

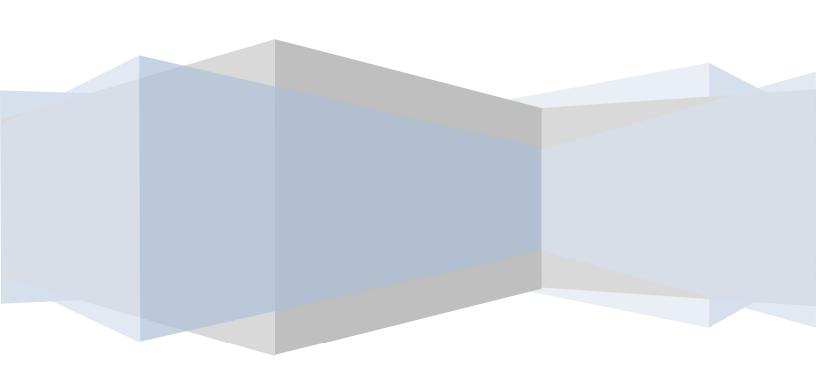


U.S. Department of Housing and Urban Development

# FHA Single-Family Mutual Mortgage Insurance Fund Programs

Quarterly Report to Congress FY 2016 Q4

Delivered: November 15, 2016



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

FY 2016 Q4 Data as of September 30, 2016

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

#### **FOREWORD**

On behalf of Secretary Castro and Principal Deputy Assistant Secretary Edward Golding, 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 2016 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, 2016 through September 30, 2016.

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 loan-guarantee 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 2016 on November 15, 2016. The FY 2016 Annual Report, which summarizes an independent actuary's exhaustive 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,

Jason Stayanovich

Deputy Assistant Secretary (Acting) 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
A) Cumulative volume of loan guarantee commitments that have been made during such fiscal year through the end of the quarter for which the report is submitted	Single-family forward endorsements during the fourth quarter increased by 14.2 percent by count from the prior quarter. Single-family forward endorsements by volume were \$72.2 billion, up by 17 percent from the prior quarter. The HECM count was nearly unchanged from the previous quarter. HECM endorsement volume, at \$3.6 billion for the third quarter of FY 2016, represents an increase of 2.2 percent from the previous quarter.	4, <u>16,</u> <u>17</u>	1, <u>A-1</u> , <u>A-2</u>
B) Types of loans insured, categorized by risk	The average credit score this quarter remained unchanged at 679. Share of 720+ credit score loans increased to 18.4 percent. Average borrower loan-to-value ratio remained at 93.4 percent.	5, 6, 7, 18, 19, 20, 21	2, 3, 4, A-3, A-4, A-5, A-6
C) Any significant changes between actual and projected claim and prepayment activity	Prepayment speeds this quarter were 67 percent higher than predicted counts. Claim payments are running 29 percent below predicted level by count and 37 percent below predicted level by dollar amount.	<u>8, 22</u>	<u>5, A-7</u>
D) Projected versus actual loss rates	The year-to-date net loss rate on claim activity of 52.71 percent remained below the actuarial projection of 53.89 percent.	<u>8</u>	<u>5</u>
E) Updated projections of the annual subsidy rates	The budget execution credit subsidy rates (CSR) for FY 2016 Q4 are at -3.70 percent and -0.69 percent for forward loans and HECMs, respectively.	9	<u>6</u>

Other	Summary	Page	Exhibit
F) MMI Fund Balances	The MMI Fund account balance at the end of FY 2016 Q4 was \$49.8 billion, down from \$51.0 billion last quarter.	<u>10</u>	7
G) Business-Operations Cash Flow	Core business-operations cash flow in FY 2016 Q4 was \$70 million. FHA paid \$5.0 billion in claims and property expenses, while receiving \$5.0 billion in revenues from premium collections, sale of notes and properties, and other revenue.	<u>11</u>	<u>8</u>
H) Early Payment Delinquency	The early payment delinquency (EPD) rate increased from the previous quarter from 0.30 to 0.31 percent.	<u>12</u>	9
I) Serious Delinquency Rates	The portfolio-level serious delinquency rate decreased this quarter to 4.92 percent, the lowest level in at least ten years.	<u>13, 14</u>	<u>10, 11</u>

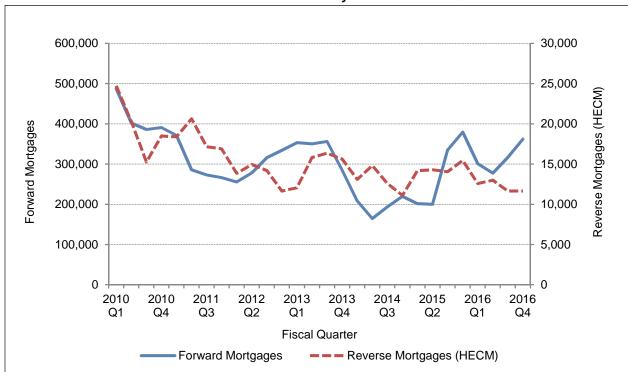
#### **Endorsement Activity**

During the fourth quarter of fiscal year (FY) 2016, the FHA endorsed 362,220 forward mortgages for insurance, up 14.2 percent from the prior quarter.

