HOUSING FINANCE POLICY CENTER

HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

May 2017

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ABOUT THE CHARTBOOK

The Housing Finance Policy Center's (HFPC) mission is to produce analyses and ideas that promote sound public policy, efficient markets, and access to economic opportunity in the area of housing finance. *At A Glance*, a monthly chartbook and data source for policymakers, academics, journalists, and others interested in the government's role in mortgage markets, is at the heart of this mission.

We welcome feedback from our readers on how we can make *At A Glance* a more useful publication. Please email any comments or questions to ataglance@urban.org.

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INTRODUCTION

The Rising First-time Homebuyer Share

The first-time homebuyer share has been creeping up slowly since 2012 (page 17). In February 2017, the first-time homebuyer share of GSE purchase loans stood at 47.1 percent, up from 38 percent in 2012. The FHA's first-time homebuyer share has always hovered around 80 percent but is also up from 78 percent in 2012 to 82 percent in February 2017. The combined FHA and GSE first-time homebuyer share is up from 57 to 60 percent over the same period although it is still below the 63 percent peak in 2009 when the temporary first-time homebuyer tax credit was available.

Increases in the first-time homebuyer share are to be expected in the face of an improving economy, falling unemployment, and rising household formation and incomes. According to the Census Bureau, a total of 854,000 new-owner households were formed in Q1 2017, more than double the 365,000 renter households created in the same period. Although this was first time in over a decade that the number of new-owner households surpassed new-renter households, household formation data have been quite volatile in recent years, suggesting that the latest numbers should be taken with caution.

The increase in the first-time homebuyer share has occurred alongside an increase in new home construction and a decrease in the size of the average home. Per the Census Bureau, cumulative single-family housing starts totaled 260,000 in the first four months of 2017, in comparison to 243,000 and 209,000 during the first four months of 2016 and 2015 respectively. But more importantly, the median square footage of newly built homes continued its downward trend and declined to 2,628 in Q1 of 2017 from 2,658 in Q1 2016 and 2,736 in Q1 2015. These data suggest that homebuilders are not only building more homes, but are also more inclined to build smaller, less expensive homes – which are more likely than larger homes to meet the limited budgets of first-time homebuyers.

Interestingly, increased first-time homebuying share has persisted even as house prices have risen and affordability has worsened – constraints which can create financial burdens for first-time homebuyers. First-time homebuyers typically are also less creditworthy than repeat buyers (page 17 bottom table) and therefore much more likely to be adversely affected by the overly tight credit environment we are witnessing currently (see page 13 for Housing Credit Availability Index and page 14 for trends in credit scores). However, with the end of the refinance boom lenders can be expected to marginally open the credit box to maintain volumes and profitability.

First-time homebuyers depend overwhelmingly on low down payment financing through the FHA. However, for a variety of reasons, credit availability through the FHA channel has worsened in recent years, thus keeping many prospective homebuyers from being able to obtain a mortgage. Recent trends in household formation and construction activity are no doubt very positive developments, especially if sustained into the future. But if we are to bring more first-time homebuyers into the market, credit availability will need to do its part as well.

INSIDE THIS ISSUE

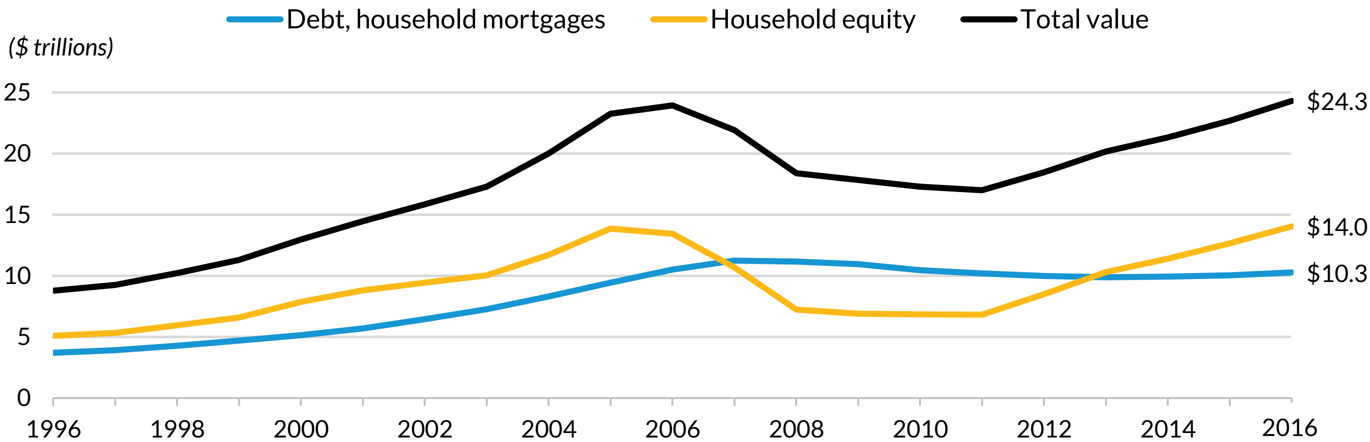
- The originator profitability measure fell to its lowest level since 2016 (Page 13).
- The first-time homebuyer share of GSE purchase loans reached the highest level in recent history in February 2017 (Page 17).
- Total serious delinquencies and FHA/VA delinquencies resumed their decline in Q1 2017, after last quarter's seasonal uptick (Pages 19 and 25).
- Fannie's average g-fees on new acquisitions edged up in Q1 2017 while Freddie remained flat (Page 21).
- Ginnie Mae's share of monthly agency gross issuance reached its highest level since December 2015 (Page 31).
- FHA, VA and PMI's mortgage insurance activities all declined while FHA gained market share over PMI in Q1 2017 (Page 32).

OVERVIEW

MARKET SIZE OVERVIEW

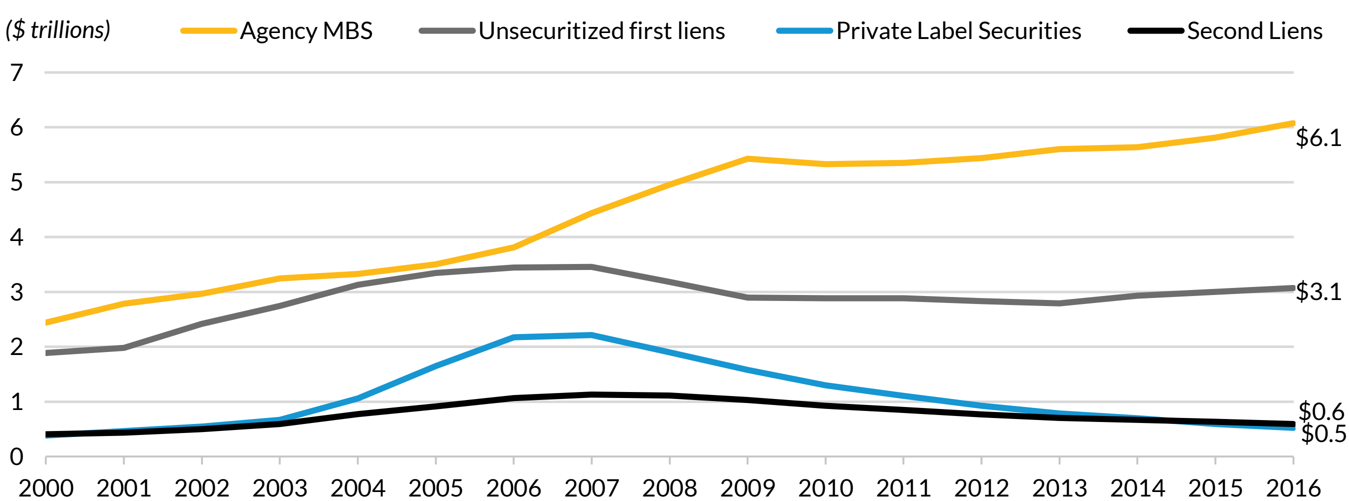
The Federal Reserve's Flow of Funds report has consistently indicated an increasing total value of the housing market driven by growing household equity since 2012, and 2016 was no different. While total debt and mortgages was stable at $10.3 trillion, household equity reached a new high of $14.0 trillion, bringing the total value of the housing market to $24.3 trillion, surpassing the pre-crisis peak of $23.9 trillion in 2006. Agency MBS make up 59.2 percent of the total mortgage market, private-label securities make up 5.1 percent, and unsecuritized first liens at the GSEs, commercial banks, savings institutions, and credit unions make up 29.9 percent. Second liens comprise the remaining 5.8 percent of the total.

Value of the US Housing Market



Sources: Federal Reserve Flow of Funds and Urban Institute. *Last updated March 2017.*

Size of the US Residential Mortgage Market



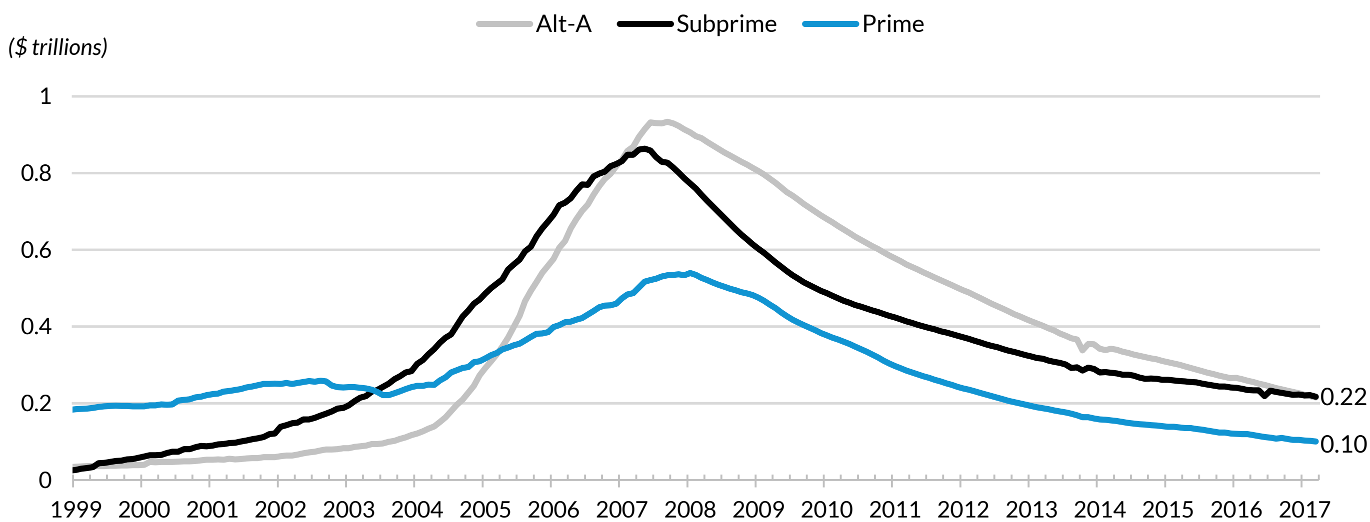
Sources: Federal Reserve Flow of Funds, Inside Mortgage Finance, Fannie Mae, Freddie Mac, eMBS and Urban Institute. *Last updated March 2017.*

OVERVIEW

MARKET SIZE OVERVIEW

As of March 2017, debt in the private-label securitization market totaled $542 billion and was split among prime (18.8 percent), Alt-A (40.4 percent), and subprime (40.8 percent) loans. In April 2017, outstanding securities in the agency market totaled $6.17 trillion and were 44.2 percent Fannie Mae, 27.5 percent Freddie Mac, and 28.3 percent Ginnie Mae. Ginnie Mae has had more outstanding securities than Freddie since May 2016.

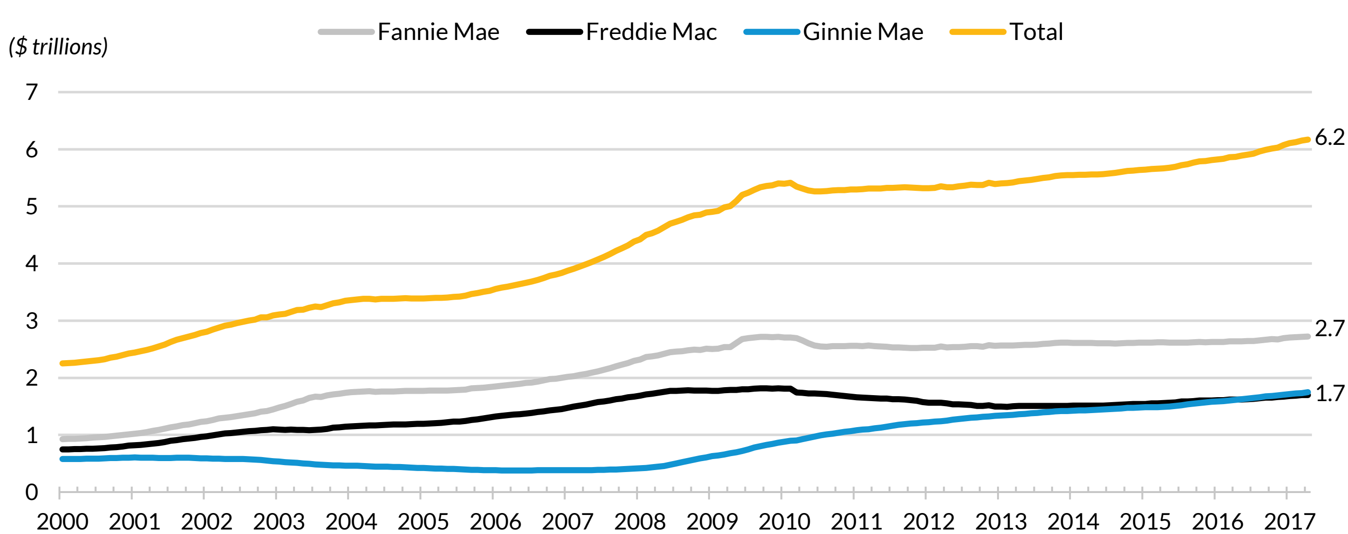
Private-Label Securities by Product Type



Sources: CoreLogic and Urban Institute.

March 2017

Agency Mortgage-Backed Securities



April 2017

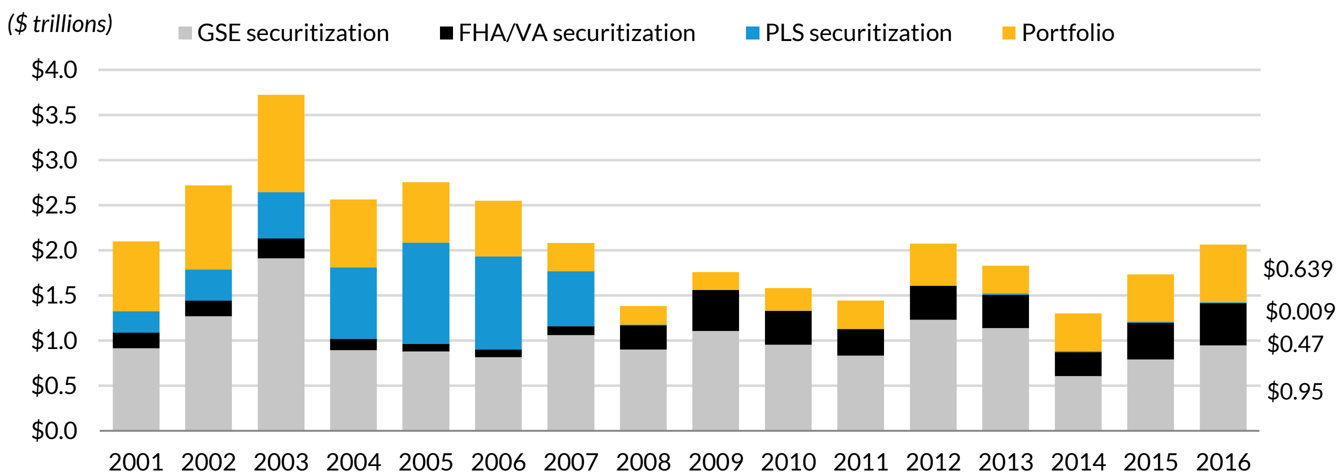
Sources: eMBS and Urban Institute.

