HOUSING FINANCE POLICY CENTER

HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

July 2016

URBAN INSTITUTE · ELEVATE · THE · DEBATE

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

Developments in HUD and GSE NPL Sales

June 30th 2016 was a highly eventful day for nonperforming (NPL) loan sales at both HUD and the GSEs. HUD announced significant enhancements to its Distressed Asset Stabilization Program (DASP), addressing some of the key demands made of housing advocates. These changes include requiring investors to consider principal reduction as the first modification option, limiting interest rate increases to one percent per year after a five year fixed-rate period, a prohibition on walk-aways, greater opportunity for non-profit participation (by giving them the right to buy up to 5 percent of a national pool, as long as they meet HUD's reserve price), and better NPL data disclosures, among other changes.

On the same day the FHFA, for the first time, released new data on the performance of NPLs sold by Fannie Mae and Freddie Mac. Covering GSE NPL sales completed through June 30, 2015, this report showed that only 24 percent of the 8,849 NPLs sold were resolved as of December 31, 2015: 12 percent without foreclosure and 12 percent through a foreclosure. This reflects the newness of the program—the first GSE loan sale was done on August 1, 2014. More importantly, the FHFA compared the outcomes of these loans to comparable loans still owned by the GSEs and found that 21 percent of loans that have been with NPL servicers the longest (total 1,728 loans over 8 months) avoided foreclosure vs. only 14 percent for NPLs owned by the GSEs. In other words, loans sold through the NPL program have done better than comparable loans that were not sold.

Both these developments are highly welcome. In fact, several of the DASP changes announced by HUD were proposed by Urban Institute's Housing Finance Policy Center in a paper released earlier this year. The changes to the DASP program appear to strike a good balance that enhances borrower protection and increases the likelihood of positive outcomes without significantly increasing costs for taxpayers. The HFPC also commends the FHFA for releasing data on the GSE NPL Sales, and looks forward to the quarterly updates. This data will be instrumental in the housing research community's efforts to better analyze loan performance and suggest potential enhancements moving forward.

FHFA releases RFI concerning GSE front-end risk transfer

On June 29th, the FHFA released its much anticipated request for input (RFI) concerning an expansion of GSE credit risk transfer via front end structures. Front-end structures lay off the credit risk of single-family mortgages prior to or at the time the loan is acquired by a GSE, rather than after the loan is acquired, as in back-end risk transfers. HFPC researchers have previously discussed various front-end risk transfer mechanisms in detail and identified the pros and cons of each option. We also look forward to having the opportunity to comment on some of the specific issues raised by the RFI over the coming weeks.

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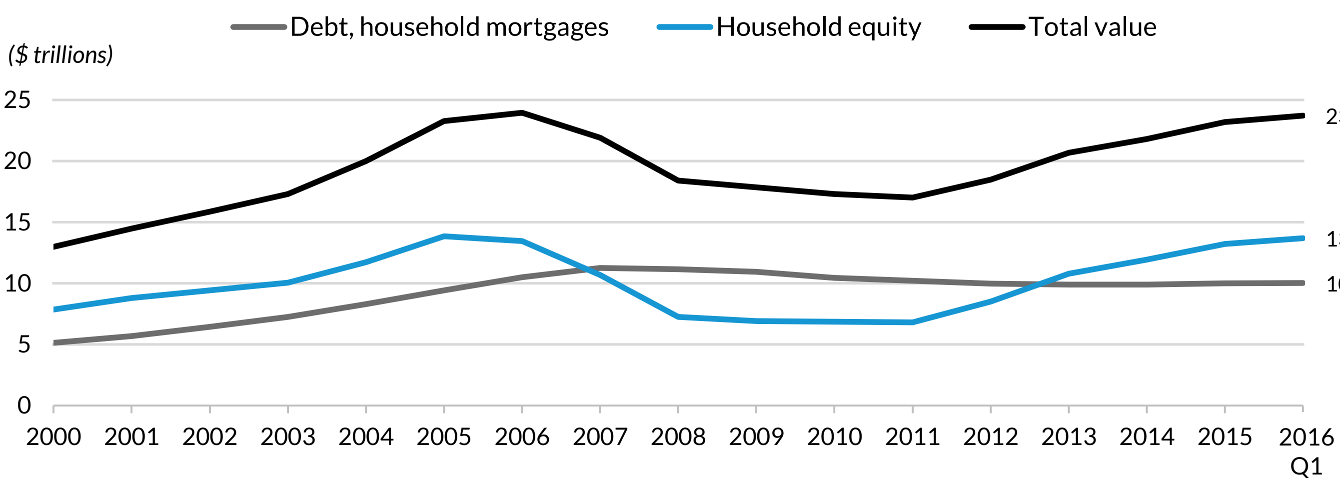
MARKET SIZE OVERVIEW