The dollar volume of refinance endorsements (Conventional to FHA, FHA to FHA) in this quarter was up 17.6 percent from the previous quarter, while the volume of all forward-loan endorsements was up 17.4 percent (Exhibit A-2).

FHA-to-FHA refinance activity, in terms of endorsed loans, increased by 17.5 percent from the quarter-earlier period, from 65,899 to 77,429.

The HECM endorsement volume, \$3.6 billion for the fourth quarter of FY 2016, is up 2.2 percent from the previous quarter. HECM endorsement counts in FY 2016 Q4 (11,646) were basically unchanged from FY 2016 Q3.



**Exhibit 1. Endorsement Counts by Fiscal Year and Quarter** 

#### **Borrower Credit Scores**

Average borrower credit scores remained at 679. This continues to be well above the levels preceding the mortgage and credit crisis (Exhibit 2, Exhibit A-4).

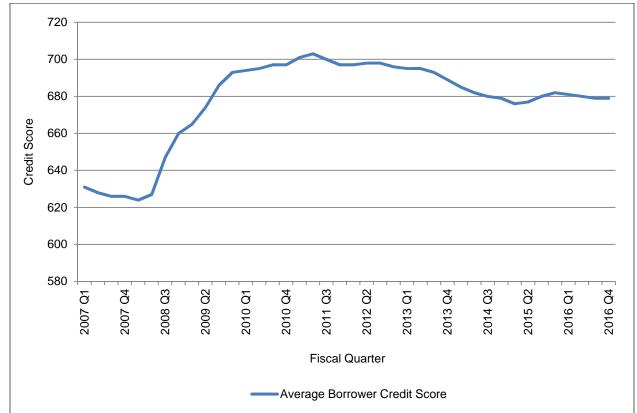


Exhibit 2. Average Borrower Credit Scores by Fiscal Year and Quarter

As shown in Exhibit 3, the distribution of borrower credit scores remained fairly consistent over the past two years. The core of the distribution is in the 640–679 range (37.1 percent). In the most recent quarter, the 680–850 scores saw a small increase after reaching a near historical low in early FY 2015 (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, loans with less than 620 credit score accounted for almost 25 percent of total originations in 2009, compared to 5.9 percent today. On the other hand, the share of loans with credit scores exceeding 720, which accounted for more than one-third of FHA's production in 2011, is now under 20 percent. The distribution has normalized with the core business of FHA in the 640–679 range.

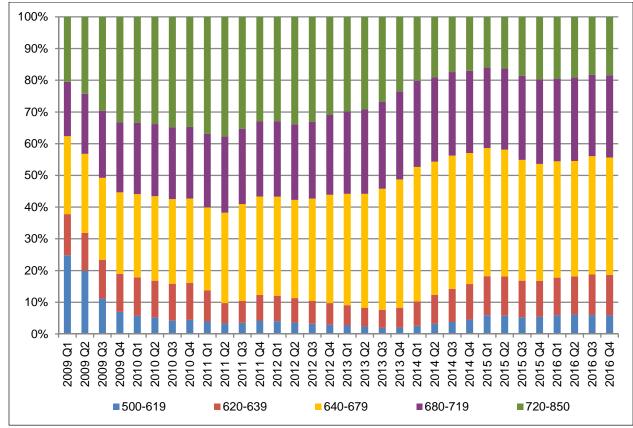


Exhibit 3. Distribution of Borrower Credit Scores by Fiscal Year and Quarter

#### Average Loan-to-Value (LTV)

The average LTV remained nearly unchanged for all FHA loans combined. Typically, LTV ratios of refinance loans are lower than home purchase loans; therefore, the portfolio-wide LTV may benefit from an increase in refinance activity. FHA activity consisted of a relatively balanced mix of home purchase and refinance loans over the last quarter, which is reflected in a nearly unchanged portfolio-wide LTV (Exhibit 4, Exhibit A-1, Exhibit A-5, Exhibit A-6).