OVERVIEW

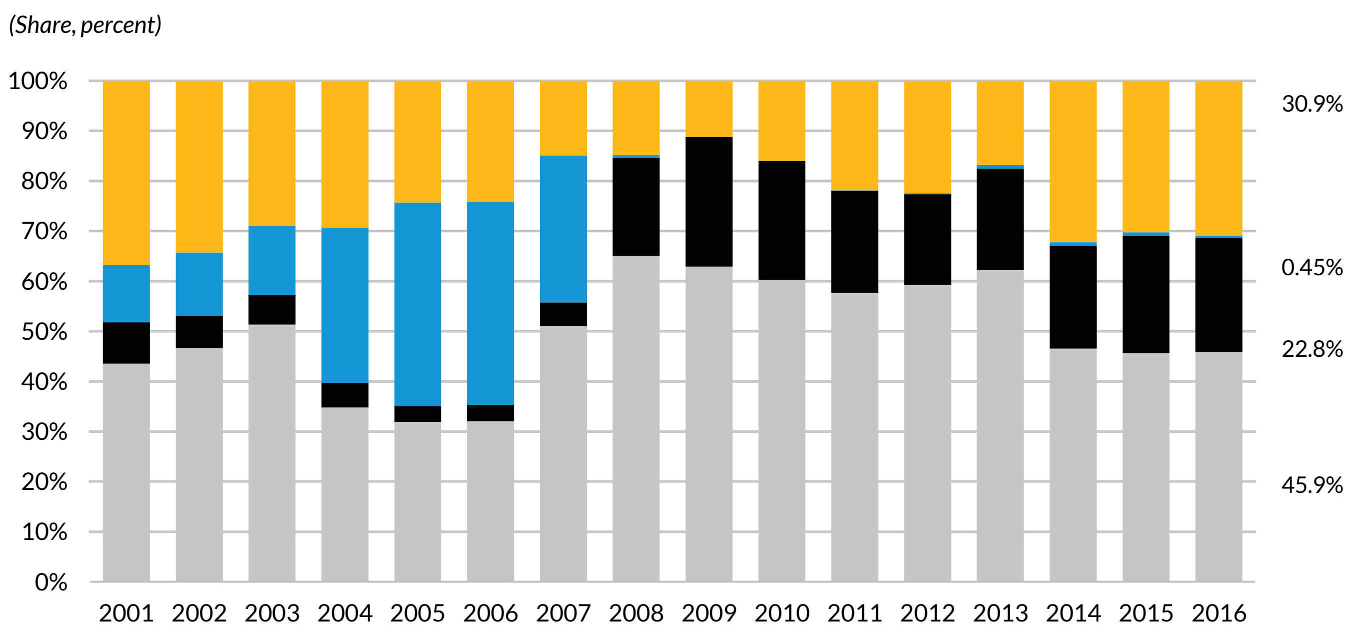
ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

First lien originations in 2016 totaled approximately $2.1 trillion, the most robust origination year since 2012. The share of portfolio originations was 30.9 percent, up from 30.2 percent in 2015. The GSE share went up to 45.9 percent, from 45.7 percent for the same period in 2015. The FHA/VA share was slightly down: 22.8 percent in 2016 versus 23.3 percent in 2015. Origination of private-label securities was well under 1 percent in both years.



Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2017.*

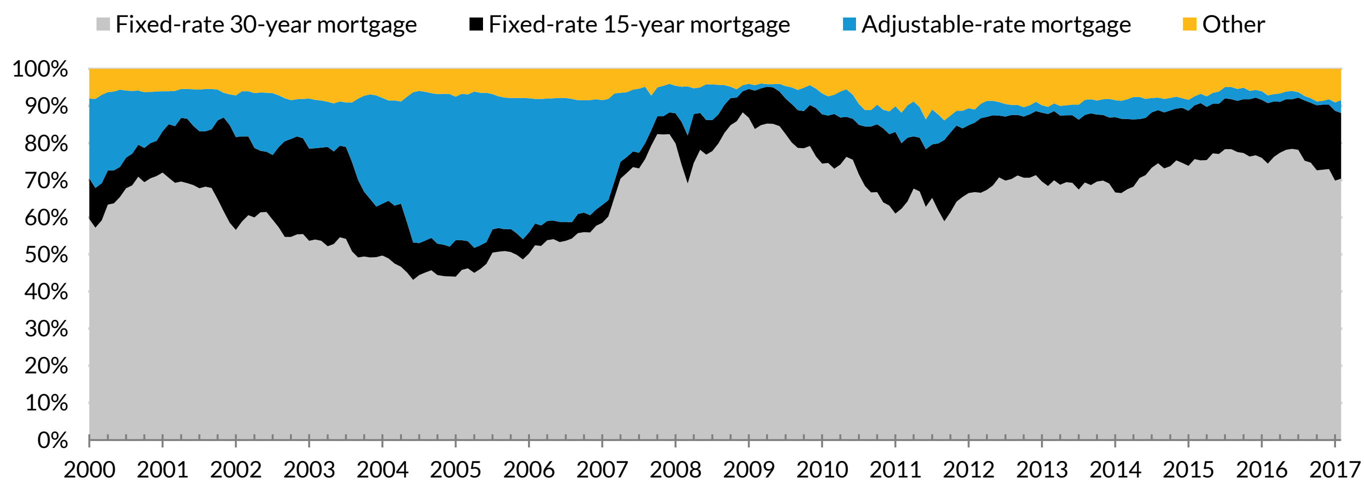


Sources: Inside Mortgage Finance and Urban Institute. *Last updated February 2017.*

MORTGAGE ORIGINATION PRODUCT TYPE

Adjustable-rate mortgages (ARMs) accounted for as much as 42 percent of all new originations during the peak of the 2005 housing bubble (top chart). The ARMs fell to an historic low of 1 percent in 2009, and then slowly grew to a high of 6 percent in April 2014. Since then, ARMs began to decline again to 3.5 percent in February 2017. The 15-year fixed-rate mortgage (FRM), predominantly a refinance product, accounted for 17.7 percent of new originations. If we exclude refinances (bottom chart), the share of 30-year FRMs in February 2017 stood at 89.6 percent, 15-year FRMs at 6.1 percent, and ARMs at 2.9 percent.

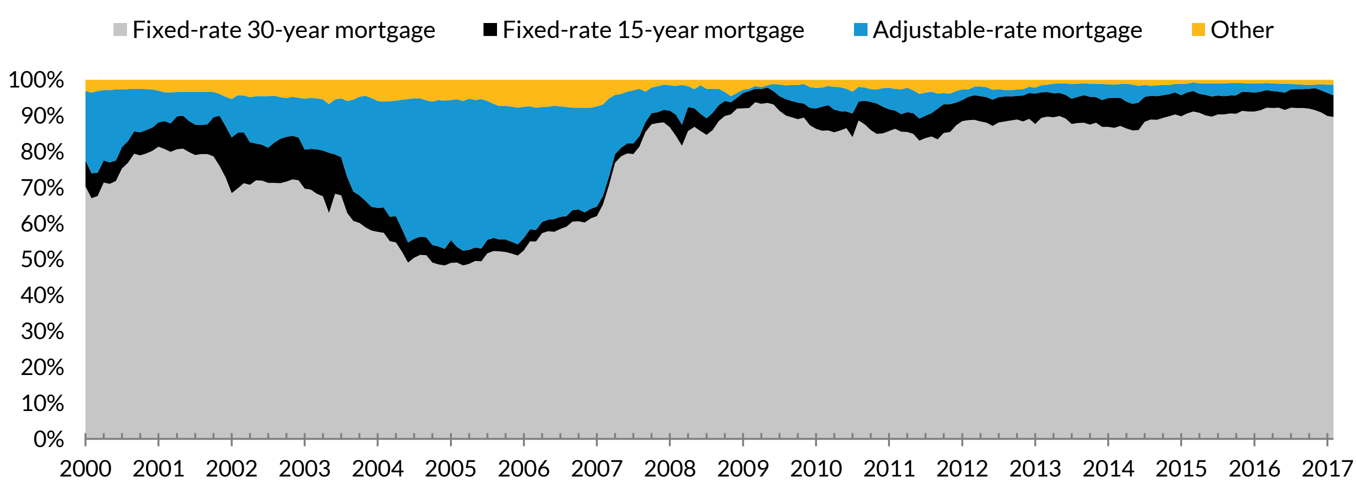
All Originations



Sources: Corelogic, eMBS, HMDA, SIFMA and Urban Institute.

February 2017

Purchase Loans Only



Sources: Corelogic, eMBS, HMDA, SIFMA and Urban Institute.

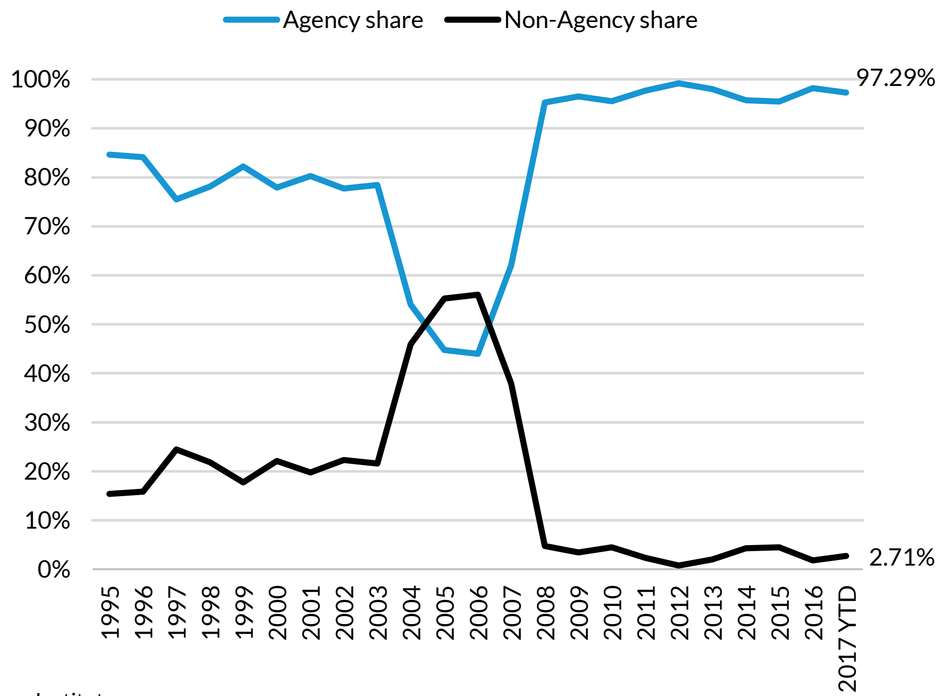
February 2017

OVERVIEW

SECURITIZATION VOLUME AND COMPOSITION

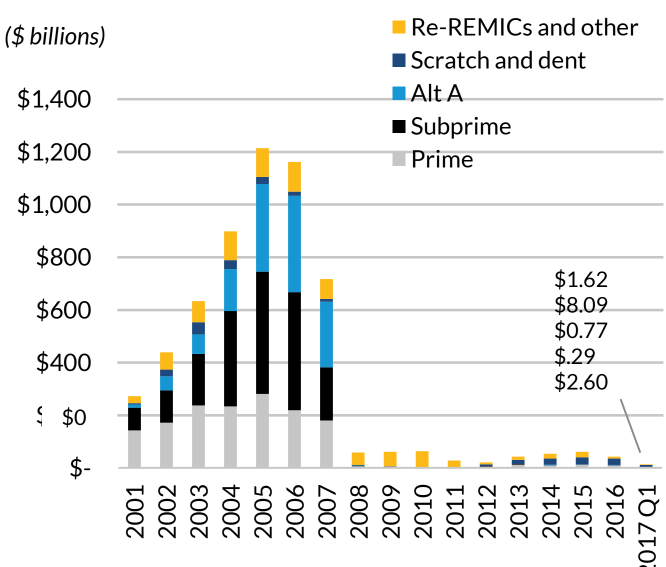
Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations in the first four months of 2017 was 2.7 percent, compared to 1.8 percent in 2016 and 4.5 percent in 2015. The non-agency securitization volume totaled $13.38 billion in Q1 2017, a 67.1 percent increase over the previous quarter. Much of the volume was in non-performing and re-performing (scratch and dent) deals. The volume of prime securitizations in Q1 2017 totaled $2.60 billion, higher than the preceding quarter ($1.57 billion) but lower than Q1 2016 ($2.92 billion). Non-agency securitizations continue to be tiny compared to pre-crisis levels.



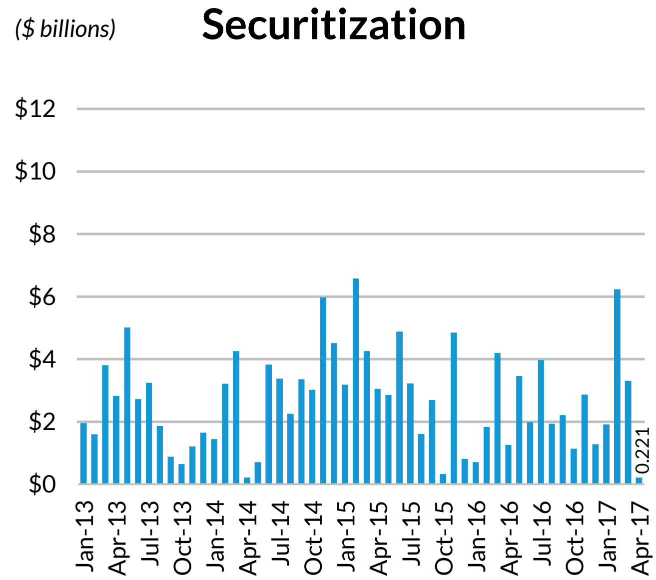
Sources: Inside Mortgage Finance and Urban Institute.
Note: Based on data from April 2017.

Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.

Monthly Non-Agency Securitization

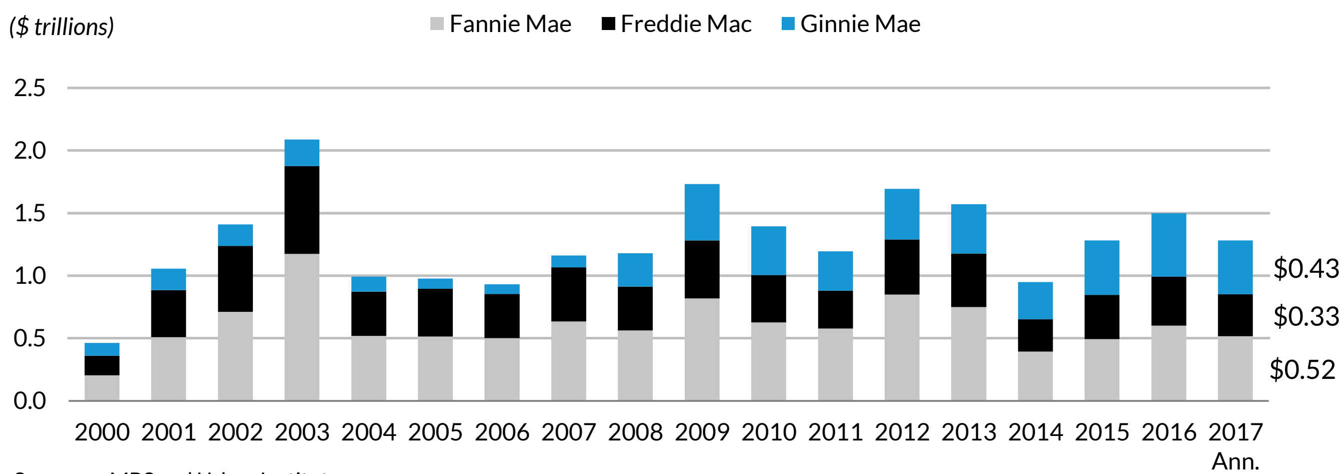


Sources: Inside Mortgage Finance and Urban Institute.
Note: Monthly figures equal total non-agency MBS issuance minus Re-REMIC issuance.