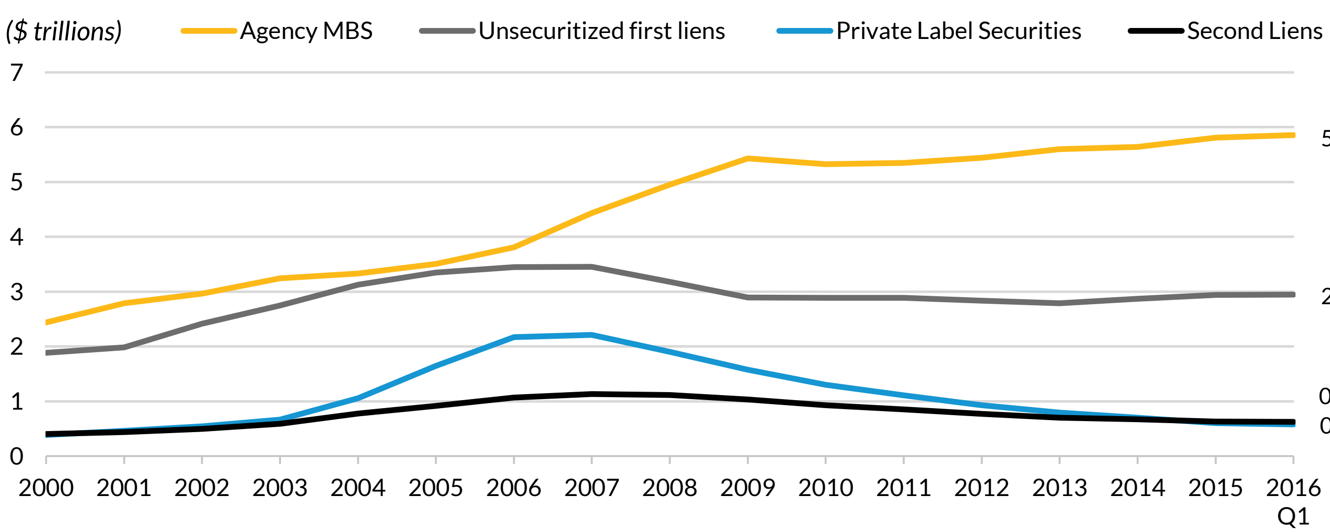
The Federal Reserve's Flow of Funds report has consistently indicated an increasing total value of the housing market driven by growing household equity since 2012, and the trend continued according to the latest data, covering Q1 2016. Total debt and mortgages increased slightly to $10.01 trillion, while household equity increased to $13.70 trillion. Agency MBS make up 58.5 percent of the total mortgage market, private-label securities make up 5.8 percent, and unsecuritized first liens at the GSEs, commercial banks, savings institutions, and credit unions make up 29.4 percent. Second liens comprise the remaining 6.2 percent of the total.

Value of the US Housing Market



Sources: Federal Reserve Flow of Funds and Urban Institute.