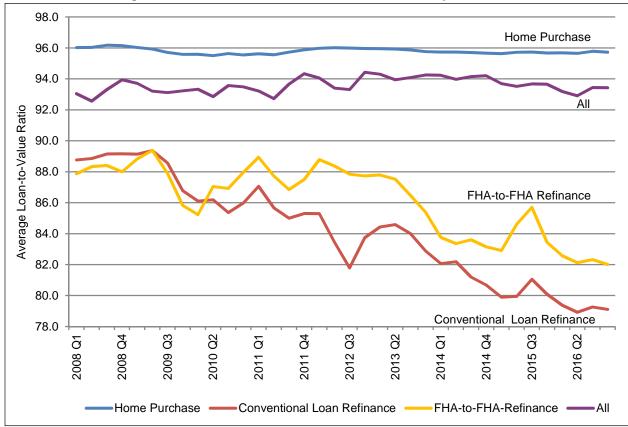


Exhibit 4. Average Loan-to-Value Ratios on New Endorsements by Fiscal Year and Quarter

NOTE: Excludes streamline refinance activity.

#### **Predicted and Actual Termination and Claim-Loss Rates**

The predicted-versus-actual comparisons for the fourth quarter of FY 2016 are presented in Exhibit 5. Prepayment speeds continue to be higher than predicted. Claims continue to be well below actuarial predictions. The number of claims through 2016 Q4 (107,227) is 29 percent less than predicted (150,546). 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 2015–Sep 2016	Year to Date Predicted <sup>a</sup>	Year to Date Actual	Deviation (Actual minus Predicted)	Percentage Deviation (Actual versus Predicted)
Prepayments (number)	610,250	1,019,464	409,214	67
Claims (number) <sup>b</sup>	150,546	107,227	-43,319	-29
Claims (\$ millions)b	19,454	12,277	-7,177	-37
Net Loss on Claims (%) <sup>c</sup>	53.89	52.71	-1.18	na

na = not applicable.

<sup>&</sup>lt;sup>a</sup> Projections of prepayment counts, claim counts, and claim dollars are modeled for the FY 2016 FHA financial statements. All projections shown here use quarterly forecasts and thus reflect cyclical trends throughout the year.

<sup>&</sup>lt;sup>b</sup> 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 loan-workout actions.

<sup>&</sup>lt;sup>c</sup> These rates are losses as a percentage of the defaulted loan balance, for both conveyance and pre-foreclosure-sale claims. Includes only loans in the MMI Fund.

#### **Budget Execution Credit Subsidy Rates**

The budget execution subsidy rate for forward loans for FY 2016 Q4 is -3.70 percent. The subsidy rate for HECM loans is -0.69 percent as of FY 2016 Q4 (Exhibit 6).

Exhibit 6. Budget Execution Credit Subsidy Rates, FY 2016 Q4

Type of Loan	Rate (%) <sup>a</sup>
Forward Loans	-3.70
Reverse Loans (HECM)	-0.69

<sup>&</sup>lt;sup>a</sup> 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 loan guarantees 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 guarantees, i.e., a negative subsidy. Loans 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 guarantees are in place, to reflect both actual experience and updated forecasts of future loan performance and insurance cash flows. SOURCE: U.S. Department of HUD/FHA, October 2016.

#### **MMI Fund Balances**

As Exhibit 7 shows, the MMI Fund decreased to \$49.8 billion in FY 2016 Q4. \$12.6 billion is held in the Financing account, and \$37.2 billion is held in the Capital Reserve account.

Exhibit 7. MMI Fund Balances by Quarter, FY 2010-FY 2016

Fiscal Year	Quarter	Capital Reserve Account <sup>a</sup> (\$ billions)	Financing Account <sup>b</sup> (\$ billions)	Total <sup>c</sup> (\$ billions)
1 ISCAI TEAI		11.4	21.2	32.6
	Oct-Dec			
2010	Jan-Mar	12.0	20.2	32.2
	Apr–Jun	3.5	29.6	33.1
	Jul-Sep	4.4	28.9	33.3
	Oct-Dec	6.3	26.4	32.7
2011	Jan-Mar	7.7	23.9	31.6
	Apr–Jun	2.8	28.9	31.7
	Jul-Sep	4.7	29.0	33.7
	Oct-Dec	5.7	27.6	33.3
2012	Jan-Mar	7.0	25.3	32.3
	Apr–Jun	9.8	21.9	31.6
	Jul-Sep	3.3	35.1	38.4
	Oct-Dec	7.1	30.0	37.1
2013	Jan-Mar	11.0	25.1	36.1
2013	Apr–Jun	15.8	17.3	33.1
	Jul-Sep	0	48.4	48.4
	Oct-Dec	2.6	44.5	47.1
2014	Jan-Mar	2.2	43.6	45.8
2014	Apr–Jun	4.9	40.4	45.3
	Jul-Sep	7.3	38.9	46.2
	Oct-Dec	10.4	35.8	46.2
2015	Jan-Mar	12.9	33.5	46.3
2015	Apr–Jun	12.0	34.5	46.5
	Jul-Sep	16.0	29.6	45.6
	Oct-Dec	18.2	27.3	45.5
2016	Jan-Mar	20.2	25.3	45.5
2010	Apr–Jun	34.4	16.6	51.0
	Jul-Sep	37.2	12.6	49.8

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

<sup>&</sup>lt;sup>a</sup> 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 the Financing account for the rebalancing required by annual budget reestimates.