AGENCY ACTIVITY: VOLUMES AND PURCHASE/ REFI COMPOSITION

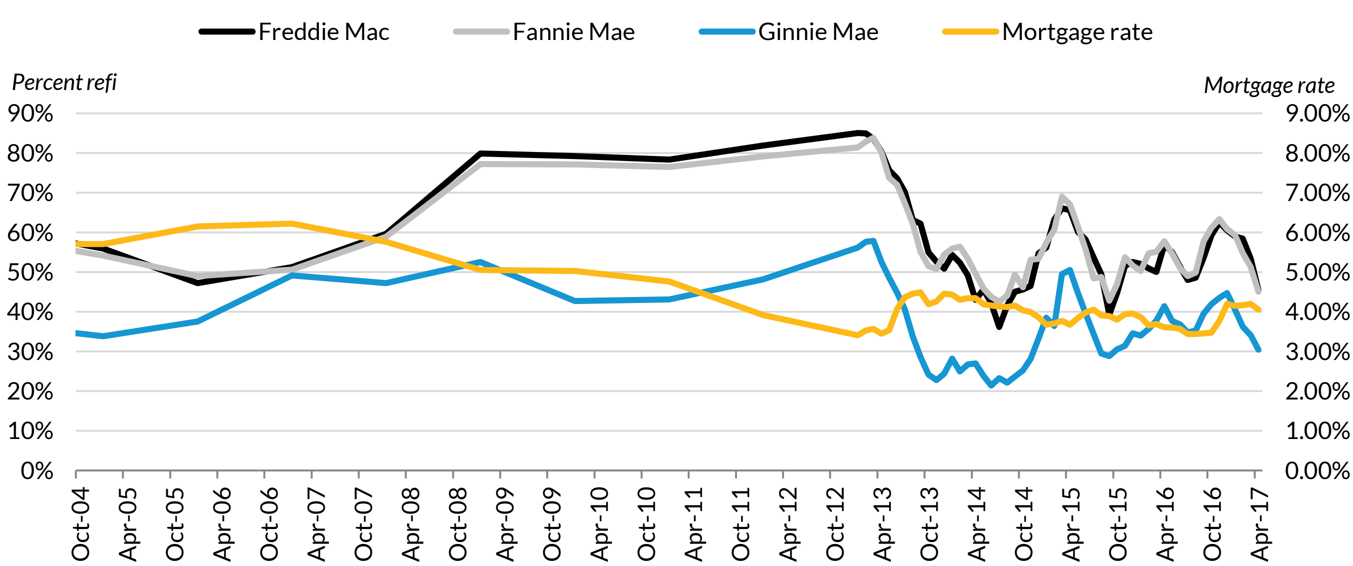
Agency issuance totaled $426.9 billion in the first four months of 2017, up from $384.8 billion for the same period a year ago. On an annualized basis, however, production is lighter than in 2016. In April 2017, refinances continued to decline to 45, 45 and 30 percent of Fannie Mae, Freddie Mac and Ginnie Mae's businesses, respectively, because mortgage rates have remained elevated since the election.

Agency Gross Issuance



Sources: eMBS and Urban Institute.
Note: Annualized figure based on data from April 2017.

Percent Refi at Issuance



Sources: eMBS and Urban Institute.
Note: Based on at-issuance balance. Figure based on data from April 2017

STATE OF THE MARKET

MORTGAGE ORIGINATION PROJECTIONS

Origination volume for calendar year 2016 was close to $2.0 trillion. In 2017, Fannie Mae, Freddie Mac and MBA expect origination volume to be in the $1.5-$1.6 trillion range, owing to a sharp decline in refinance activity due to rising interest rates. In 2017, the share of refinances is expected to be in the 27-32 percent range, representing a drop from the 48 percent refi share in 2016. Fannie, Freddie, and MBA all forecast 2017 housing starts to total 1.25 to 1.27 million units, an increase from 2016. Home sales forecasts for 2017 range from 5.90-6.41 million, with Freddie predicting a small drop from 2016 levels, while Fannie and MBA are expecting home sales to rise from 2016 levels.

Total Originations and Refinance Shares

Period	Originations ($ billions)			Refi Share (%)		
	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	FNMA estimate	FHLMC estimate	MBA estimate
2017 Q1	361	335	361	44	39	41
2017 Q2	454	443	463	32	27	32
2017 Q3	414	432	424	26	24	26
2017 Q4	362	335	348	28	21	31
2018 Q1	310	285	345	32	26	30
2018 Q2	424	420	445	23	18	24
2018 Q3	425	430	443	22	17	23
2018 Q4	379	365	355	25	21	28
FY 2014	1301	1350	1261	40	39	40
FY 2015	1730	1750	1679	47	45	46
FY 2016	2051	2125	1891	48	48	48
FY 2017	1590	1545	1596	32	27	32
FY 2018	1538	1500	1588	25	20	26

Sources: Fannie Mae, Freddie Mac, Mortgage Bankers Association and Urban Institute.
Note: Shaded boxes indicate forecasted figures. All figures are estimates for total single-family market. Column labels indicate source of estimate. Regarding interest rates, the yearly averages for 2014, 2015,and 2016 were 3.6%, 3.7%, and 3.6%. For 2017, the respective projections for Fannie, Freddie, and MBA are 4.1%, 4.4%, and 4.3%.

Housing Starts and Homes Sales

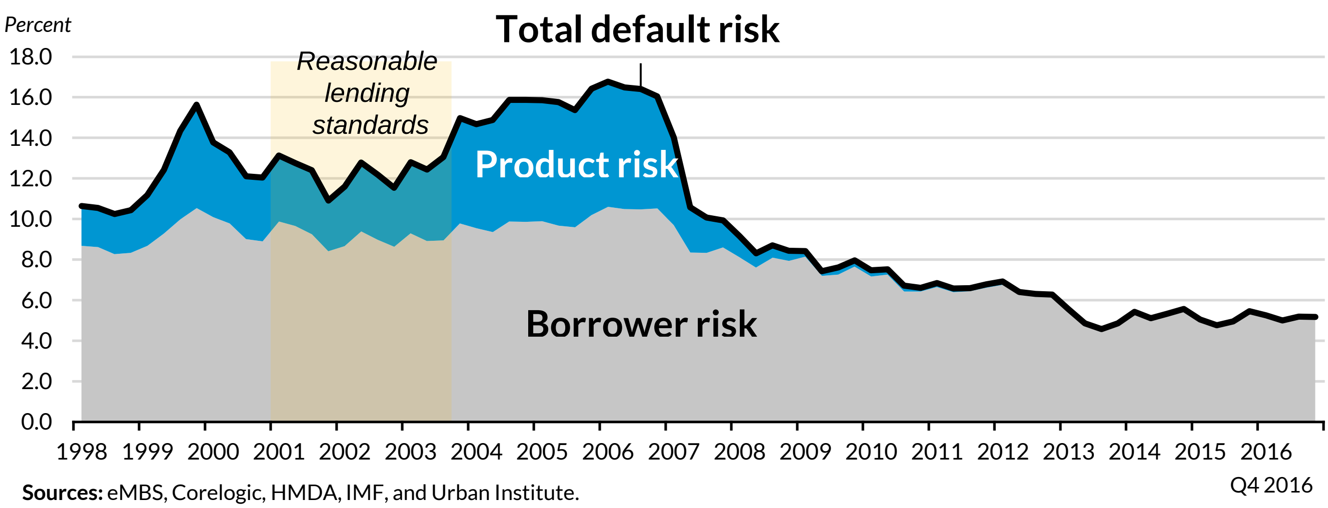
Year	Housing Starts, thousands			Home Sales. thousands				
	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Existing, MBA estimate	New, MBA Estimate
FY 2014	1003	1000	1001	5377	5380	5360	4920	440
FY 2015	1112	1110	1108	5751	5750	5740	5237	503
FY 2016	1174	1170	1176	6011	6010	6000	5440	560
FY 2017	1250	1260	1273	6216	5900	6410	5779	631
FY 2018	1333	1360	1358	6349	6020	6714	6020	694

Sources: Mortgage Bankers Association, Fannie Mae, Freddie Mac and Urban Institute.
Note: Shaded boxes indicate forecasted figures. All figures are estimates for total single-family market; column labels indicate source of estimate.

CREDIT AVAILABILITY AND ORIGINATOR PROFITABILITY

Housing Credit Availability Index (HCAI)

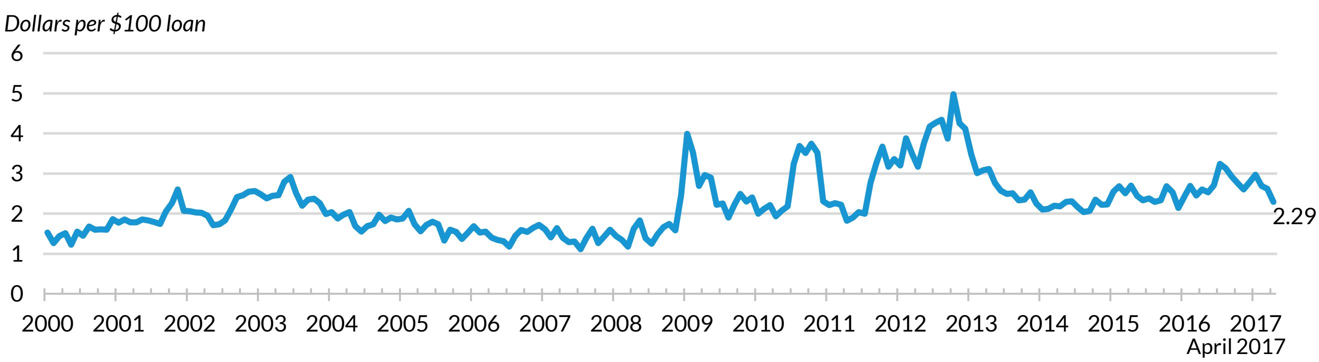
HFPC's Housing Credit Availability Index (HCAI) assesses lenders' tolerance for both borrower risk and product risk, calculating the share of owner-occupied purchase loans that are likely to default. The index shows that credit availability remained flat at 5.2 percent in the fourth quarter of 2016 (Q4 2016). The measure is less than half of the 2001-2003 standard of 12.5 percent. The HCAI is likely to increase with the post-election spike in interest rates, as lenders may expand the credit box when origination volumes drop. More information about the HCAI, including the breakdown by market segment, is available here.



Sources: eMBS, Corelogic, HMDA, IMF, and Urban Institute.
Note: All series measure the first-time homebuyer share of purchase loans for principal residences. *Last updated April 2017.*

Originator Profitability and Unmeasured Costs

When originator profits are higher, mortgage volumes are less responsive to changes in interest rates, because originators are at capacity. Originator Profitability and Unmeasured Costs (OPUC), formulated and calculated by the Federal Reserve Bank of New York, is a good relative measure of originator profitability. OPUC uses the sales price of the mortgage in the secondary market (less par) and adds two additional sources of profitability; retained servicing (both base and excess servicing, net of g-fees) and points paid by the borrower. Driven by the post-Brexit decline in interest rates, OPUC rose sharply to $3.21in July 2016. Since then it has declined to $2.29 in April 2017, the lowest level since January 2016.

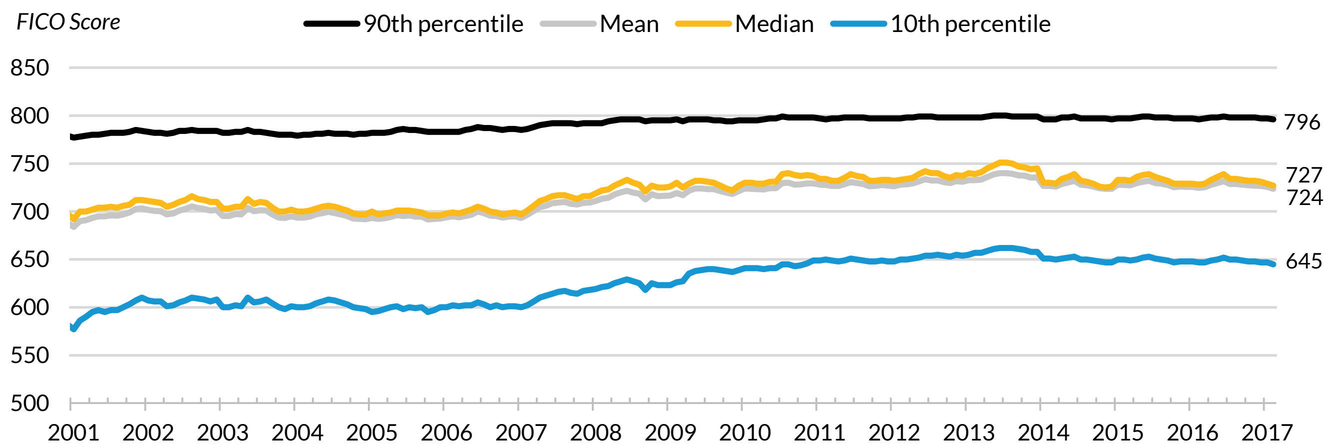


Sources: Federal Reserve Bank of New York, updated monthly and available at this link: http://www.ny.frb.org/research/epr/2013/1113fust.html and Urban Institute.
Note: OPUC is a is a monthly (4-week moving) average as discussed in Fuster et al. (2013).

CREDIT AVAILABILITY FOR PURCHASE LOANS

Access to credit has become extremely tight, especially for borrowers with low FICO scores. The mean and median FICO scores on new originations have both drifted up about 27 and 26 points over the last decade, respectively. The 10th percentile of FICO scores, which represents the lower bound of creditworthiness needed to qualify for a mortgage, stood at 645 as of February 2017. Prior to the housing crisis, this threshold held steady in the low 600s. LTV levels at origination remain relatively high, averaging 88.0, which reflects the large number of FHA purchase originations.

Borrower FICO Score at Origination



Sources: Corelogic, eMBS, HMDA, SIFMA and Urban Institute.
Note: Includes owner-occupied purchase loans only

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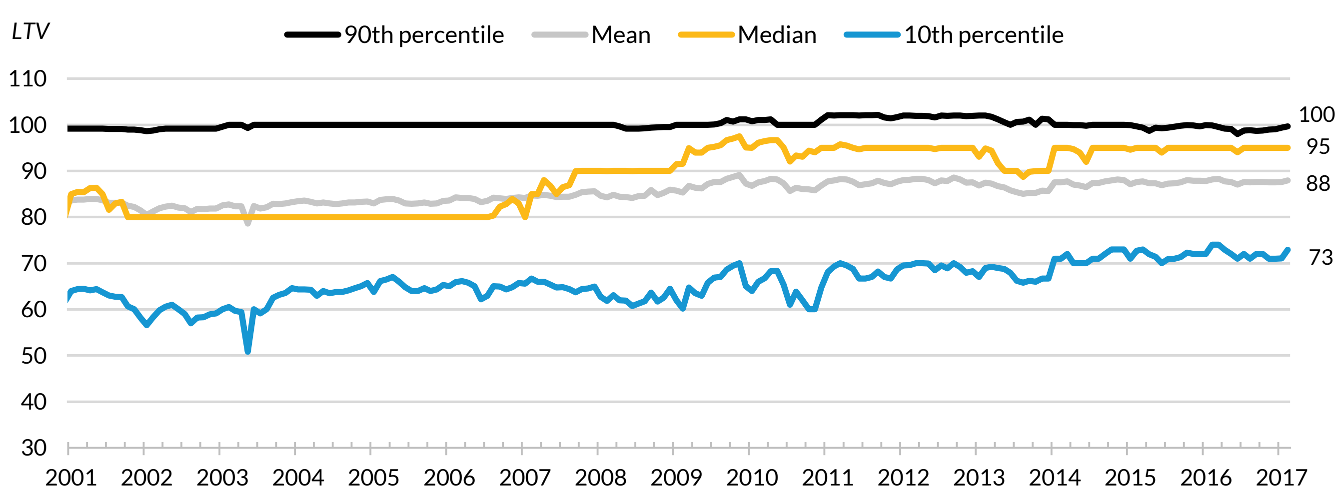
Combined LTV at Origination



Sources: Corelogic, eMBS, HMDA, SIFMA and Urban Institute.
Note: Includes owner-occupied purchase loans only