Size of the US Residential Mortgage Market

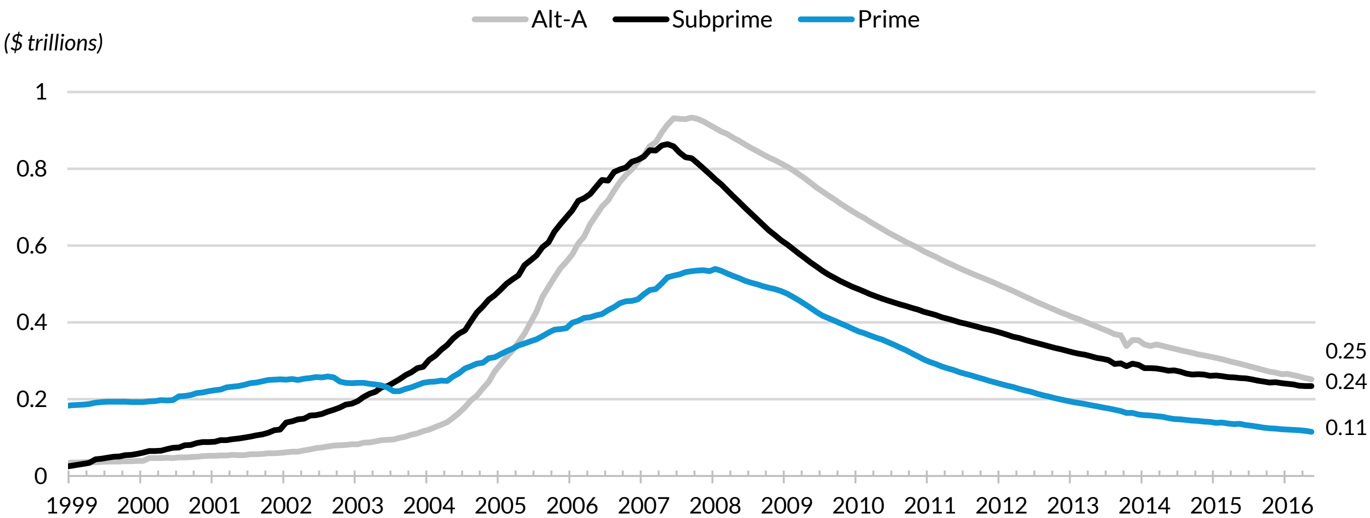


Sources: Federal Reserve Flow of Funds, Inside Mortgage Finance, Fannie Mae, Freddie Mac, eMBS and Urban Institute.
Note: Unsecuritized first liens includes loans held by commercial banks, GSEs, savings institutions, and credit unions.

MARKET SIZE OVERVIEW

As of May 2016, debt in the private-label securitization market totaled $600 billion and was split among prime (19.1 percent), Alt-A (41.9 percent), and subprime (38.9 percent) loans. In June 2016, outstanding securities in the agency market totaled $5.91 trillion and were 44.8 percent Fannie Mae, 27.5 percent Freddie Mac, and 27.7 percent Ginnie Mae. Ginnie Mae had more outstanding securities than Freddie for the second consecutive month.

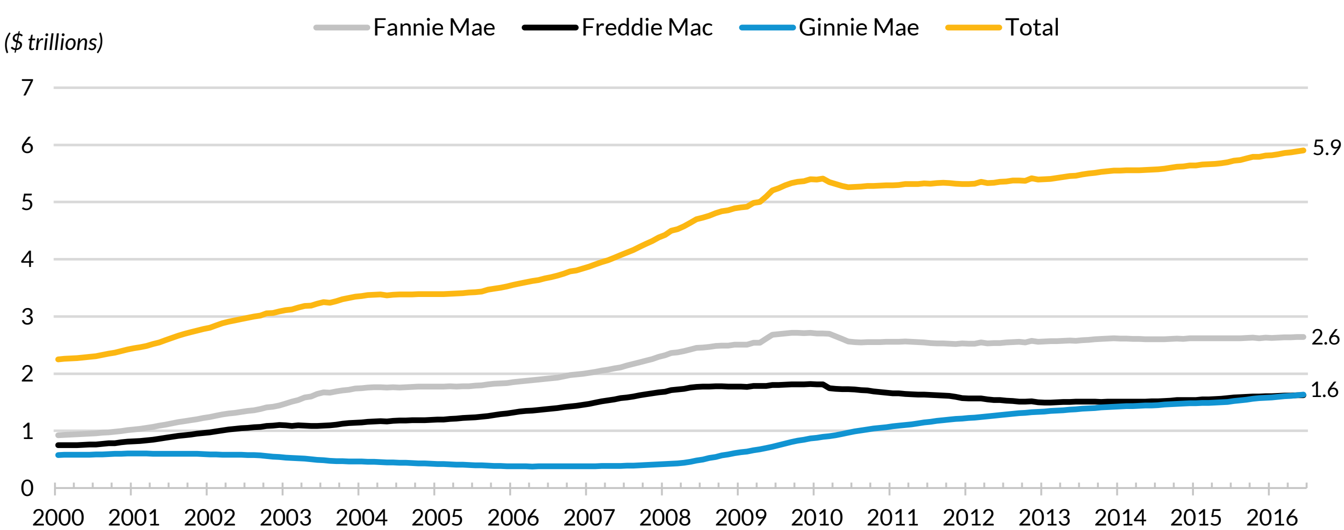
Private-Label Securities by Product Type



Sources: CoreLogic and Urban Institute.