<sup>&</sup>lt;sup>b</sup> This is a series of off-budget cash accounts used to manage insurance operation collections and disbursements.

<sup>&</sup>lt;sup>c</sup> Total is the sum of Capital Reserve and Financing account balances. It represents the sum of cash and investments at the Treasury that can be immediately liquidated into cash. It does not represent total assets of the MMI Fund.

#### **Cash Flows from Business Operations**

FY 2016 Q4 net cash flow was \$70 million compared to FY 2016 Q3 of \$929 million. HUD has been proactive in reducing average losses per claim through a more diversified asset disposition strategy that now includes the Distressed Asset Stabilization Program (DASP), promotion of third-party sales at foreclosure auctions, Claims Without Conveyance of Title (CWCOT), and expanded eligibility for pre-foreclosure (short) sales. Claim costs (as measured by loss rates) have decreased from a high of 67 percent in 2011 to around 50 percent over the last four quarters (Exhibit A-7).

Exhibit 8. Business Operations Cash Flows, FY 2016 Q1-FY 2016 Q4 (\$ millions)

	FY 2016 Q1	FY 2016 Q2	FY 2016 Q3	FY 2016 Q4	Past 4 Quarters
Collections					
Premiums	3,230	3,082	3,399	3,485	13,196
Property Sale Receipts	1,168	1,049	969	938	4,124
Note Sale Proceeds	110	404	276	490	1,280
Other	189	83	783	115	1,170
Total	4,697	4,618	5,427	5,028	19,770
Disbursements					
Claims <sup>a</sup>	(4,723)	(4,529)	(4,414)	(4,903)	(18,569)
Property Maintenance	(92)	(83)	(74)	(51)	(300)
Other	(3)	(8)	(10)	(4)	(25)
Total	(4,818)	(4,620)	(4,498)	(4,958)	(18,894)
Net Operations Cash Flow	-121	-2	929	70	876

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

<sup>&</sup>lt;sup>a</sup> Claim payments shown here include conveyance, pre-foreclosure sale, note sales, loss mitigation (home retention) actions, and all HECM claims (assignment and shortfall claims).

## **Early-Payment Delinquency Rates**

The Early-Payment Delinquency (EPD) rate for loans originated in FY 2016 Q2 is up 1 basis point from the previous quarter.

**Exhibit 9. Early Payment Delinquency Rates** 

Exhibit 9. Early Payment Delinquency Rates					
		Loan Type / Purpose (%)			
Fiscal Year	Origination Quarter	Purchase	Refinance	Alla	
	Oct-Dec	2.51	1.80	2.21	
2008	Jan–Mar	2.46	1.73	2.10	
2006	Apr–Jun	1.92	1.86	1.90	
	Jul-Sep	1.66	2.24	1.84	
	Oct-Dec	1.20	1.68	1.36	
0000	Jan–Mar	1.02	1.04	1.03	
2009	Apr–Jun	0.64	0.66	0.65	
	Jul-Sep	0.49	0.63	0.53	
	Oct-Dec	0.32	0.51	0.36	
	Jan-Mar	0.40	0.34	0.38	
2010	Apr–Jun	0.35	0.36	0.35	
	Jul-Sep	0.44	0.31	0.42	
	Oct-Dec	0.32	0.19	0.28	
2011	Jan-Mar	0.39	0.21	0.34	
2011	Apr–Jun	0.47	0.33	0.45	
	Jul-Sep	0.36	0.35	0.36	
	Oct-Dec	0.33	0.16	0.29	
2012	Jan-Mar	0.39	0.14	0.33	
2012	Apr–Jun	0.39	0.32	0.35	
	Jul-Sep	0.36	0.26	0.34	
	Oct-Dec	0.26	0.20	0.23	
2013	Jan-Mar	0.29	0.20	0.24	
2010	Apr–Jun	0.32	0.22	0.27	
	Jul-Sep	0.36	0.26	0.33	
	Oct-Dec	0.32	0.29	0.31	
2014	Jan-Mar	0.37	0.33	0.36	
	Apr–Jun	0.46	0.37	0.44	
	Jul-Sep	0.46	0.34	0.43	
	Oct-Dec	0.37	0.28	0.35	
2015	Jan-Mar	0.42	0.29	0.39	
	Apr–Jun	0.44	0.26	0.36	
	Jul-Sep	0.46	0.37	0.43	
2016	Oct-Dec	0.31	0.27	0.30	
	Jan-Mar	0.35	0.21	0.31	

<sup>&</sup>lt;sup>a</sup> Percent of loans 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 2016.