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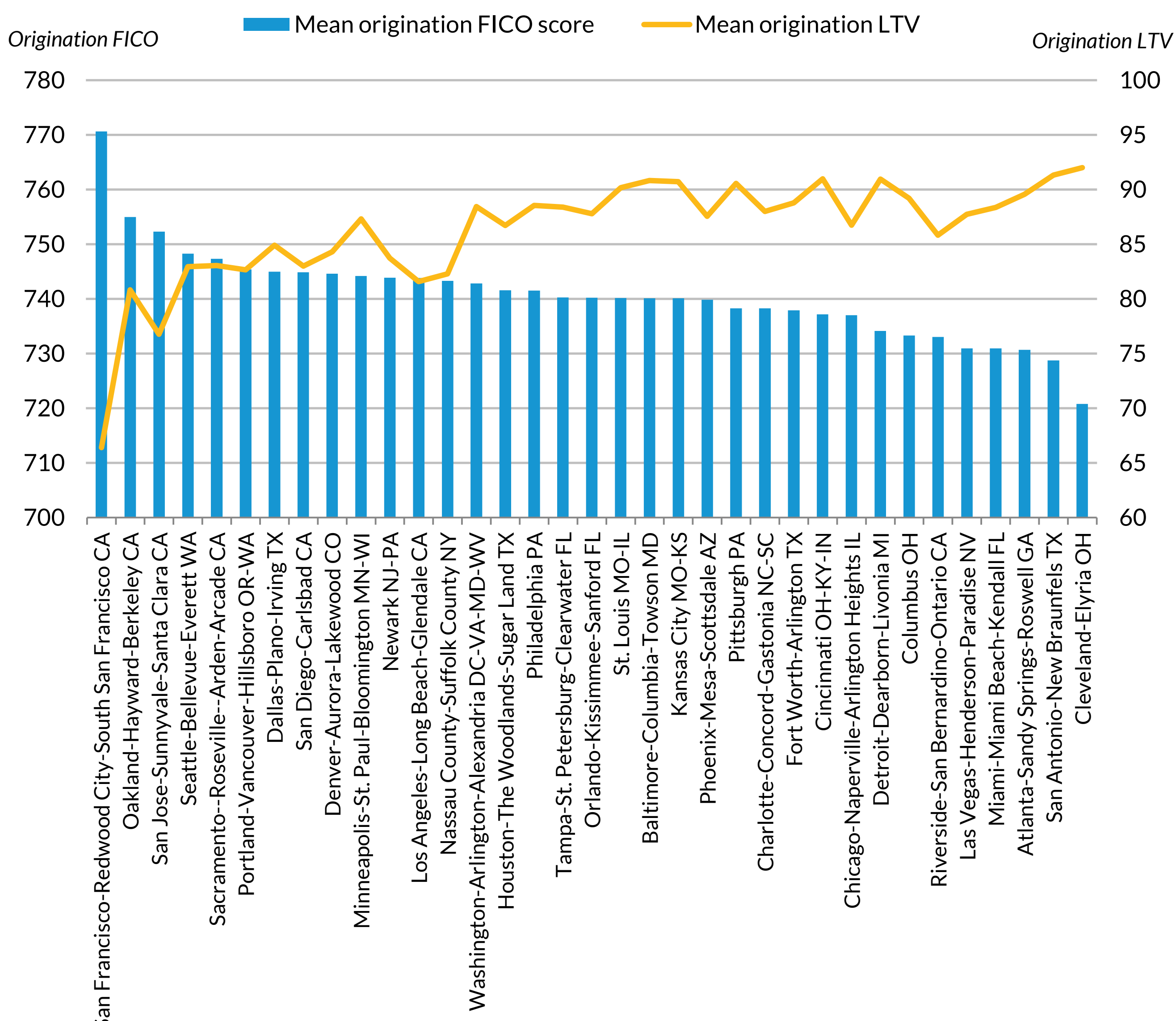
CREDIT AVAILABILITY FOR PURCHASE LOANS

Credit has been tight for all borrowers with less-than-stellar credit scores--especially in MSAs with high housing prices. For example, the mean origination FICO for borrowers in San Francisco- Redwood City- South San Francisco, CA is 770 and in Cleveland-Elyria, OH it is 720. Across all MSAs, lower average FICO scores tend to be correlated with high average LTVs, as these MSAs rely heavily on FHA/VA financing.

Origination FICO and LTV



Sources: Corelogic, eMBS, HMDA, SIFMA and Urban Institute.
Note: Includes owner-occupied purchase loans only. Data as of February 2017.

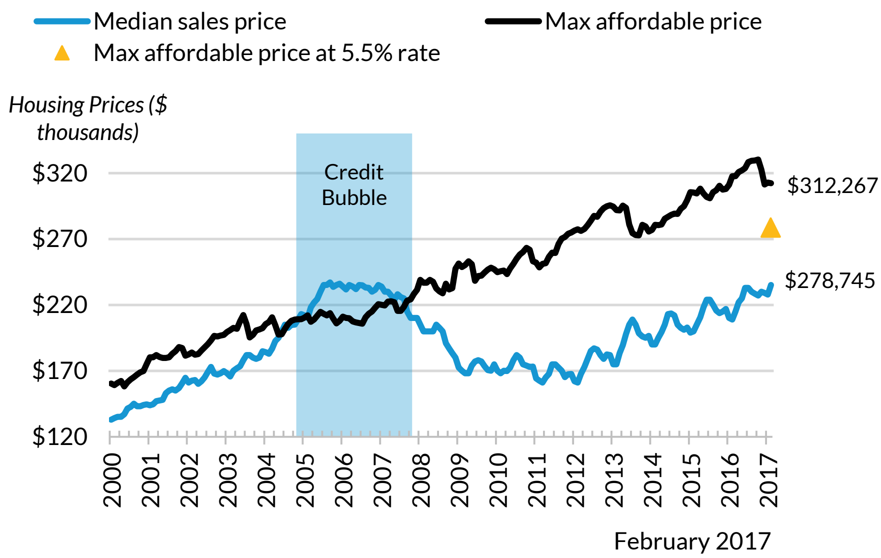
STATE OF THE MARKET

HOUSING AFFORDABILITY

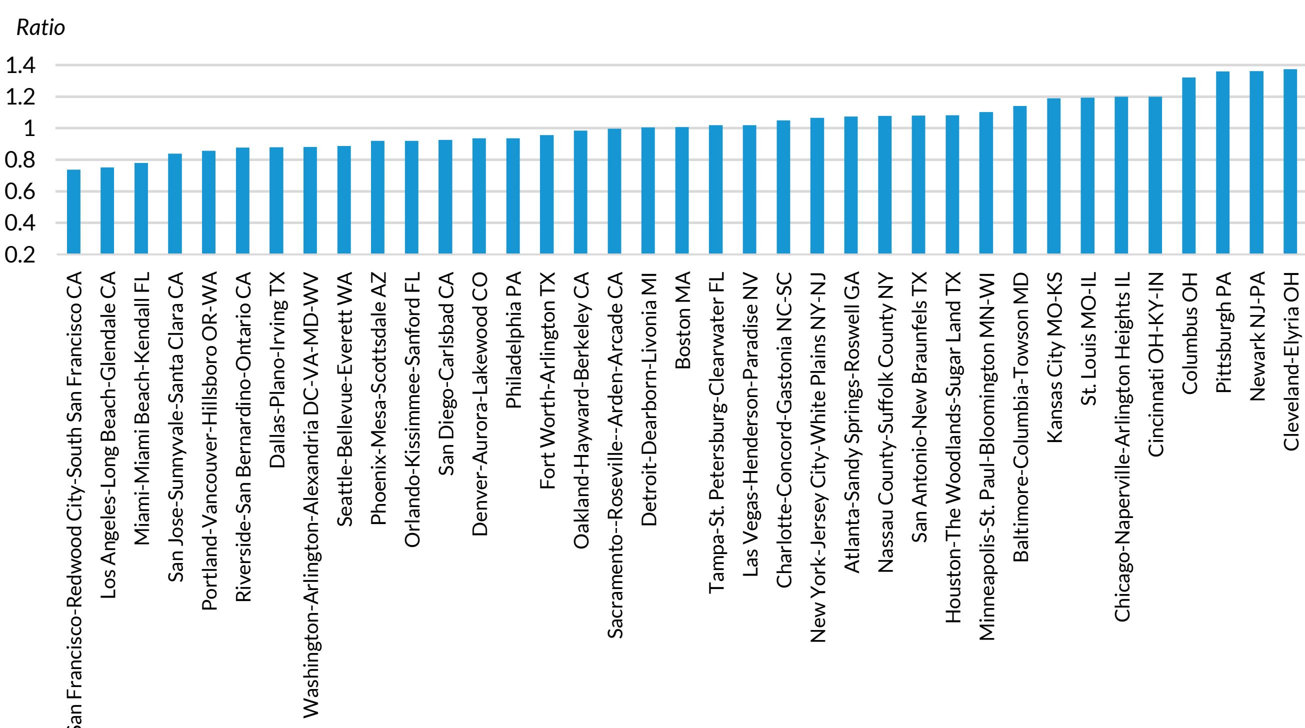
National Housing Affordability Over Time

Home prices are still very affordable by historic standards, despite increases over the last four years and the recent interest rate hike. Even if interest rates rise to 5.5 percent, affordability would still be at the long term historical average. The bottom chart shows that some areas are much more affordable than others.

Sources: CoreLogic, US Census, Freddie Mac and Urban Institute.
Note: The maximum affordable price is the house price that a family can afford putting 20 percent down, with a monthly payment of 28 percent of median family income, at the Freddie Mac prevailing rate for 30-year fixed-rate mortgage, and property tax and insurance at 1.75 percent of housing value.



Affordability Adjusted for MSA-Level DTI

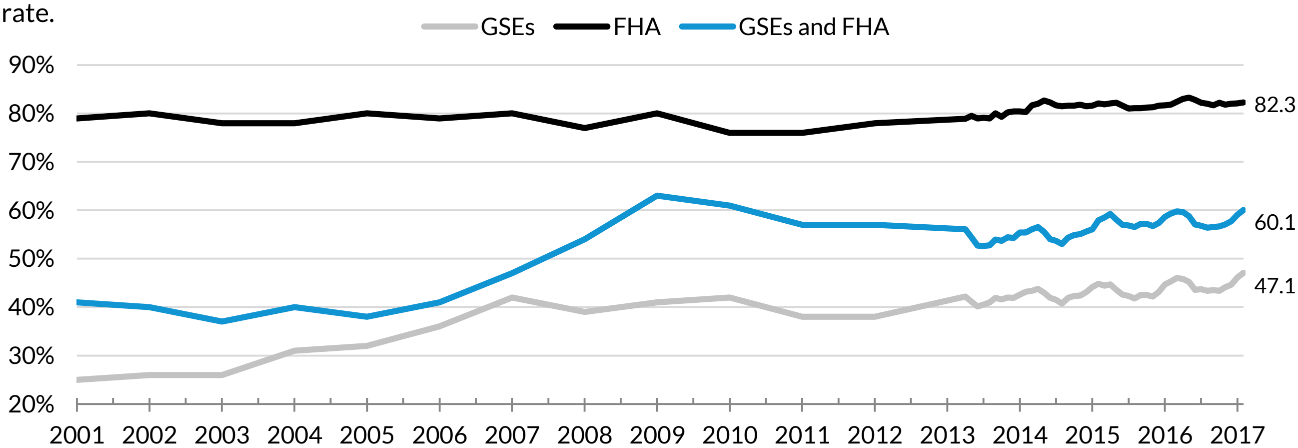


Sources: CoreLogic, US Census, Freddie Mac and Urban Institute calculations based on NAR methodology.
Note: Index is calculated relative to home prices in 2000-03. A ratio above 1 indicates higher affordability in February 2017 than in 2000-03.

FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

In February 2017, the first-time homebuyer share of GSE purchase loans rose for the second consecutive month to 47.1 percent, the highest level in recent history. The FHA, which has always been more focused on first-time homebuyers, with its first-time homebuyer share hovering around 80 percent, stood at 82.3 percent in February 2017, down from the peak of 83.3 percent in May 2016. The bottom table shows that based on mortgages originated in February 2016, the average first-time homebuyer was more likely than an average repeat buyer to take out a smaller loan and have a lower credit score and higher LTV and DTI, thus requiring a higher interest rate.



Sources: eMBS, Federal Housing Administration (FHA) and Urban Institute.
Note: All series measure the first-time homebuyer share of purchase loans for principal residences.

February 2017

Comparison of First-Time and Repeat Homebuyers, GSE and FHA Originations

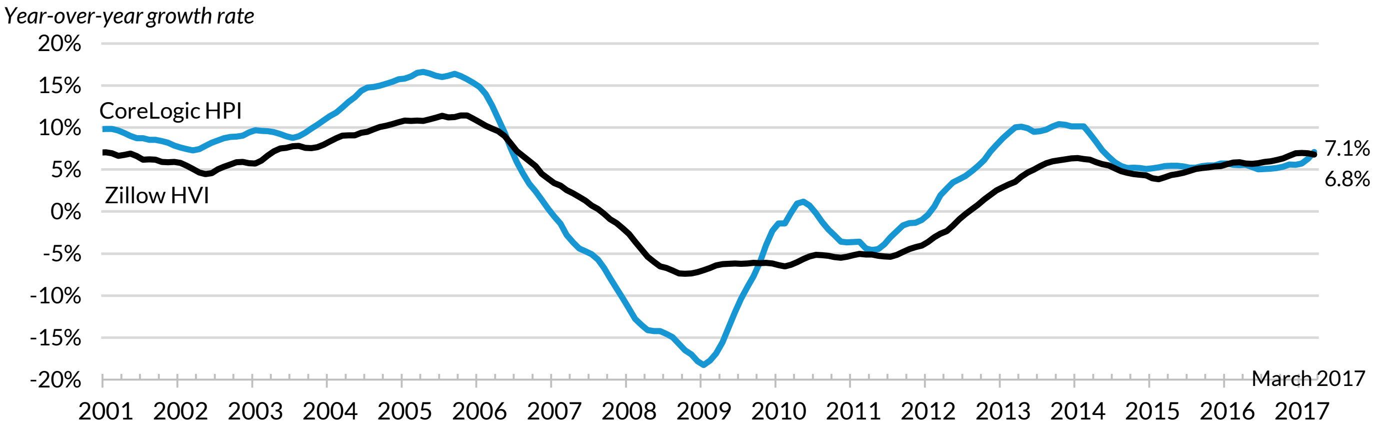
	GSEs		FHA		GSEs and FHA	
Characteristics	First-time	Repeat	First-time	Repeat	First-time	Repeat
Loan Amount ($)	225,130	249,277	196,962	219,798	210,495	242,322
Credit Score	739.7	754.2	676.9	686.1	707.1	738.1
LTV (%)	86.5	79.2	95.5	94.2	90.9	82.4
DTI (%)	34.1	35.2	41.8	43.1	38.1	37.0
Loan Rate (%)	4.34	4.24	4.24	4.16	4.29	4.22

Sources: eMBS and Urban Institute.
Note: Based on owner-occupied purchase mortgages originated in February 2017.

HOME PRICE INDICES

National Year-Over-Year HPI Growth

While the strong year-over-year home price growth from 2012 to 2013 has slowed somewhat, home price appreciation remains robust as measured by the repeat sales index from CoreLogic and hedonic index from Zillow. We will continue to closely monitor how rising mortgage rates impact this strong growth.



Sources: CoreLogic, Zillow, and Urban Institute.

Changes in CoreLogic HPI for Top MSAs

Despite rising 46 percent from the trough, national house prices still must grow 2.9 percent to reach pre-crisis peak levels. At the MSA level, seven of the top 15 MSAs have reached their peak HPI– New York, NY; Los Angeles, CA; Atlanta, GA; Houston, TX; Dallas, TX; Seattle, WA and Denver, CO. Two MSAs particularly hard hit by the boom and bust– Phoenix, AZ and Riverside, CA– would need to rise 26 and 28 percent to return to peak levels, respectively.

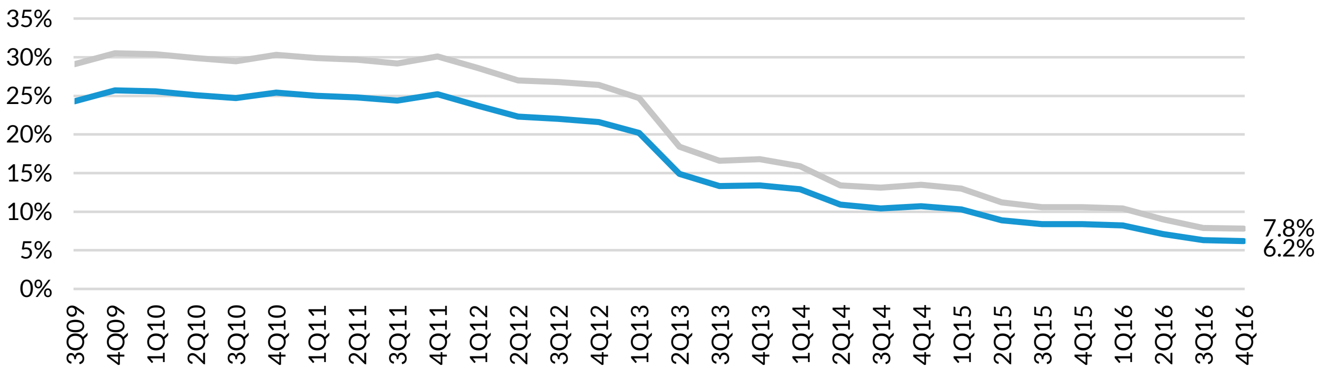
MSA	HPI changes (%)			% Rise needed to achieve peak
	2000 to peak	Peak to trough	Trough to current	
United States	93.7	-33.4	46.0	2.9
New York-Jersey City-White Plains NY-NJ	112.3	-16.7	28.4	-6.5
Los Angeles-Long Beach-Glendale CA	177.3	-38.4	62.8	-0.2
Chicago-Naperville-Arlington Heights IL	66.1	-35.8	32.0	18.0
Atlanta-Sandy Springs-Roswell GA	37.9	-33.0	54.1	-3.1
Washington-Arlington-Alexandria DC-VA-MD-WV	155.5	-34.3	35.6	12.2
Houston-The Woodlands-Sugar Land TX	39.7	-14.0	44.2	-19.3
Phoenix-Mesa-Scottsdale AZ	123.8	-52.7	68.3	25.7
Riverside-San Bernardino-Ontario CA	186.2	-52.7	64.8	28.4
Dallas-Plano-Irving TX	34.2	-13.8	53.4	-24.3
Minneapolis-St. Paul-Bloomington MN-WI	73.1	-30.4	37.5	4.6
Seattle-Bellevue-Everett WA	91.0	-29.2	71.7	-17.8
Denver-Aurora-Lakewood CO	35.6	-13.3	69.0	-31.7
Baltimore-Columbia-Towson MD	122.8	-24.5	10.4	20.0
San Diego-Carlsbad CA	144.9	-37.6	55.1	3.3
Anaheim-Santa Ana-Irvine CA	161.1	-35.9	51.1	3.2

Sources: CoreLogic HPIs and Urban Institute. Data as of March 2017.
Note: This table includes the largest 15 Metropolitan areas by mortgage count.