May 2016

Agency Mortgage-Backed Securities



June 2016

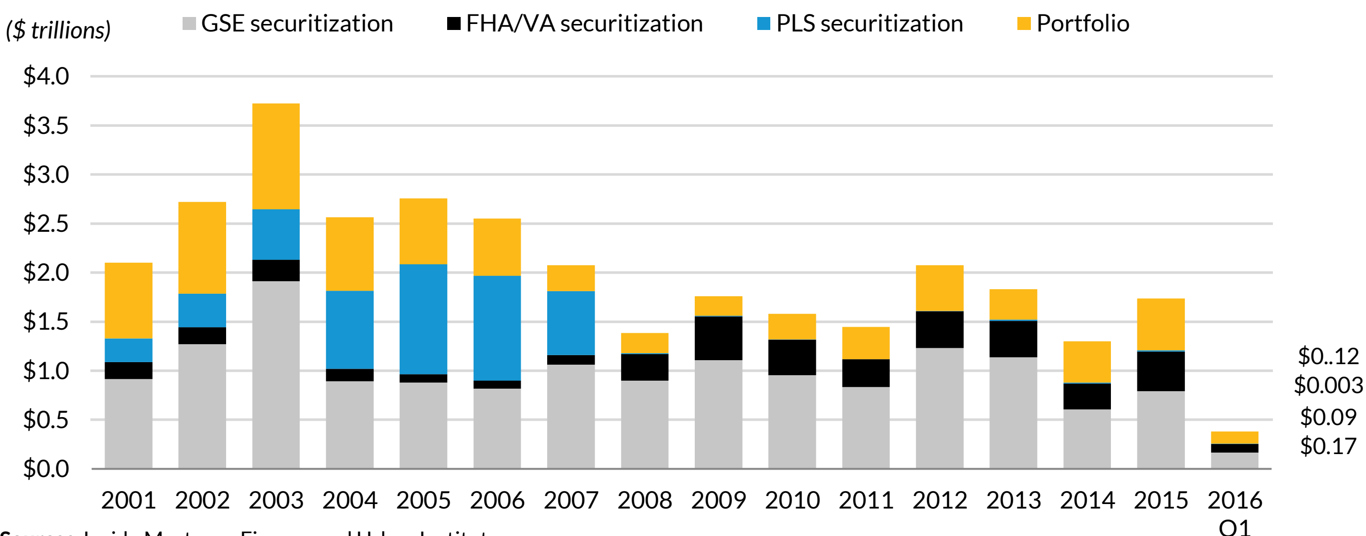
Sources: eMBS and Urban Institute.