#### **Serious Delinquency Rates**

Serious delinquency rates (SDQ) fell to their lowest point since at least 2008 (Exhibit 10). Rates for those vintages most affected by the recent economic recession (2006–2008) continue to decline, as the number of loans that are new serious delinquencies is smaller than the number of serious delinquencies that cure or become current.

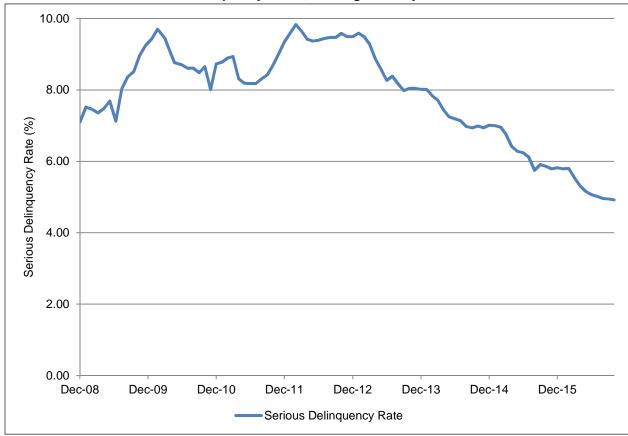
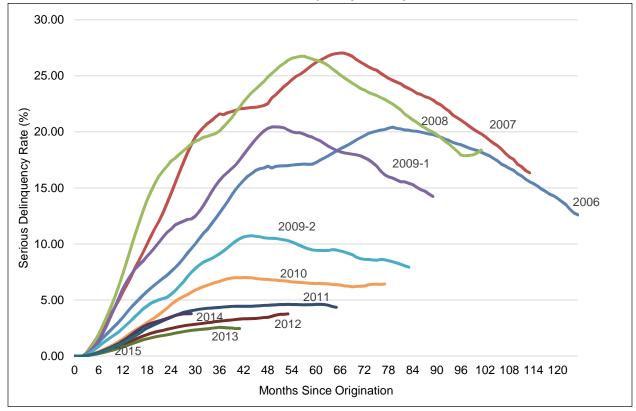


Exhibit 10. Serious Delinquency Rates, All Single-Family Forward Endorsements

Exhibit 11 follows the serious delinquency rates of recent vintages from their month of origination. Serious delinquency rates have declined slightly in the older vintages but risen in the more recent vintages. This is consistent with past behavior of delinquency rates, which tend to rise in the early months and then taper off as they season.



**Exhibit 11. Serious Delinquency Rate by Fiscal Year** 

NOTE: The FY 2009 cohort is separated into two parts, representing loan originations from October through March in 2009-1 and loan originations from April through September in 2009-2. SOURCE: U.S. Department of HUD/FHA, October 2016.

### **APPENDIX**

**Exhibit A-1. New Endorsement Counts** 

Fiscal Year	Home Purchase	Forward M Conventional Loan Refinance	FHA-to-FHA Refinance	All Forward Loans	Reverse Mortgages (HECM) <sup>b</sup>
2000	763,064	30,352	38,131	831,547	6,637
2001	730,106	43,802	188,644	962,552	7,789
2002	787,094	61,101	319,985	1,168,180	13,048
2002	602,452	59,499	556,983	1,218,934	18,084
2003	540,314	53,939	298,170	892,423	37,791
2004	328,542	31,958	117,853	478,353	43,082
2005	293,257	58,226	48,423	399,906	76,280
2007	261,166	104,578	36,601	402,345	107,367
2007	591,326	349,123	91,133	1,031,582	112,013
2008	995,102	468,768	367,450	1,831,320	112,013
2009	1,109,163	305,296	252,449	1,666,908	78,758
2010	777,101	194,811	224,760	1,196,672	73,093
2011	777,101	129,185	321,614	1,184,498	54,677
2012	702,415	91,500	550,929	1,344,844	59,918
2013	594,998	55,352	136,002	786,352	51,616
2014	753,387	80,014	282,821	1,116,222	57,990
2016	879,428	107,446	271,044	1,257,918	48,868
Fiscal Year and 0		107,440	211,044	1,237,910	+0,000
2012 Q4	197,970	22,678	113,786	334,434	11,650
2013 Q1	177,852	22,754	152,520	353,126	12,079
2013 Q2	157,439	25,428	167,487	350,354	15,830
2013 Q3	181,297	24,176	150,906	356,379	16,371
2013 Q4	185,827	19,142	80,016	284,985	15,638
2014 Q1	152,965	14,610	40,912	208,487	13,094
2014 Q2	119,833	13,456	31,202	164,491	14,827
2014 Q3	148,016	13,573	32,042	193,631	12,590
2014 Q4	174,184	13,713	31,846	219,743	11,105
2015 Q1	154,807	15,827	30,965	201,599	14,199
2015 Q2	132,528	15,429	52,180	200,137	14,288
2015 Q3	198,802	21,485	114,362	334,649	14,058
2015 Q4	267,250	27,273	85,314	379,837	15,445
2016 Q1	210,550	27,162	63,469	301,181	12,577
2016 Q2	187,068	26,111	64,247	277,426	13,002
2016 Q3	225,135	26,057	65,899	317,091	11,643
2016 Q4	256,675	28,116	77,429	362,220	11,646

<sup>&</sup>lt;sup>a</sup> Starting in FY 2008 Q4, these counts include 203(k) purchase and rehabilitation loans and 234(c) condominium loans. <sup>b</sup> 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.