STATE OF THE MARKET
NEGATIVE EQUITY & SERIOUS DELINQUENCY

Negative Equity Share

With housing prices continuing to appreciate, residential properties in negative equity (LTV greater than 100) as the share of all residential properties with a mortgage continued to decline and stood at 6.2 percent as of Q4 2016. Residential properties in near negative equity (LTV between 95 and 100) comprise another 1.6 percent.

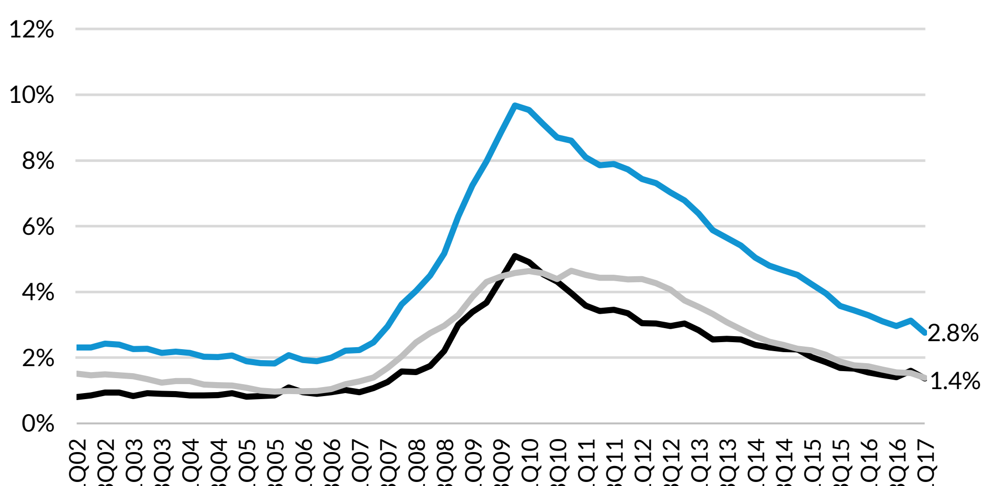


Sources: CoreLogic and Urban Institute.
Note: CoreLogic negative equity rate is the percent of all residential properties with a mortgage in negative equity. Loans with negative equity refer to loans above 100 percent LTV. Loans near negative equity refer to loans above 95 percent LTV. *Last updated March 2017.*

Loans in Serious Delinquency/Foreclosure

90 day delinquencies resumed their decline from 1.60 to 1.37 percent in Q1 2017, after last quarter's seasonal upswing. The percent of loans in foreclosure continued to edge down to 1.39 percent. The combined delinquencies totaled 2.76 percent in Q1 2017, down from 3.13 percent in Q4 2016 and 3.29 percent for the same quarter a year earlier.

Percent of loans 90 days delinquent or in foreclosure
Percent of loans 90 days delinquent
Percent of loans in foreclosure

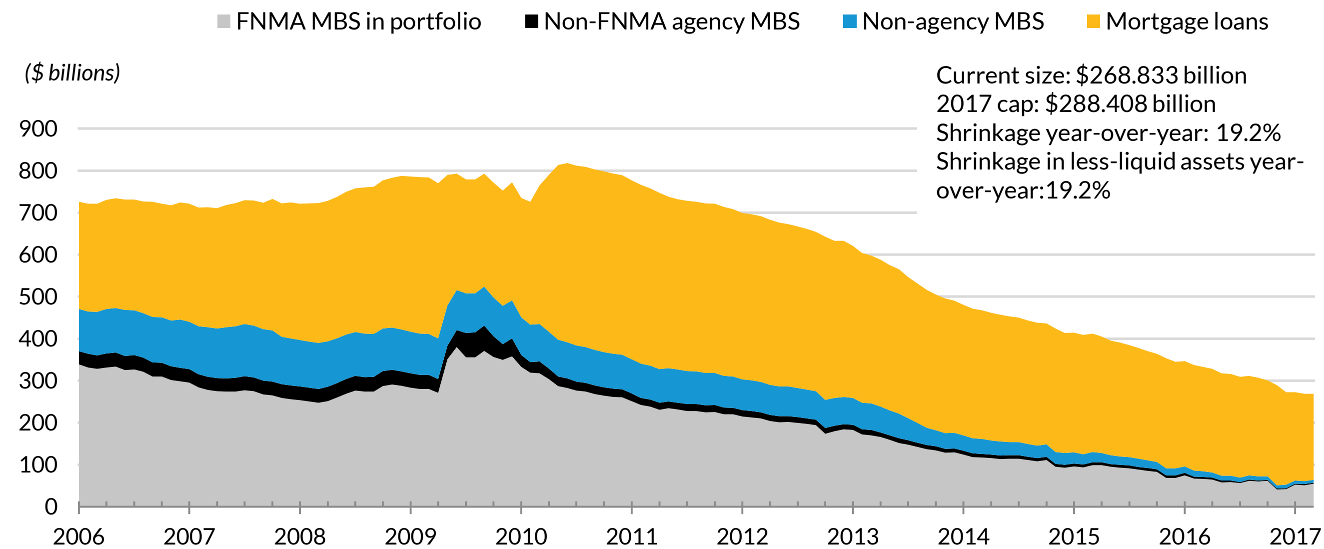


Sources: Mortgage Bankers Association and Urban Institute.

GSE PORTFOLIO WIND-DOWN

Both GSEs continue to contract their portfolios. Since March 2016, Fannie Mae has contracted by 19.2 percent and Freddie Mac by 14.3 percent. They are shrinking their less liquid assets (mortgage loans and non-agency MBS) at close to the same pace that they are shrinking their entire portfolio. As of March 2017, Fannie Mae had already reached its 2017 cap, and Freddie Mac was just above it.

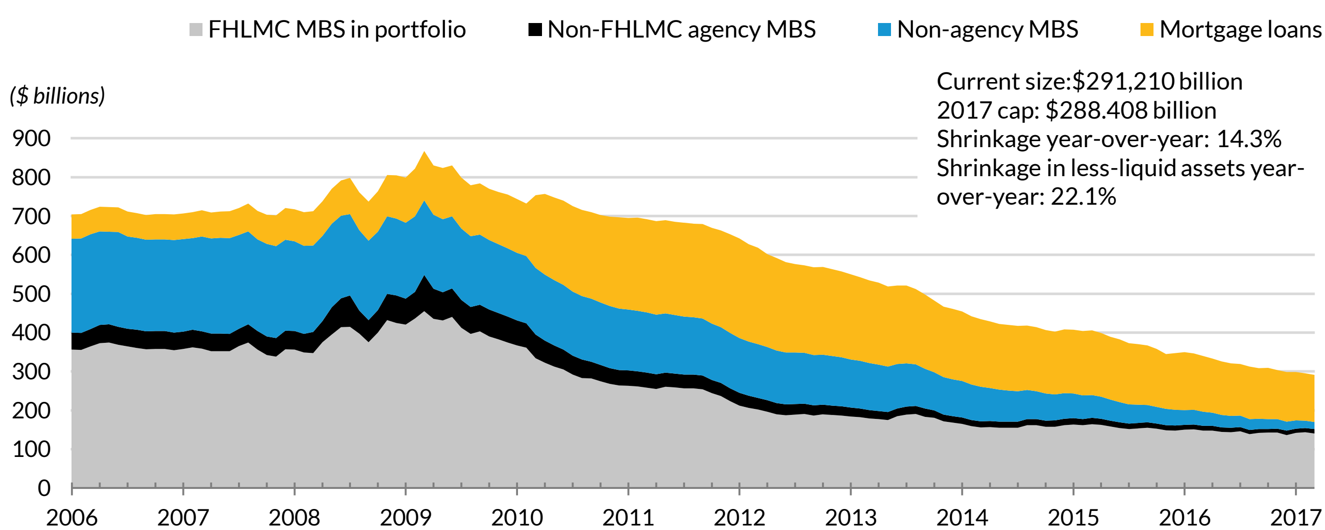
Fannie Mae Mortgage-Related Investment Portfolio Composition



Sources: Fannie Mae and Urban Institute.

March 2017

Freddie Mac Mortgage-Related Investment Portfolio Composition



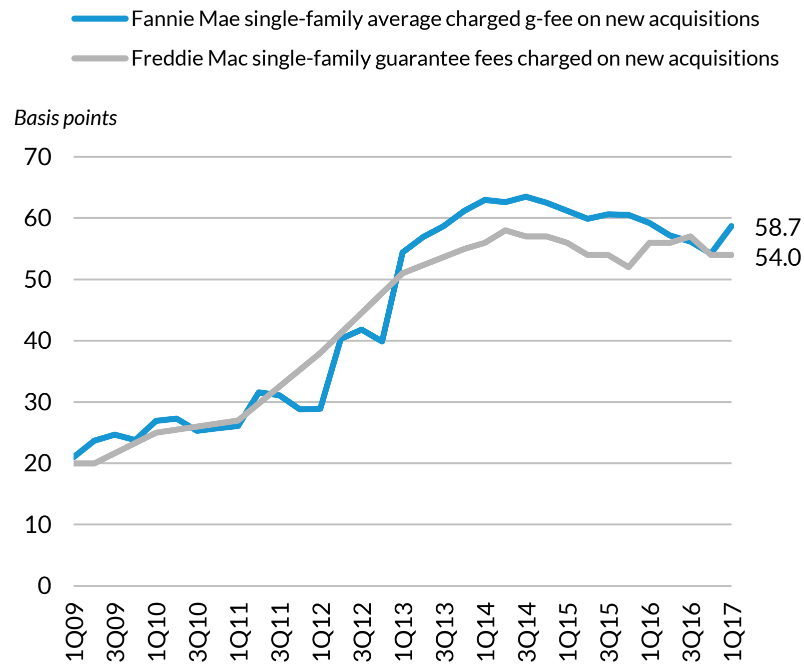
Sources: Freddie Mac and Urban Institute.

March 2017

EFFECTIVE GUARANTEE FEES

Guarantee Fees Charged on New Acquisitions

The latest 10-K indicates that Fannie's average g-fees on new acquisitions increased from 54.2 to 58.7 bps in Q1 2017 and Freddie's remained flat at 54 bps. This is still a marked increase over 2012 and 2011, and has contributed to the GSEs' profits. The GSE's latest Loan-Level Pricing Adjustments (LLPAs) were effective in September 2015; the bottom table shows the Fannie Mae LLPAs, which are expressed as upfront charges. Note that the September 2015 changes were very modest, and did not have a material impact on GSE pricing. In particular, the Adverse Market Delivery Charge (ADMC) of 0.25 percent was eliminated, and LLPAs for some borrowers were slightly increased to compensate for the revenue loss.



Sources: Fannie Mae, Freddie Mae and Urban Institute.
Last updated May 2017.

Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

	LTV							
Credit Score	≤60	60.01 – 70	70.01 – 75	75.01 – 80	80.01 – 85	85.01 – 90	90.01 – 95	95.01 – 97
> 740	0.00%	0.25%	0.25%	0.50%	0.25%	0.25%	0.25%	0.75%
720 – 739	0.00%	0.25%	0.50%	0.75%	0.50%	0.50%	0.50%	1.00%
700 – 719	0.00%	0.50%	1.00%	1.25%	1.00%	1.00%	1.00%	1.50%
680 – 699	0.00%	0.50%	1.25%	1.75%	1.50%	1.25%	1.25%	1.50%
660 – 679	0.00%	1.00%	2.25%	2.75%	2.75%	2.25%	2.25%	2.25%
640 – 659	0.50%	1.25%	2.75%	3.00%	3.25%	3.75%	2.75%	2.75%
620 – 639	0.50%	1.50%	3.00%	3.00%	3.25%	3.25%	3.25%	3.50%
< 620	0.50%	1.50%	3.00%	3.00%	3.25%	3.25%	3.25%	3.75%
Product Feature (Cumulative)								
High LTV	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Investment Property	2.125%	2.125%	2.125%	3.375%	4.125%	N/A	N/A	N/A

Sources: Fannie Mae and Urban Institute.
Note: For whole loans purchased on or after September 1, 2015, or loans delivered into MBS pools with issue dates on or after September 1, 2015.

GSE RISK-SHARING TRANSACTIONS

Fannie Mae and Freddie Mac have been laying off back-end credit risk through CAS and STACR as well as through reinsurance transactions. They have also done a few front-end transactions with originators and experimented with deep mortgage insurance coverage with private mortgage insurers. FHFA's 2017 scorecard requires the GSEs to lay off credit risk on 90 percent of newly acquired loans in categories targeted for transfer. Fannie Mae's CAS issuances to date cover 29 percent of its outstanding guarantees, while Freddie's STACR covers 42 percent. In May 2017, Fannie Mae completed another $41 Billion CAS deal, adding to two other deals earlier this year.

Fannie Mae – Connecticut Avenue Securities (CAS)

Date	Transaction	Reference Pool Size ($ m)	Amount Issued ($m)	% of Reference Pool Covered
2013	CAS 2013 deals	$26,756	$675	2.5%
2014	CAS 2014 deals	$227, 234	$5,849	2.6%
2015	CAS 2015 deals	$187,126	$5,463	2.9%
February 2016	CAS 2016 – C01	$28,882	$945	3.3%
March 2016	CAS 2016 – C02	$35,004	$1,032	2.9%
April 2016	CAS 2016 – C03	$36,087	$1,166	3.2%
July 2016	CAS 2016 – C04	$42,179	$1,322	3.1%
August 2016	CAS 2016 - C05	$38,668	$1,202	3.1%
November 2016	CAS 2016 - C06	$33,124	$1,024	3.1%
December 2016	CAS 2016 – C07	$22,515	$702	3.1%
January 2017	CAS 2017 – C01	$43,758	$1,351	3.1%
March 2017	CAS 2017 – C02	$39,988	$1,330	3.3%
May 2017	CAS 2017 – C03	$41,246	$1,371	3.3%
Total		**$802,567**	**$23,431**	**2.9%**
Percent of Fannie Mae's Total Book of Business		**28.97%**		

Freddie Mac – Structured Agency Credit Risk (STACR)

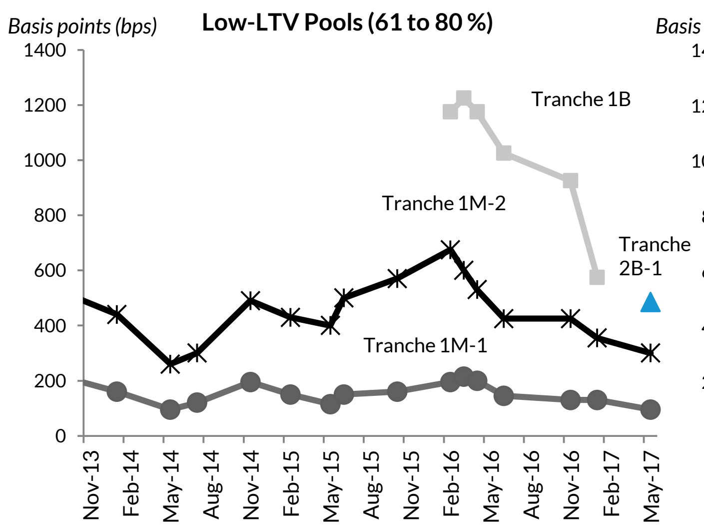
Date	Transaction	Reference Pool Size ($ m)	Amount Issued ($m)	% of Reference Pool Covered
2013	STACR 2013 deals	$57,912	$1,130	2.0%
2014	STACR 2014 deals	$147,120	$4,916	3.3%
2015	STACR 2015 deals	$209,521	$6,658	3.2%
January 2016	STACR Series 2016 – DNA1	$35,700	$996	2.8%
March 2016	STACR Series 2016 – HQA1	$17,931	$475	2.6%
May 2016	STACR Series 2016 – DNA2	$30,589	$916	3.0%
May 2016	STACR Series 2016 – HQA2	$18,400	$627	3.4%
June 2016	STACR Series 2016 – DNA3	$26,400	$795	3.0%
September 2016	STACR Series 2016 – HQA3	$15,709	$515	3.3%
September 2016	STACR Series 2016 – DNA4	$24,845	$739	3.0%
October 2016	STACR Series 2016 - HQA4	$13,847	$478	3.5%
January 2017	STACR Series 2017 – DNA1	$33, 965	$802	2.4%
February 2017	STACR Series 2017 – HQA1	$29,700	$753	2.5%
April 2017	STACR Series 2017 – DNA2	$60,716	$1,320	2.2%
Total		**$738,064**	**$21,120**	**2.9%**
Percent of Freddie Mac's Total Book of Business		**41.94%**		

