4.5 |
| | Apr-Jun | 7.5 | 10.1 | 20.7 | 6.5 | 0.3 | 8.7 | 71.4 | 4.5 |
| | Jul-Sept | 7.5 | 9.2 | 21.9 | 5.8 | 0.3 | 9.5 | 70.3 | 4.2 |
| 2013 | Oct-Dec | 7.7 | 8.9 | 22.5 | 5.7 | 0.4 | 6.0 | 69.4 | 4.1 |
| | Jan-Mar | 8.5 | 7.9 | 22.5 | 5.4 | 0.4 | 6.6 | 68.6 | 4.1 |
| | Apr-Jun | 8.1 | 7.6 | 21.0 | 5.5 | 0.4 | 6.0 | 70.5 | 4.2 |
| | Jul-Sept | 4.3 | 8.7 | 23.9 | 5.4 | 0.4 | 5.6 | 71.5 | 4.3 |
| 2014 | Oct-Dec | 7.2 | 7.8 | 26.2 | 5.7 | 0.4 | 5.1 | 66.2 | 4.3 |
| | Jan-Mar | 8.6 | 7.8 | 26.5 | 5.5 | 0.5 | 4.9 | 64.4 | 4.3 |
| | Apr-Jun | 8.8 | 7.2 | 24.0 | 5.8 | 0.7 | 4.2 | 66.6 | 4.4 |
| | Jul-Sept | 8.9 | 6.9 | 25.7 | 5.7 | 1.0 | 5.6 | 64.4 | 4.2 |
| 2015 | Oct-Dec | 9.6 | 6.6 | 27.5 | 6.1 | 1.1 | 5.6 | 61.8 | 4.4 |
| | Jan-Mar | 10.3 | 6.7 | 27.1 | 6.0 | 1.3 | 4.6 | 61.2 | 4.4 |
| | Apr-Jun | 9.6 | 6.1 | 24.3 | 5.4 | 1.6 | 4.3 | 64.4 | 4.1 |
| | Jul-Sept | 10.0 | 5.3 | 25.6 | 5.0 | 1.8 | 4.3 | 62.6 | 3.6 |
| 2016 | Oct-Dec | 10.9 | 5.0 | 27.3 | 4.9 | 2.2 | 4.2 | 59.6 | 3.4 |
| | Jan-Mar | 10.6 | 4.2 | 26.6 | 4.7 | 2.2 | 4.0 | 60.6 | 3.2 |
| | Apr-Jun | 9.9 | 4.0 | 25.1 | 4.5 | 1.6 | 3.7 | 63.4 | 3.2 |
| | Jul-Sept | 9.8 | 4.0 | 26.4 | 4.4 | 1.6 | 4.4 | 62.1 | 2.9 |
| 2017 | Oct-Dec | 10.3 | 3.4 | 26.9 | 4.0 | 1.8 | 3.7 | 61.0 | 2.7 |
| | Jan-Mar | 10.5 | 3.6 | 26.9 | 3.9 | 2.0 | 3.2 | 60.6 | 2.5 |
| | Apr-Jun | 10.4 | 3.2 | 24.8 | 3.5 | 1.6 | 2.9 | 63.2 | 2.1 |
| | Jul-Sept | 11.0 | 2.4 | 26.1 | 2.5 | 1.4 | 2.5 | 61.5 | 1.6 |
| 2018 | Oct-Dec | 11.8 | 1.6 | 26.4 | 1.6 | 1.3 | 1.5 | 60.5 | 1.0 |
| | Jan-Mar | 11.3 | 1.2 | 26.8 | 0.9 | 1.2 | 1.0 | 60.7 | 0.6 |
| | Apr-Jun | 10.8 | 0.3 | 25.3 | 0.3 | 1.3 | 0.3 | 62.7 | 0.2 |
| | Jul-Sept | 11.7 | 0.0 | 26.2 | 0.0 | 1.2 | 0.0 | 60.8 | 0.0 |