**Exhibit A-2. Endorsement Volumes** 

		Volumes (\$ millions)					
		Forward M			_		
	Home Purchase	Conventional Loan Refinance	FHA-to-FHA Refinance	All Forward Loans	Reverse Mortgages (HECM) <sup>b</sup>		
Fiscal Year	· · · · · · · · · · · · · · · · · · ·						
2000	79,397	3,181	3,697	86,276	827		
2001	79,709	4,947	22,894	107,550	1,095		
2002	91,025	7,404	37,713	136,142	1,975		
2003	73,026	7,602	66,682	147,310	3,000		
2004	66,835	6,998	33,787	107,621	6,886		
2005	40,196	4,258	13,521	57,975	8,877		
2006	37,102	8,521	6,110	51,733	17,973		
2007	35,003	16,095	5,419	56,516	24,622		
2008	95,374	61,525	14,907	171,806	24,240		
2009	171,672	86,984	71,729	330,385	30,172		
2010	191,602	56,431	49,468	297,502	20,974		
2011	134,357	36,846	46,440	217,642	18,208		
2012	124,454	23,473	65,344	213,271	13,113		
2013	124,934	16,932	98,249	240,115	14,680		
2014	105,721	9,410	20,085	135,216	13,520		
2015	140,262	14,428	58,428	213,118	16,130		
2016	171,612	20,546	53,213	245,372	14,661		
Fiscal Year and 0	Quarter	ı					
2012 Q4	34,515	4,109	22,241	60,865	2,733		
2013 Q1	30,994	4,135	28,596	63,725	2,819		
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	35,826	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	37,194	3,916		
2015 Q3	36,989	4,012	25,062	66,063	3,871		
2015 Q4	51,702	5,154	17,830	74,686	4,540		
2016 Q1	40,563	5,037	12,479	58,080	3,625		
2016 Q2	36,486	5,035	12,009	53,529	3,906		
2016 Q3	43,525	4,974	13,037	61,537	3,527		
2016 Q4	51,038	5,499	15,689	72,226	3,603		

<sup>&</sup>lt;sup>a</sup> 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 2016.

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

		(1)					
				Credit Scores <sup>a</sup>			
Fiscal Year	Quarter	500–619	620–639	640–679	680–719	720–850	
	Oct-Dec	24.9	12.9	24.6	17.2	20.5	
2009	Jan-Mar	20.0	12.0	24.9	18.9	24.3	
2009	Apr–Jun	11.2	12.3	25.8	21.2	29.6	
	Jul-Sep	7.0	12.0	25.7	22.0	33.3	
	Oct-Dec	5.7	12.1	26.3	22.4	33.5	
2010	Jan-Mar	5.1	11.7	26.7	22.7	33.8	
2010	Apr–Jun	4.2	11.7	26.7	22.6	34.9	
	Jul-Sep	4.5	11.7	26.5	22.6	34.7	
	Oct-Dec	4.0	9.8	26.1	23.1	36.9	
2011	Jan-Mar	3.3	6.4	28.5	24.1	37.7	
2011	Apr–Jun	3.5	6.9	30.6	23.8	35.3	
	Jul-Sep	4.3	8.1	31.0	23.7	33.0	
	Oct-Dec	4.1	8.0	31.2	23.8	32.9	
2012	Jan-Mar	3.6	7.7	31.0	23.8	33.9	
2012	Apr–Jun	3.2	7.2	32.3	24.2	33.2	
	Jul-Sep	2.9	6.8	34.2	25.3	30.8	
	Oct-Dec	2.7	6.4	35.1	26.0	29.8	
2013	Jan-Mar	2.4	5.9	35.9	26.6	29.2	
	Apr–Jun	1.9	5.7	38.2	27.4	26.8	
	Jul-Sep	2.0	6.2	40.5	27.7	23.6	
	Oct-Dec	2.6	7.7	42.4	27.2	20.1	
2014	Jan-Mar	3.2	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	41.4	25.9	17.0	
	Oct-Dec	5.9	12.3	40.4	25.4	16.0	
2015	Jan-Mar	5.7	12.4	40.0	25.7	16.2	
	Apr–Jun	5.2	11.6	38.1	26.5	18.6	
	Jul-Sep	5.4	11.4	36.9	26.6	19.7	
	Oct-Dec	5.9	11.9	36.7	26.1	19.5	
2016	Jan-Mar	6.1	12.0	36.5	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	

NOTES: Shares in each row may not sum to 100% due to rounding; excludes streamline refinance loans.