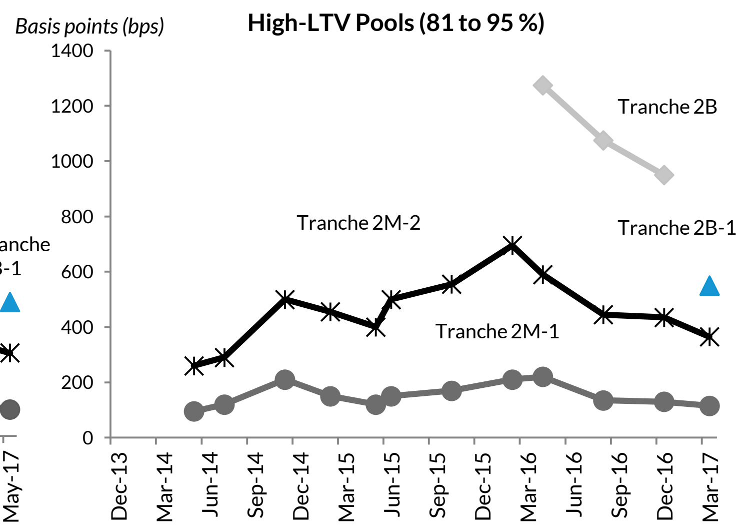
Sources: Fannie Mae, Freddie Mac and Urban Institute.
Note: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

GSE RISK-SHARING SPREADS

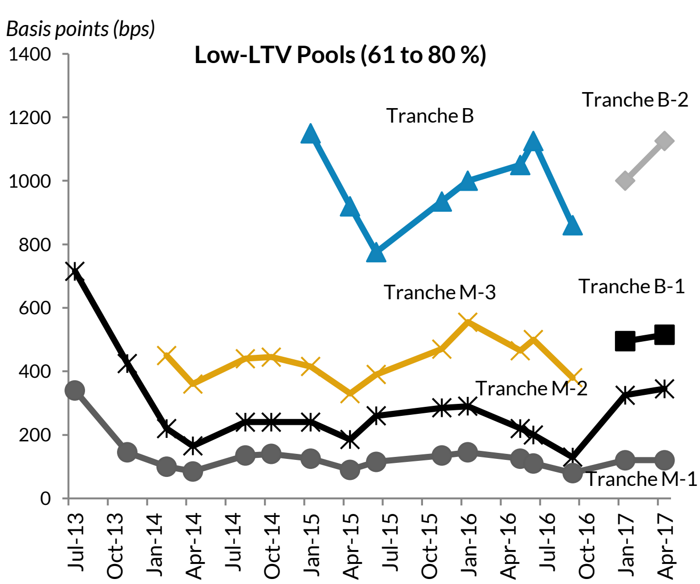
CAS and STACR spreads have moved around considerably since 2013, with the bottom mezzanine tranche and the first loss bonds experiencing considerably more volatility than the top mezzanine bonds. Tranche B in particular has been highly volatile because of its first loss position. Spreads widened especially during Q1 2016 due to falling oil prices, concerns about global economic growth and the slowdown in China. Since then spreads have resumed their downward trend but remain volatile.

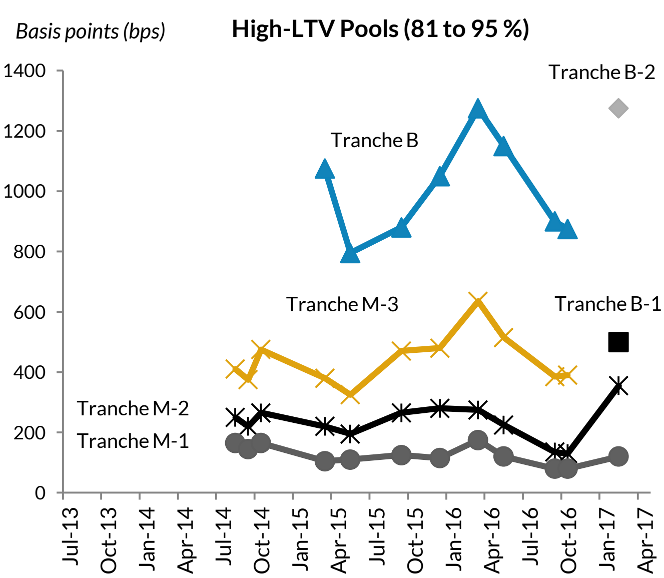
Fannie Mae CAS Spreads at-issuance (basis points over 1-month LIBOR)





Freddie Mac STACR Spreads at-issuance (basis points over 1-month LIBOR)





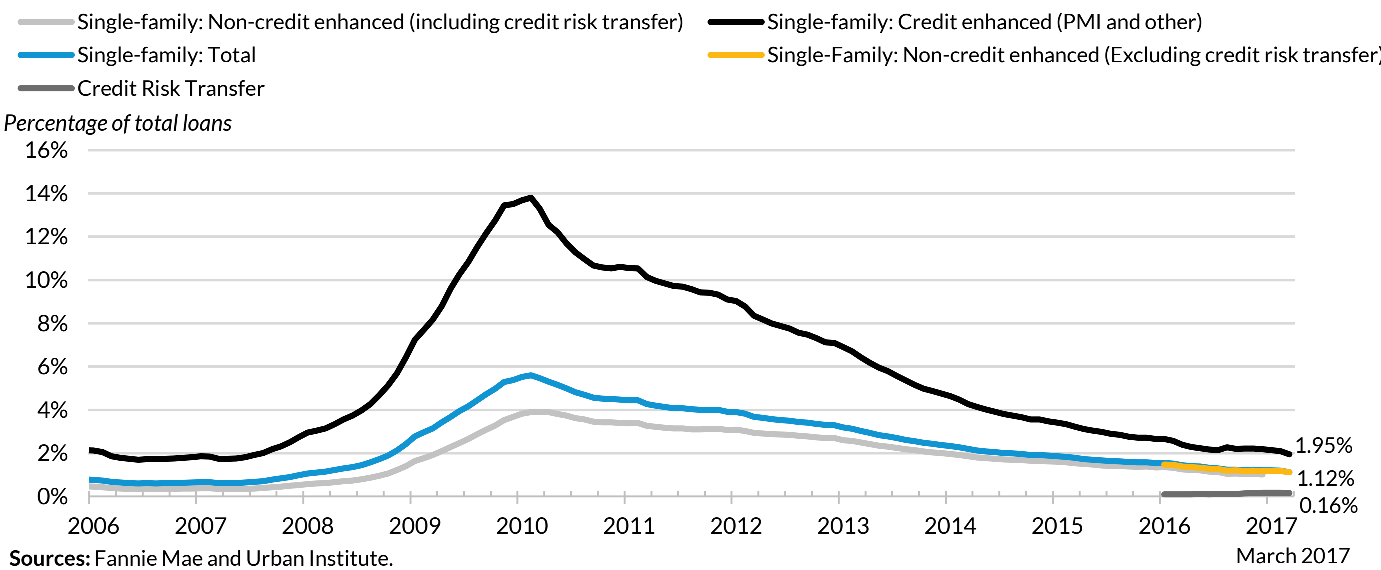
Sources: Fannie Mae, Freddie Mac Press Releases and Urban Institute.

GSES UNDER CONSERVATORSHIP

SERIOUS DELINQUENCY RATES

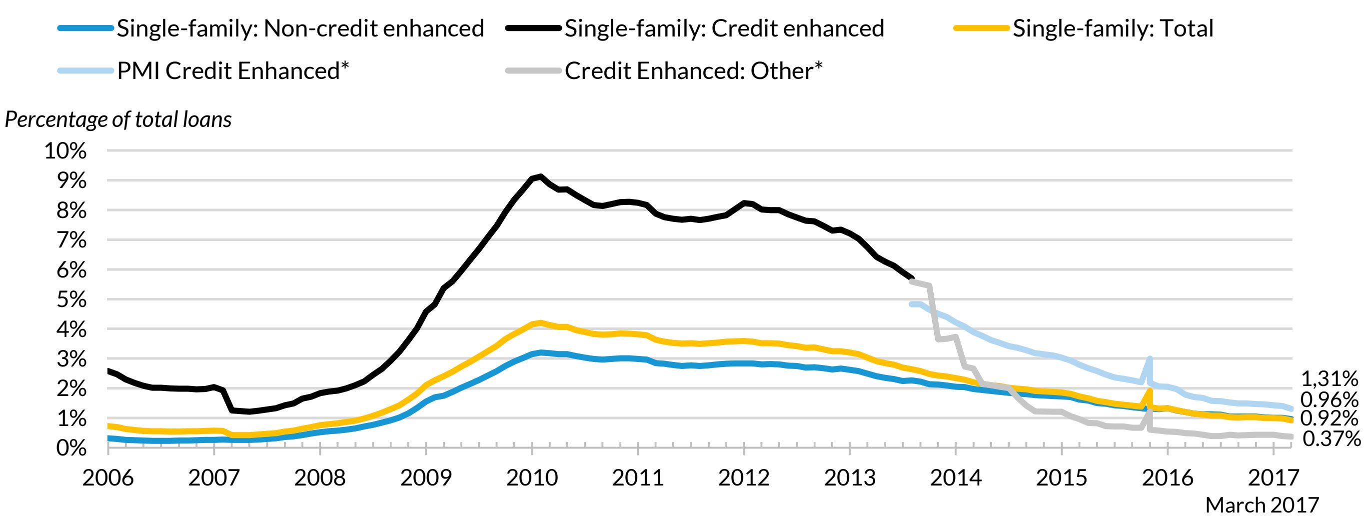
Serious delinquency rates of GSE loans continue to decline as the legacy portfolio is resolved and the pristine, post-2009 book of business exhibits very low default rates. As of March 2017, 1.12 percent of the Fannie portfolio and 0.96 percent of the Freddie portfolio were seriously delinquent, down from 1.44 percent for Fannie and 1.20 percent for Freddie in March 2016.

Serious Delinquency Rates–Fannie Mae



Sources: Fannie Mae and Urban Institute.
Note*: Following a change in Fannie reporting in March 2017, we started to report the credit risk transfer category and a new non-credit enhanced category that excludes loans covered by either primary MI or credit risk transfer transactions. Fannie reported these two new categories going back to January 2016.

Serious Delinquency Rates–Freddie Mac

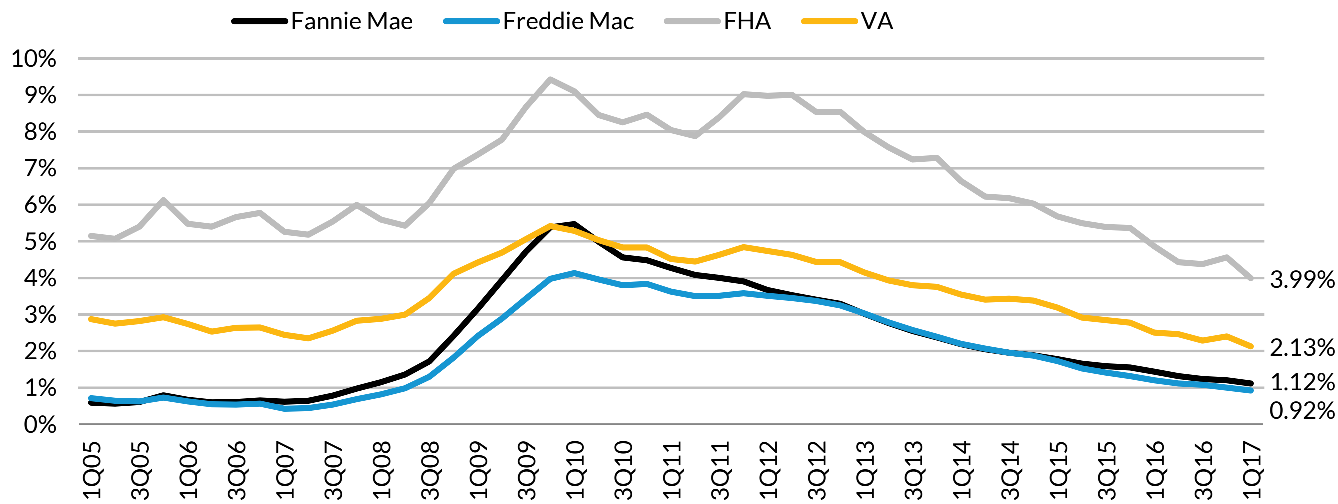


Sources: Freddie Mac and Urban Institute.
Note*: Following a change in Freddie reporting in September 2014, we switched from reporting credit enhanced delinquency rates to PMI and other credit enhanced delinquency rates. Freddie reported these two categories for credit-enhanced loans going back to August 2013. The other category includes single-family loans covered by financial arrangements (other than primary mortgage insurance) including loans in reference pools covered by STACR debt note transactions as well as other forms of credit protection.

SERIOUS DELINQUENCY RATES

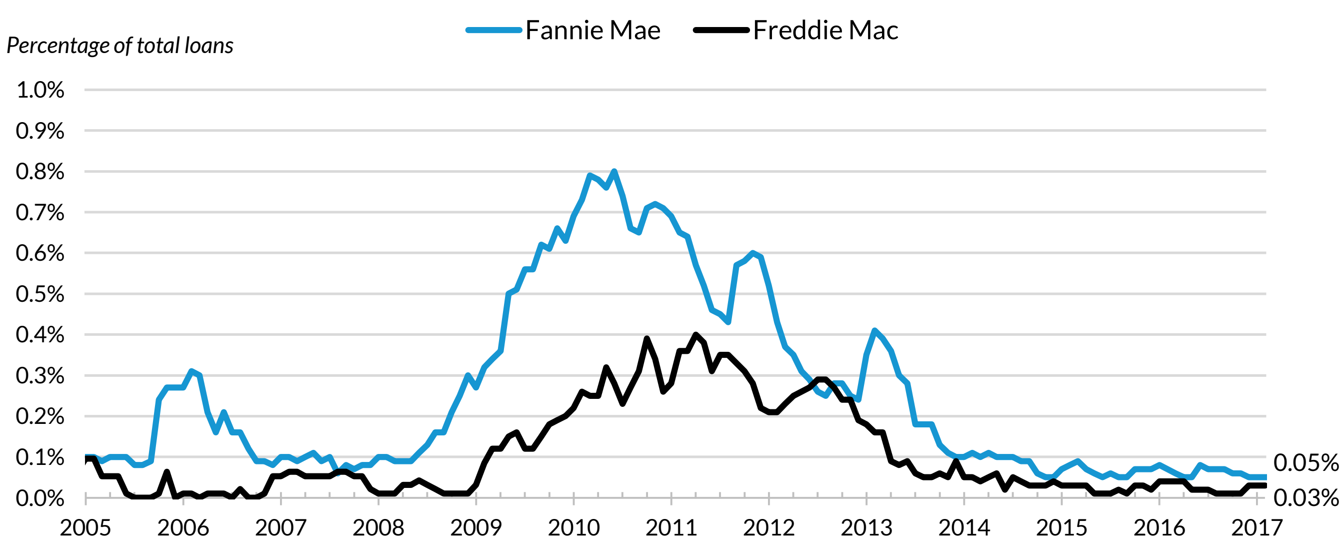
Serious delinquencies for GSE single-family loans continue to decline in Q1 2017. After last quarter's small seasonal upswing, both FHA and VA delinquencies resumed decline to 3.99 and 2.13 percent in Q1 2017, respectively, lower even than the level in Q3 2016 before the uptick (FHA: 4.38, VA:2.29 percent) . GSE delinquencies remain higher relative to 2005-2007, while FHA and VA delinquencies (which are higher than their GSE counterparts) are at levels lower than 2005-2007. GSE multifamily delinquencies have declined to pre-crisis levels, although they did not reach problematic levels even in the worst years of the crisis.