OVERVIEW

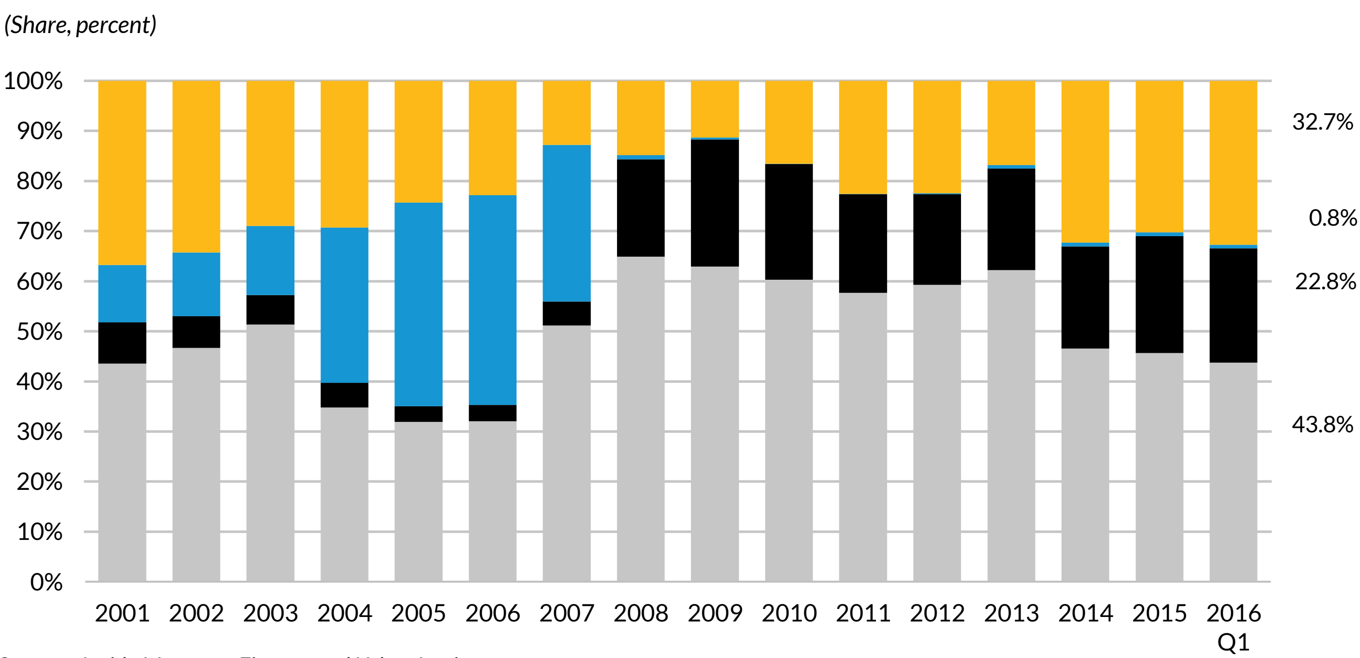
ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

First lien originations in the first quarter of 2016 totaled approximately $380 billion. The share of portfolio originations rose to 33 percent, while the GSE share dropped to 44 percent from 46 in 2015. With credit risk so benign, and g-fees relatively high, banks are willing to hold more of the risk. FHA/VA originations account for another 23 percent, and the private label originations account for 0.8 percent.



Sources: Inside Mortgage Finance and Urban Institute.



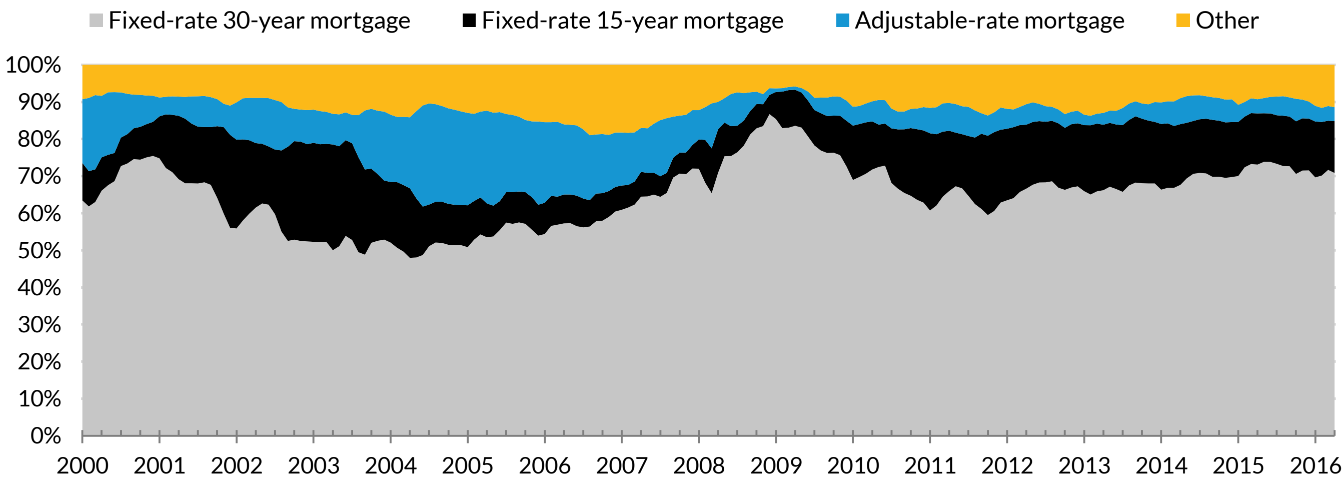
Sources: Inside Mortgage Finance and Urban Institute.