<sup>a</sup> 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. They are grouped here according to the "decision" score used for loan underwriting. That 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.

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

		Loan Purpose					
			Conventional	FHA-to-FHA			
Fiscal Year	Quarter	Home Purchase	Loan Refinance	Refinancea	All		
	Oct-Dec	630	614	625	624		
2008	Jan-Mar	633	619	631	627		
	Apr-Jun Jul-Sep	653 668	637 644	641 646	647 660		
	Oct-Dec	672	651	649	665		
2009	Jan-Mar	677	669	662	674		
2003	Apr–Jun	687	684	675	686		
	Jul-Sep	695	687	677	693		
	Oct-Dec	696	690	679	694		
2010	Jan-Mar	696	695	685	695		
2010	Apr–Jun	697	699	688	697		
	Jul-Sep	696	700	693	697		
	Oct-Dec	699	704	700	701		
2011	Jan-Mar	701	707	703	703		
2011	Apr–Jun	699	702	699	700		
	Jul-Sep	697	694	697	697		
	Oct-Dec	695	702	705	697		
2012	Jan-Mar	695	707	708	698		
2012	Apr–Jun	695	711	709	698		
	Jul-Sep	695	698	704	696		
	Oct-Dec	695	696	703	695		
2013	Jan-Mar	694	697	703	695		
2013	Apr–Jun	692	694	699	693		
	Jul-Sep	690	685	690	689		
	Oct-Dec	686	677	680	685		
2014	Jan-Mar	684	674	675	682		
2011	Apr–Jun	681	672	673	680		
	Jul-Sep	680	671	671	679		
	Oct-Dec	678	669	669	676		
2015	Jan-Mar	678	673	675	677		
	Apr–Jun	681	678	679	680		
	Jul-Sep	682	677	674	682		
	Oct-Dec	682	676	672	681		
2016	Jan-Mar Apr-Jun	681 679	676 677	672 673	680 679		
	Jul-Sep	680	677	672	679		

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. They are grouped here according to the "decision" score used for loan underwriting. That 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.

<sup>&</sup>lt;sup>a</sup> These include only fully-underwritten loans and exclude streamline refinancing.

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

		LTV Ratio <sup>a</sup> (%)				
Fiscal Year	Quarter	Up to 80	81–90	91–95	96-98 <sup>b</sup>	
	Oct-Dec	6.28	11.25	21.38	61.09	
2009	Jan-Mar	6.88	13.46	23.42	56.23	
2009	Apr–Jun	6.41	14.38	17.73	61.48	
	Jul-Sep	6.01	15.23	11.54	67.22	
	Oct-Dec	5.82	14.83	10.11	69.24	
2010	Jan-Mar	6.86	16.89	10.89	65.37	
2010	Apr–Jun	5.73	12.94	9.53	71.81	
	Jul-Sep	5.97	13.88	9.95	70.20	
	Oct-Dec	6.21	15.87	10.95	66.97	
2011	Jan-Mar	7.58	16.88	10.40	65.14	
2011	Apr–Jun	6.21	13.08	9.00	71.70	
	Jul-Sep	5.21	11.03	8.80	74.97	
	Oct-Dec	5.85	12.02	9.33	72.80	
2012	Jan-Mar	7.52	12.50	9.27	70.72	
2012	Apr–Jun	7.67	11.34	8.96	72.04	
	Jul-Sep	5.08	9.31	9.59	76.03	
	Oct-Dec	5.17	9.99	10.14	74.70	
2013	Jan-Mar	5.97	11.52	10.78	71.73	
2013	Apr–Jun	5.63	10.27	9.75	74.35	
	Jul-Sep	5.26	9.71	8.94	76.10	
	Oct-Dec	5.58	9.95	9.00	75.47	
2014	Jan-Mar	6.08	10.91	9.41	73.59	
2014	Apr–Jun	5.63	9.61	9.04	75.72	
	Jul-Sep	5.46	9.46	9.14	75.95	
	Oct-Dec	6.70	10.79	8.93	73.57	
2015	Jan-Mar	7.10	11.65	8.96	72.28	
2010	Apr–Jun	6.14	11.59	8.76	73.52	
	Jul-Sep	6.44	11.13	8.35	74.08	
	Oct-Dec	7.53	12.56	8.24	71.67	
2016	Jan-Mar	8.10	13.24	8.22	70.44	
-3.0	Apr–Jun	6.80	11.68	7.67	73.85	
	Jul-Sep	6.83	11.95	7.76	73.47	

NOTES: Shares in each row sum to 100%; excludes streamline refinance loans.

a In accordance with statutory requirements for determining eligibility of loans for FHA insurance, HUD measures LTV without including any financed mortgage insurance premium in the loan balance. SOURCE: U.S. Department of HUD/FHA, October 2016.