Serious Delinquency Rates–Single-Family Loans



Sources: Fannie Mae, Freddie Mac, MBA Delinquency Survey and Urban Institute.
Note: Serious delinquency is defined as 90 days or more past due or in the foreclosure process. Not seasonally adjusted.

Serious Delinquency Rates–Multifamily GSE Loans

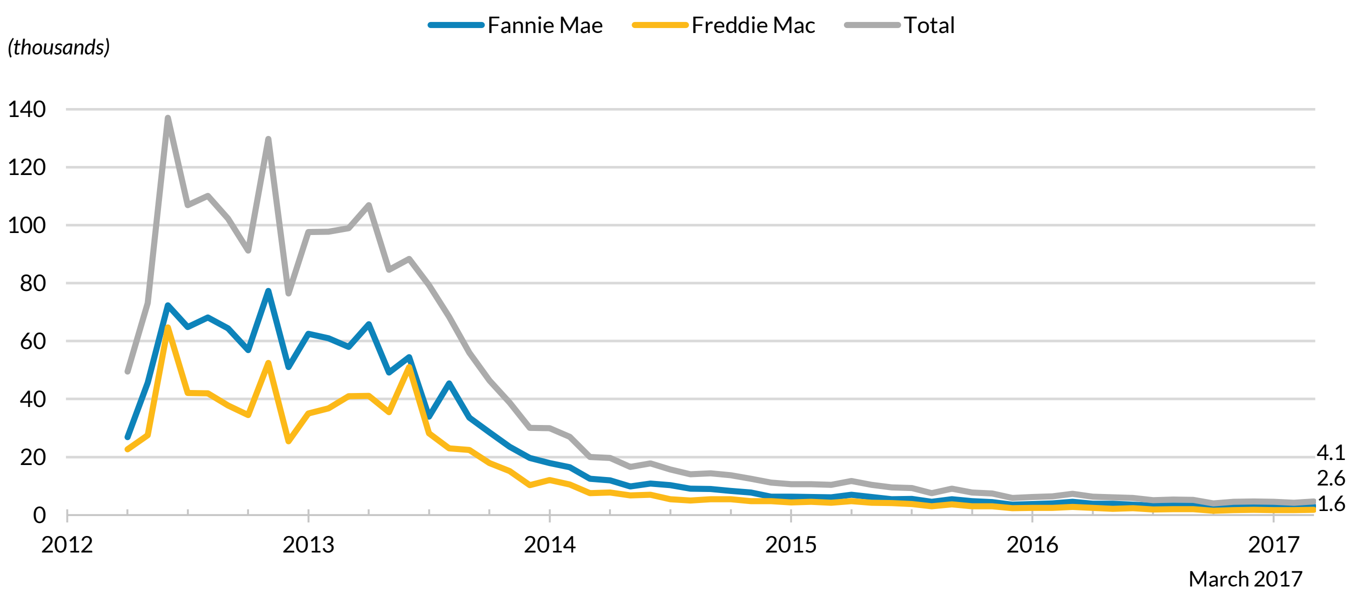


Sources: Fannie Mae, Freddie Mac and Urban Institute.
Note: Multifamily serious delinquency rate is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.

GSES UNDER CONSERVATORSHIP
REFINANCE ACTIVITY

The Home Affordable Refinance Program (HARP) refinances have slowed considerably, reflecting the high number of borrowers who have already refinanced. The trend is likely to continue especially with the recent rate increases. Since the program's Q2 2009 inception, HARP refinances total 3.45 million, accounting for 13.8 percent of all GSE refinances in this period. In March 2017, the latest month for which data is available, HARP refinances accounted for 2.2 percent of total refinances.

Total HARP Refinance Volume



Sources: FHFA Refinance Report and Urban Institute.

HARP Refinances

	March 2017	Q1 2017	Inception to date	2016	2015	2014
Total refinances	143,456	510,077	25,329,717	2,325,668	2,084,936	1,536,788
Total HARP refinances	4,674	13,425	3,461,096	67,114	110,111	212,488
Share 80–105 LTV	78.2%	80.7%	70.4%	79.4%	76.5%	72.5%
Share 105–125 LTV	15.0%	13.4%	17.1%	14.2%	15.6%	17.2%
Share >125 LTV	6.8%	5.8%	12.5%	6.5%	8.0%	10.3%
All other streamlined refinances	12,675	39,108	3,938,388	159,792	218,243	268,026

Sources: FHFA Refinance Report and Urban Institute.

GSES UNDER CONSERVATORSHIP

GSE LOANS: POTENTIAL REFINANCES

To qualify for HARP, a loan must be originated before the June 2009 cutoff date, have a marked-to-market loan-to-value (MTM LTV) ratio above 80, and have no more than one delinquent payment in the past year and none in the past six months. There are 210,574 eligible loans, but 50 percent are out-of-the-money because the closing cost would exceed the long-term savings, leaving 104,435 loans where a HARP refinance is both permissible and economically advantageous for the borrower. Loans below the LTV minimum but meeting all other HARP requirements are eligible for GSE streamlined refinancing. Of the 4,529,333 loans in this category, 3,466,131 are in-the-money.

Over 80 percent of the GSE book of business that meets the pay history requirements was originated after the June, 2009 cutoff date. FHFA extended the deadline for the HARP program until Sept 30, 2017 to create a transition period for a new high LTV refi product planned to launch toward the end of 2017.

Total loan count	27,513,785
Loans that do not meet pay history requirement	1,195,861
Loans that meet pay history requirement:	26,317,924
Pre-June 2009 origination	4,739,906
Post-June 2009 origination	21,578,017

Loans Meeting HARP Pay History Requirements

Pre-June 2009			
LTV category	*In-the-money*	*Out-of-the-money*	*Total*
≤80	3,466,131	1,063,202	4,529,333
>80	104,435	106,139	210,574
Total	3,570,566	1,169,341	4,739,906
Post-June 2009			
LTV category	*In-the-money*	*Out-of-the-money*	*Total*
≤80	1,941,211	17,090,090	19,031,301
>80	236,389	2,310,327	2,546,716
Total	2,177,601	19,400,417	21,578,017

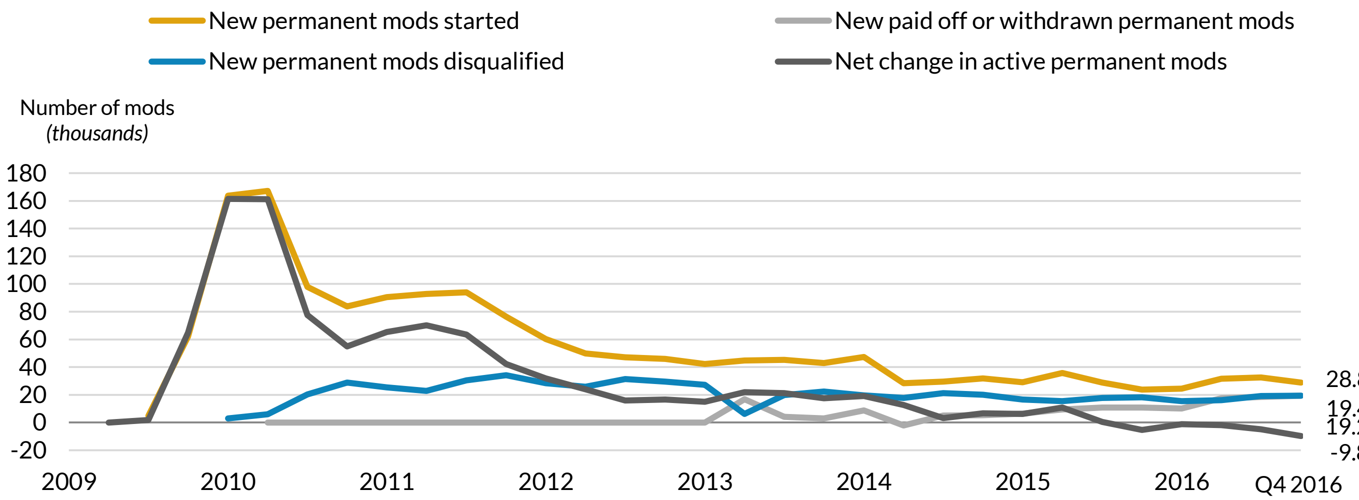
Sources: CoreLogic Prime Servicing as of March 2017 and Urban Institute.
Note: Figures are scaled up from source data to account for data coverage of the GSE active loan market (based on MBS data from eMBS). Shaded box indicates HARP-eligible loans that are in-the-money. The April PMMS rate of 4.05 percent was used to calculate this table.

MODIFICATION ACTIVITY

HAMP ACTIVITY

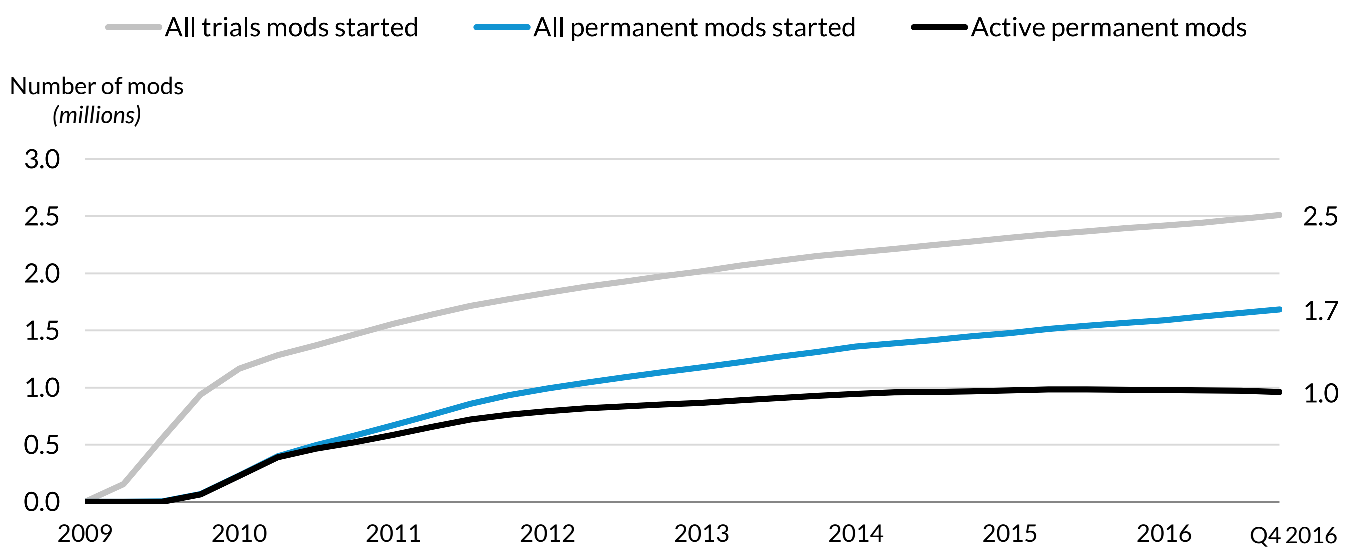
In Q4 2016, the number of active permanent modifications continued to fall by 9,812 mortgages, the fourth consecutive quarter with a decline since Q4 2015. There are three factors behind this change: Fewer new permanent modifications were made, some modifications failed because the borrowers did not make their payments, and a small number of borrowers either paid off their mortgage or withdrew their application. After the HAMP sunset at year-end 2016, no new modification applications were considered.

New HAMP Modications



Sources: U.S. Treasury Making Home Affordable and Urban Institute. *Last updated March 2017.*

Cumulative HAMP Modifications



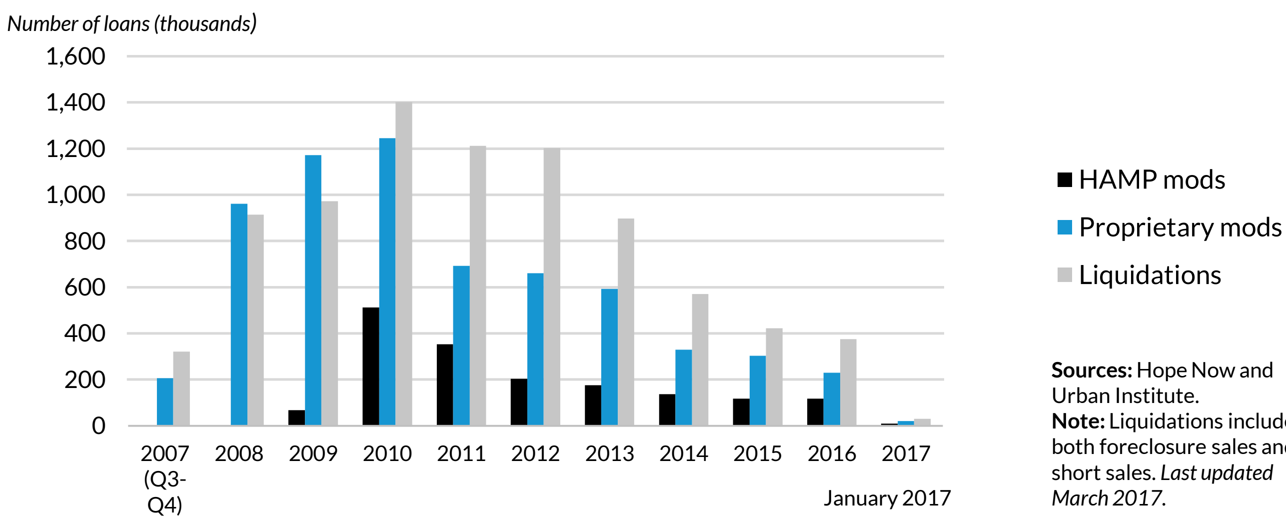
Sources: U.S. Treasury Making Home Affordable and Urban Institute. *Last updated March 2017.*

MODIFICATION ACTIVITY

MODIFICATIONS AND LIQUIDATIONS

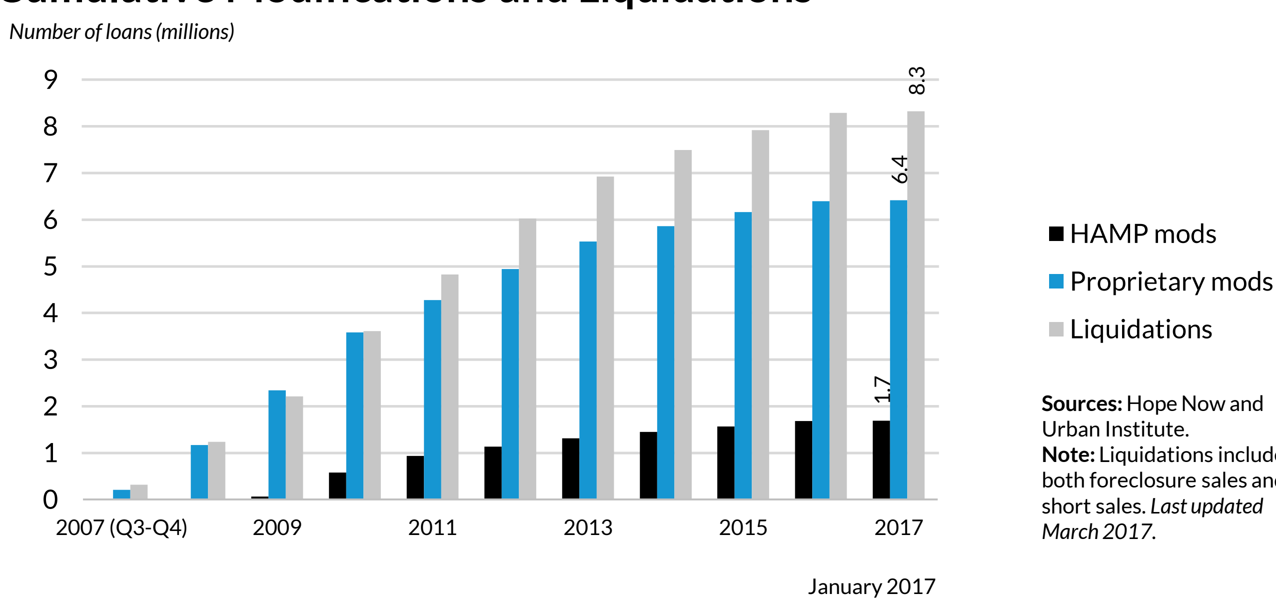
Total modifications (HAMP and proprietary) are now roughly equal to total liquidations. Hope Now reports show 8,104,292 borrowers have received a modification since Q3 2007, compared with 8,320,191 liquidations in the same period. Modifications and liquidations have slowed significantly over the past few years. In the first month of 2017, there were just 29,371 modifications and 29,890 liquidations.