OVERVIEW

MORTGAGE ORIGINATION PRODUCT TYPE

Adjustable-rate mortgages (ARMs) accounted for as much as 27 percent of all new originations during the peak of the recent housing bubble in 2004 (top chart). They fell to a historic low of 1 percent in 2009, and then slowly grew to a high of 7.2 percent in May 2014. Since then they have declined again and were 3.8 percent of total originations in April 2016. 15-year fixed-rate mortgages (FRMs), predominantly a refinance product, comprise 14.0 percent of new originations. If we exclude refinances (bottom chart), the share of 30-year FRMs in April 2016 stood at 86.8 percent, 15-year FRMs at 4.7 percent, and ARMs at 3.2 percent.

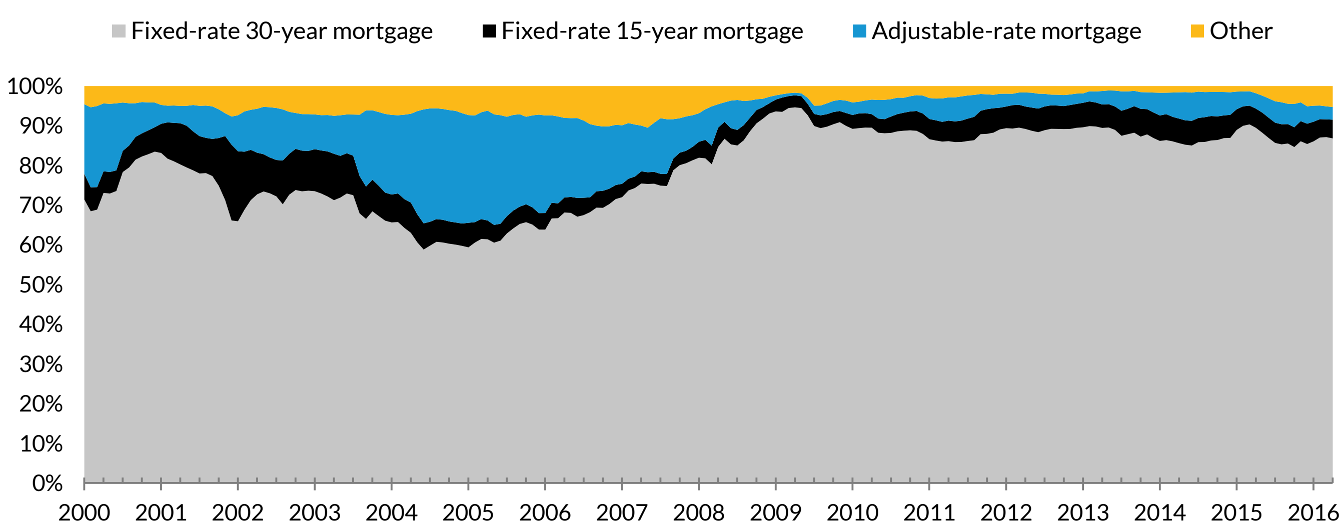
All Originations



Sources: CoreLogic Servicing and Urban Institute.

April 2016

Purchase Loans Only



Sources: CoreLogic Servicing and Urban Institute.