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

	<u></u>	Loan Purpose							
Fiscal Year	Quarter	Home Purchase	Conventional Loan Refinance	FHA-to-FHA Refinance	All				
2009	Oct-Dec	96.0	89.1	88.8	93.7				
	Jan-Mar	95.9	89.4	89.4	93.2				
	Apr–Jun	95.7	88.6	87.9	93.1				
	Jul-Sep	95.6	86.8	85.8	93.2				
2010	Oct-Dec	95.6	86.1	85.2	93.3				
	Jan-Mar	95.5	86.2	87.1	92.9				
	Apr–Jun	95.6	85.4	86.9	93.6				
	Jul-Sep	95.6	86.0	88.0	93.5				
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				
2013	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	83.4	93.7				
2016	Oct-Dec	95.7	79.4	82.6	93.2				
	Jan-Mar	95.7	78.9	82.1	92.9				
	Apr–Jun	95.8	79.3	82.3	93.4				
	Jul-Sep	95.7	79.1	82.0	93.4				

NOTE: In accordance with statutory requirements for determining eligibility of loans for FHA insurance, HUD measures LTV without including any mortgage insurance premium financed in the loan balance.

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

		Loss Rates (% Unpaid Principal Balance)		Disposition Counts			REO Alternatives	
Fiscal	Quarter	DEO <sub>2</sub>	REO	Overell	REO	REO	Total	Share of Dispositions
Year	Quarter	REO <sup>a</sup>	Alternatives <sup>b</sup>	Overall		Alternatives	Total	(%)
2010	Oct-Dec	67.1	42.9	63.5	20,166	3,522	23,688	14.9
	Jan-Mar	65.1	42.4	60.7	25,453	6,062	31,515	19.2
	Apr–Jun	66.4	45.5	62.5	22,716	5,310	28,026	18.9
	Jul-Sep	67.3	46.8	61.8	14,929	5,451	20,380	26.7
2011	Oct-Dec	71.0	47.6	64.7	16,540	6,132	22,672	27.0
	Jan-Mar	71.1	47.2	67.0	37,381	7,736	45,117	17.1
	Apr–Jun	72.3	47.8	67.7	32,664	7,592	40,256	18.9
	Jul-Sep	72.4	48.4	67.0	27,034	7,978	35,012	22.8
2012	Oct-Dec	72.1	47.0	63.2	25,336	9,389	34,725	27.0
	Jan-Mar	70.9	47.8	62.7	22,009	8,022	30,031	26.7
	Apr–Jun	69.2	48.7	61.3	23,906	10,138	34,044	29.8
	Jul-Sep	67.8	48.2	60.6	27,305	11,164	38,469	29.0
2013	Oct-Dec	66.1	55.4	61.6	25,246	12,966	38,212	33.9
	Jan-Mar	63.9	49.6	58.4	26,164	11,361	37,525	30.3
	Apr–Jun	60.3	54.1	57.0	28,094	22,934	51,028	44.9
	Jul-Sep	59.3	51.5	55.0	27,735	27,767	55,502	50.0
2014	Oct-Dec	61.0	47.6	54.0	23,649	19,680	43,329	45.4
	Jan-Mar	62.6	50.8	55.0	19,523	24,730	44,253	55.9
	Apr–Jun	58.8	45.3	50.8	15,614	17,043	32,657	52.2
	Jul-Sep	57.2	46.8	49.6	12,598	25,184	37,782	66.7
2015	Oct-Dec	59.2	45.1	50.0	12,720	18,722	31,442	59.5
	Jan-Mar	60.4	45.4	53.3	13,512	9,321	22,833	40.8
	Apr–Jun	57.1	43.0	51.1	15,451	8,927	24,378	36.6
	Jul-Sep	56.7	47.8	51.8	16,346	14,448	30,794	46.9
2016	Oct-Dec	57.9	49.0	53.2	15,972	13,875	29,847	46.5
	Jan-Mar	58.7	47.7	52.9	14,100	12,121	26,221	46.2
	Apr–Jun	53.0	49.7	51.1	12,317	11,762	24,079	48.8
	Jul-Sep <sup>c</sup>	49.4	55.1	53.1	7,122	9,833	16,955	58.0

NOTE: Includes all single-family forward loans.

<sup>&</sup>lt;sup>a</sup> Real Estate Owned (REO) refers to properties that HUD has assumed ownership of through the conveyance of title.

<sup>&</sup>lt;sup>b</sup> 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 preforeclosure 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 loans 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).

<sup>&</sup>lt;sup>c</sup> Data through August 2016.