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

Exhibit A-11. Reverse Mortgage Program (HECM)

| Reverse Mortgage Loans (HECM) Claims By Type | | | | | | | | | |
|--|----------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|---------------|
| Fiscal Year | Quarter | Claim Type 1 | | Claim Type 2 | | Supplemental | | Total | |
| | | Number | MCA(\$M) | Number | MCA(\$M) | Number | MCA(\$M) | Number | MCA(\$M) |
| 2013 | Oct-Dec | 3,502 | 662 | 1,296 | 263 | 515 | 0 | 5,313 | 924 |
| | Jan-Mar | 3,324 | 628 | 1,568 | 346 | 59 | 12 | 4,951 | 985 |
| | Apr-Jun | 2,376 | 466 | 1,827 | 422 | 565 | 111 | 4,768 | 999 |
| | July-Sep | 2,546 | 514 | 1,323 | 316 | 1,018 | 202 | 4,887 | 1,033 |
| 2013 Total | | 11,748 | 2,269 | 6,014 | 1,347 | 2,157 | 420 | 19,919 | 4,036 |
| 2014 | Oct-Dec | 3,032 | 559 | 1,337 | 310 | 76 | 15.97 | 4,445 | 885 |
| | Jan-Mar | 2,977 | 584 | 1,827 | 400 | 49 | 8 | 4,853 | 992 |
| | Apr-Jun | 3,445 | 645 | 2,090 | 482 | 172 | 32 | 5,707 | 1,159 |
| | July-Sep | 2,819 | 511 | 1,874 | 429 | 429 | 80 | 5,122 | 1,021 |
| 2014 Total | | 12,273 | 2,299 | 7,128 | 1,621 | 726 | 136 | 20,127 | 4,056 |
| 2015 | Oct-Dec | 12,516 | 2,263 | 1,701 | 396 | 1,125 | 202 | 15,342 | 2,861 |
| | Jan-Mar | 7,142 | 1,320 | 1,880 | 457 | 4,259 | 795 | 13,281 | 2,571 |
| | Apr-Jun | 8,386 | 1,530 | 3,919 | 1,004 | 2,982 | 593 | 15,287 | 3,126 |
| | July-Sep | 6,222 | 1,159 | 3,810 | 978 | 3,952 | 770 | 13,984 | 2,906 |
| 2015 Total | | 34,266 | 6,271 | 11,310 | 2,835 | 12,318 | 2,359 | 57,894 | 11,465 |
| 2016 | Oct-Dec | 5,366 | 996 | 3,923 | 994 | 8,886 | 1,658 | 18,175 | 3,648 |
| | Jan-Mar | 5,854 | 1,100 | 3,874 | 984 | 11,526 | 2,175 | 21,254 | 4,259 |
| | Apr-Jun | 6,602 | 1,218 | 4,810 | 1,207 | 12,081 | 2,322 | 23,493 | 4,746 |
| | July-Sep | 6,021 | 1,115 | 5,941 | 1,464 | 18,517 | 3,478 | 30,479 | 6,056 |
| 2016 Total | | 23,843 | 4,429 | 18,548 | 4,648 | 51,010 | 9,632 | 93,401 | 18,709 |
| 2017 | Oct-Dec | 6,144 | 1,153 | 6,204 | 1,518 | 7,823 | 1,464 | 20,171 | 4,136 |
| | Jan-Mar | 7,203 | 1,363 | 5,783 | 1,414 | 6,623 | 1,237 | 19,609 | 4,014 |
| | Apr-Jun | 6,006 | 1,124 | 4,640 | 1,106 | 6,348 | 1,207 | 16,994 | 3,437 |
| | July-Sep | 4,739 | 907 | 5,653 | 1,317 | 5,811 | 1,104 | 16,203 | 3,328 |
| 2017 Total | | 24,092 | 4,548 | 22,280 | 5,355 | 26,605 | 5,012 | 72,977 | 14,915 |
| 2018 | Oct-Dec | 4,918 | 934 | 6,375 | 1,475 | 5,644 | 1,073 | 16,937 | 3,481 |
| | Jan-Mar | 4,702 | 925 | 5,424 | 1,249 | 5,496 | 1,059 | 15,622 | 3,232 |
| | Apr-Jun | 3,914 | 756 | 7,983 | 1,876 | 4,454 | 849 | 16,351 | 3,481 |
| | July-Sep | 4,076 | 786 | 8,109 | 1,880 | 3,910 | 770 | 16,095 | 3,435 |
| 2018 Total | | 17,610 | 3,400 | 27,891 | 6,480 | 19,504 | 3,751 | 65,005 | 13,631 |

^a Claims comprise claim types *Foreclosure*, *Deed in Lieu of Foreclosure*, and *Mortgagor's Short Sale*.

^b MCA is the maximum claim amount payable by HUD. It is defined as the initial value of the property or FHA loan limit, whichever is lower.

^c Details may not sum to total due to rounding.

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