Loan Modifications and Liquidations



Sources: Hope Now and Urban Institute.
Note: Liquidations include both foreclosure sales and short sales. *Last updated March 2017.*

Cumulative Modifications and Liquidations



Sources: Hope Now and Urban Institute.
Note: Liquidations includes both foreclosure sales and short sales. *Last updated March 2017.*

AGENCY ISSUANCE

AGENCY GROSS AND NET ISSUANCE

The agency gross issuance totaled $426.9 billion in the first four months of 2017, a 10.9 percent increase year-over-year, mostly due to the anemic issuances in early 2016. However, when measured on monthly basis, the agency gross issuance fell for three consecutive months through March 2017 and remained flat in April. If we annualize year to date gross issuance, volume is down sharply from 2016. Net issuance (which excludes repayments, prepayments, and refinances on outstanding mortgages) remained low, but was up 59.6 percent versus the same period in 2016.

Agency Gross Issuance

Issuance Year	GSEs	Ginnie Mae	Total
2000	$360.6	$102.2	$462.8
2001	$885.1	$171.5	$1,056.6
2002	$1,238.9	$169.0	$1,407.9
2003	$1,874.9	$213.1	$2,088.0
2004	$872.6	$119.2	$991.9
2005	$894.0	$81.4	$975.3
2006	$853.0	$76.7	$929.7
2007	$1,066.2	$94.9	$1,161.1
2008	$911.4	$267.6	$1,179.0
2009	$1,280.0	$451.3	$1,731.3
2010	$1,003.5	$390.7	$1,394.3
2011	$879.3	$315.3	$1,194.7
2012	$1,288.8	$405.0	$1,693.8
2013	$1,176.6	$393.6	$1,570.1
2014	$650.9	$296.3	$947.2
2015	$845.7	$436.3	$1,282.0
2016	$991.6	$508.2	$1,499.8
2017 YTD	$283.5	$143.4	$426.9
2017% Change year-over-year	13.9%	5.5%	10.9%
2017 Ann.	$850.5	$430.1	$1,280.6

Agency Net Issuance

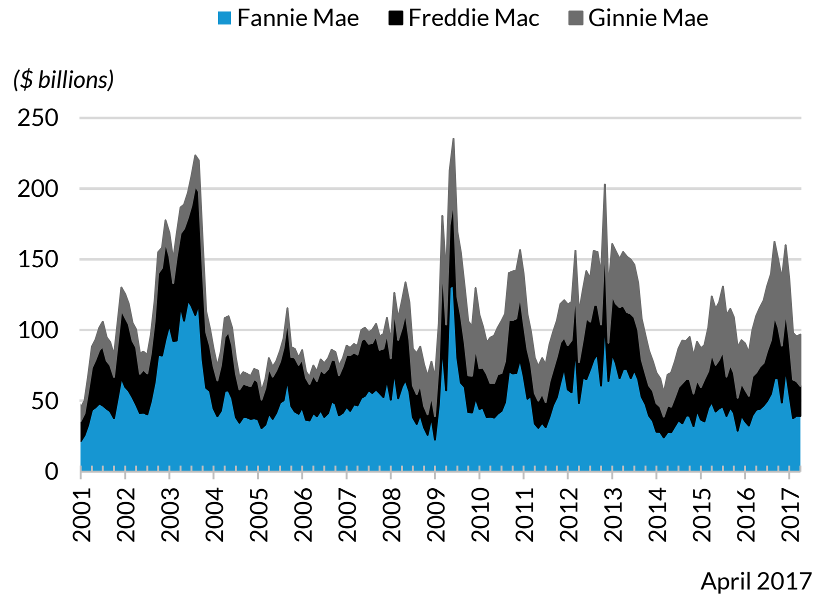
Issuance Year	GSEs	Ginnie Mae	Total
2000	$159.8	$29.3	$189.1
2001	$367.8	-$9.9	$357.9
2002	$357.6	-$51.2	$306.4
2003	$335.0	-$77.6	$257.4
2004	$83.3	-$40.1	$43.2
2005	$174.4	-$42.2	$132.1
2006	$313.6	$0.3	$313.8
2007	$514.7	$30.9	$545.5
2008	$314.3	$196.4	$510.7
2009	$249.5	$257.4	$506.8
2010	-$305.5	$198.2	-$107.3
2011	-$133.4	$149.4	$16.0
2012	-$46.5	$118.4	$71.9
2013	$66.5	$85.8	$152.3
2014	$30.3	$59.8	$90.1
2015	$75.0	$94.5	$169.5
2016	$135.4	$125.8	$261.3
2017 YTD	$52.2	$40.9	$93.1
2017% Change year-over-year	130.1%	14.8%	59.6%
2017 Ann.	$156.6	$122.6	$279.2

Sources: eMBS and Urban Institute.
Note: Dollar amounts are in billions. Annualized figure based on data from April 2017.

AGENCY GROSS ISSUANCE & FED PURCHASES

Monthly Gross Issuance

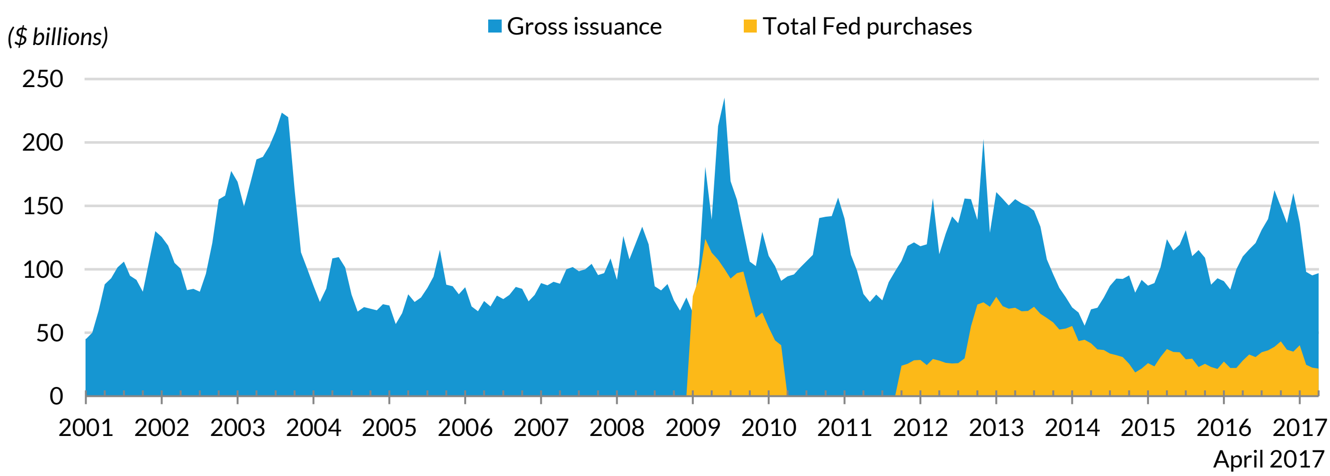
While government and GSE lending have dominated the mortgage market since the crisis, there has been a change in the mix. The Ginnie Mae share reached a peak of 28 percent of total agency issuance in 2010, declined to 25 percent in 2013, and has bounced back sharply since then. With the winter season and elevated mortgage rates since the election, monthly agency issuance has been declining in the four months of 2017. Fannie Mae gross issuance was almost cut in half from 73 billion in December 2016 to 39 billion in April 2017 and Freddie Mac's number dropped from 41 to 21 billion. Less dependent on refinances, Ginnie Mae gross issuance fell less from 47 to 36 billion in the same period, driving its share up to 38 percent in April 2017, the highest since December 2015.



Sources: eMBS, Federal Reserve Bank of New York, and Urban Institute.

Fed Absorption of Agency Gross Issuance

In October 2014, the Fed ended its purchase program, but continued buying at a much reduced level, reinvesting funds from pay downs on mortgages and agency debentures into the mortgage market. Since then, the Fed's absorption of gross issuance has been between 20 and 30 percent. In April 2017, agency gross issuance edged up to $97.0 billion while total Fed purchase dropped slightly to $21.8 billion, yielding Fed absorption of gross issuance of 22.5 percent, down from 23.7 percent last month.

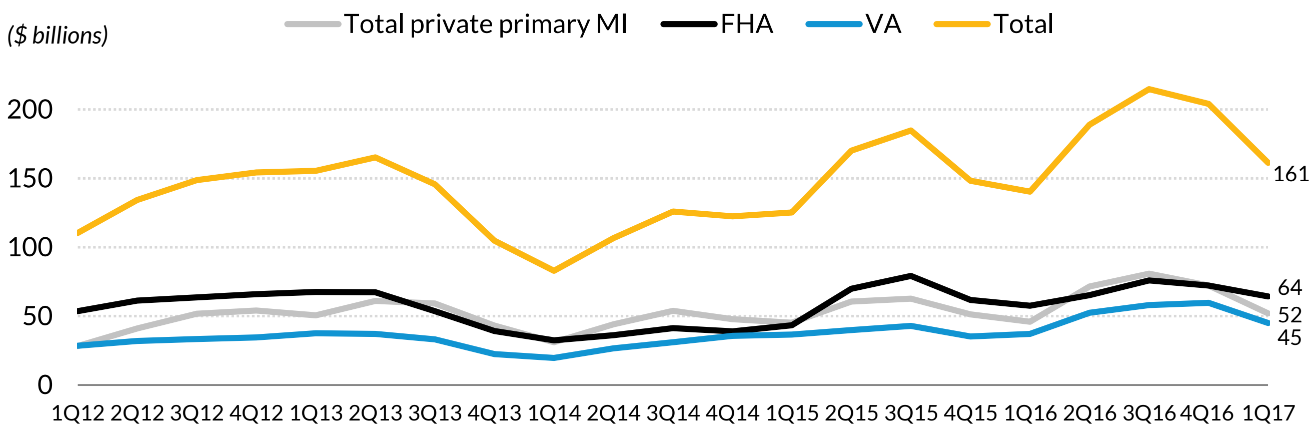


Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

AGENCY ISSUANCE
MORTGAGE INSURANCE ACTIVITY

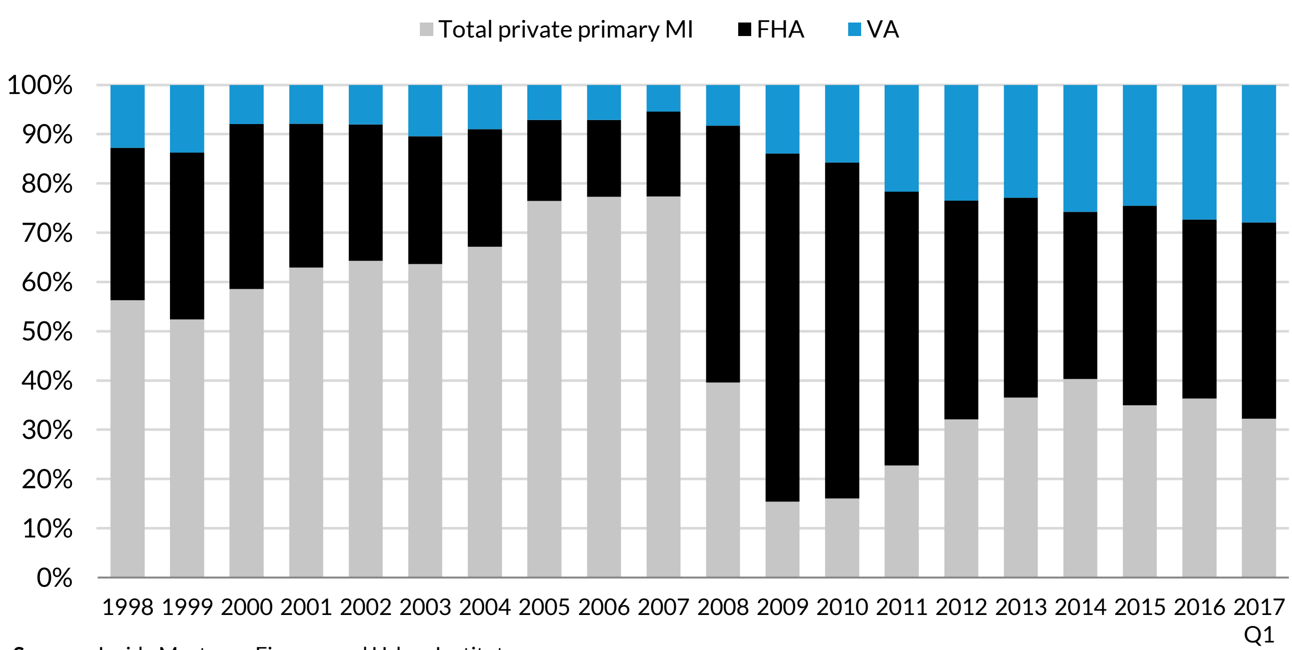
MI Activity

In Q1 2017, mortgage insurance activity via the FHA, VA and private insurers dropped from the previous quarter's $204 billion to $161 billion but was still up 15 percent year-over-year. While all three MI channels experienced decline, the private mortgage insurers dropped the most. As a result, FHA's market share increased to 40 percent in Q1 2017, while PMI decreased to 32 percent. VA stood at 28 percent YTD.



Sources: Inside Mortgage Finance and Urban Institute.

MI Market Share



Sources: Inside Mortgage Finance and Urban Institute.

AGENCY ISSUANCE

MORTGAGE INSURANCE ACTIVITY

FHA premiums rose significantly in the years following the housing crash, with annual premiums rising 170 percent from 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 bps cut in annual insurance premiums, making FHA mortgages more attractive than GSE mortgages for all borrowers. The April 2016 reduction in PMI rates for borrowers with higher FICO scores has partially offset that. As shown in the bottom table, a borrower putting 3.5 percent down will now find FHA more economical except for those with FICO scores of 740 or higher.

FHA MI Premiums for Typical Purchase Loan

Case number date	Upfront mortgage insurance premium (UFMIP) paid	Annual mortgage insurance premium (MIP)
1/1/2001 - 7/13/2008	150	50
7/14/2008 - 4/5/2010*	175	55
4/5/2010 - 10/3/2010	225	55
10/4/2010 - 4/17/2011	100	90
4/18/2011 - 4/8/2012	100	115
4/9/2012 - 6/10/2012	175	125
6/11/2012 - 3/31/2013[a]	175	125
4/1/2013 – 1/25/2015[b]	175	135
Beginning 1/26/2015[c]	175	85

Sources: Ginnie Mae and Urban Institute.
Note: A typical purchase loan has an LTV over 95 and a loan term longer than 15 years. Mortgage insurance premiums are listed in basis points.
* For a short period in 2008 the FHA used a risk based FICO/LTV matrix for MI.
[a] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 150 bps.
[b] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 155 bps.
[c] Applies to purchase loans less than or equal to $625,500. Those over that amount have an annual premium of 105 bps.

Initial Monthly Payment Comparison: FHA vs. PMI

Assumptions	
Property Value	$250,000
Loan Amount	$241,250
LTV	96.5
Base Rate	
Conforming	4.23%
FHA	4.11%

FICO	620 - 639	640 - 659	660 - 679	680 - 699	700 - 719	720 - 739	740 - 759	760 +
FHA MI Premiums								
FHA UFMIP	1.75	1.75	1.75	1.75	1.75	1.75	1.75	1.75
FHA MIP	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PMI								
GSE LLPA*	3.50	2.75	2.25	1.50	1.50	1.00	0.75	0.75
PMI Annual MIP	2.25	2.05	1.90	1.40	1.15	0.95	0.75	0.55
Monthly Payment								
FHA	$1,358	$1,358	$1,358	$1,358	$1,358	$1,358	$1,358	$1,358
PMI	$1,738	$1,675	$1,630	$1,508	$1,458	$1,403	$1,356	$1,316
PMI Advantage	($379)	($317)	($272)	($150)	($99)	($45)	$2	$43

Sources: Genworth Mortgage Insurance, Ginnie Mae and Urban Institute.
Note: Mortgage insurance premiums listed in percentage points. Grey shade indicates FHA monthly payment is more favorable, while light blue indicates PMI is more favorable. The PMI monthly payment calculation does not include special programs like Fannie Mae's HomeReady and Freddie Mac's Home Possible (HP), both offer more favorable rates for low- to moderate-income borrowers.
LLPA= Loan Level Price Adjustment, described in detail on page 21.

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Authors: Laurie Goodman
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A More Promising Road to GSE Reform: Access and Affordability
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Blog Posts

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Date: April 27, 2017

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Are gains in black homeownership history?
Authors: Laurie Goodman, Jun Zhu, Rolf Pendall
Date: February 14, 2017

Borrowers with less-than-perfect credit are giving up trying to get a mortgage
Authors: Laurie Goodman, Bing Bai, Bhargavi Ganesh
Date: February 10, 2017

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