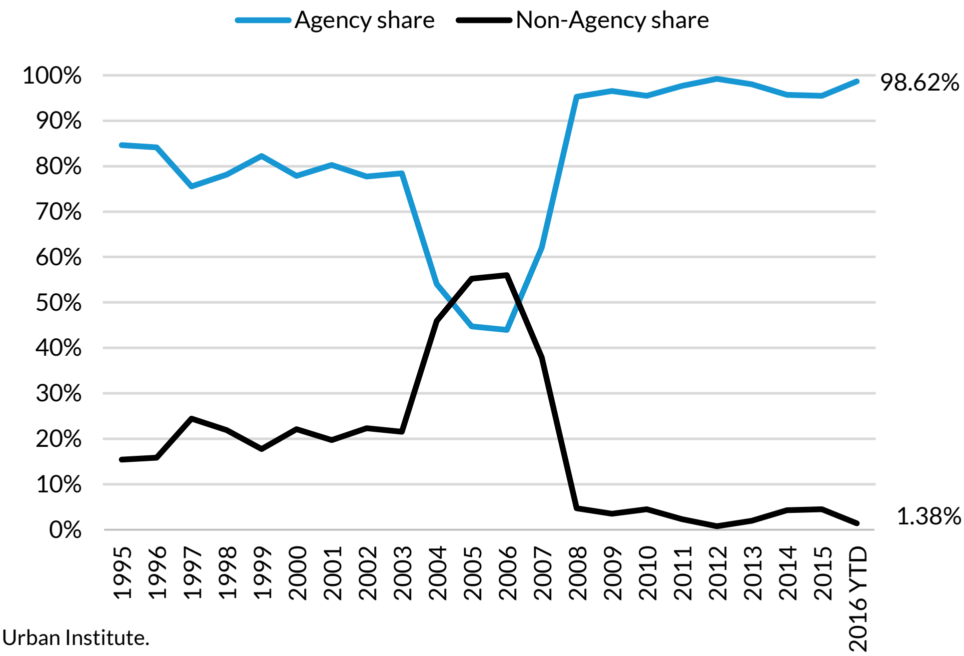
April 2016

OVERVIEW

SECURITIZATION VOLUME AND COMPOSITION

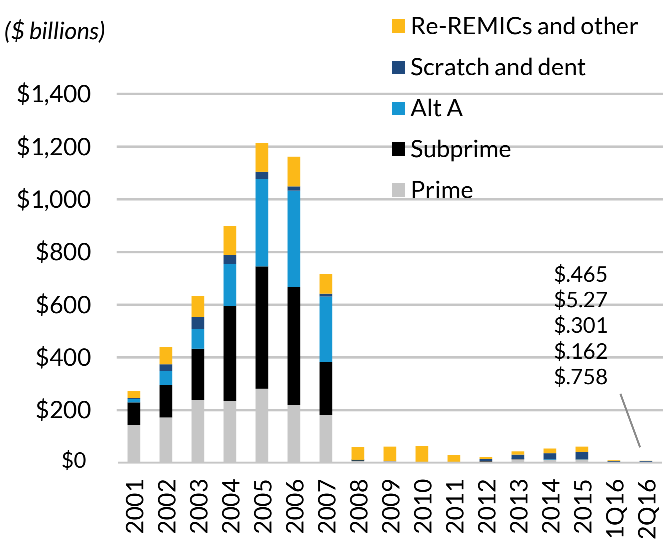
Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations in the first half of 2016 was 1.38%, compared to 4.5% in 2015 and 4.3% in 2014. Moreover, of the limited securitization that is getting done, the bulk of the volume is in non-performing and re-performing (scratch and dent) deals .The volume of prime securitizations in the second quarter of 2016 totaled $0.76 billion, representing a decline of $2.35 billion compared to the second quarter of 2015. However, both are tiny compared to pre-crises levels.



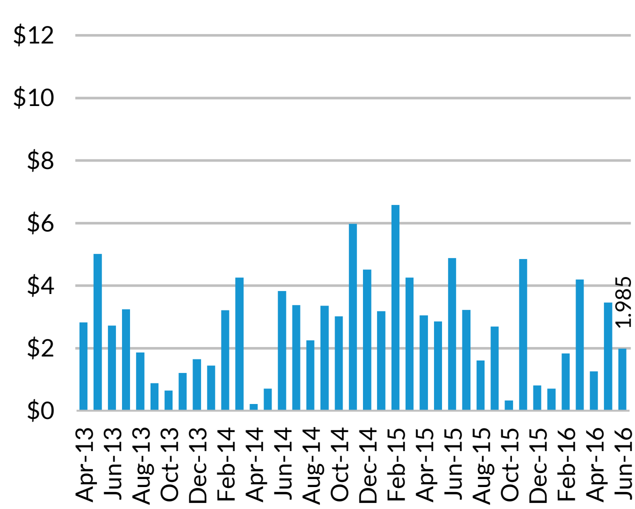
Sources: Inside Mortgage Finance and Urban Institute.
Note: Based on data from June 2016.

Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.

Monthly Non-Agency Securitization



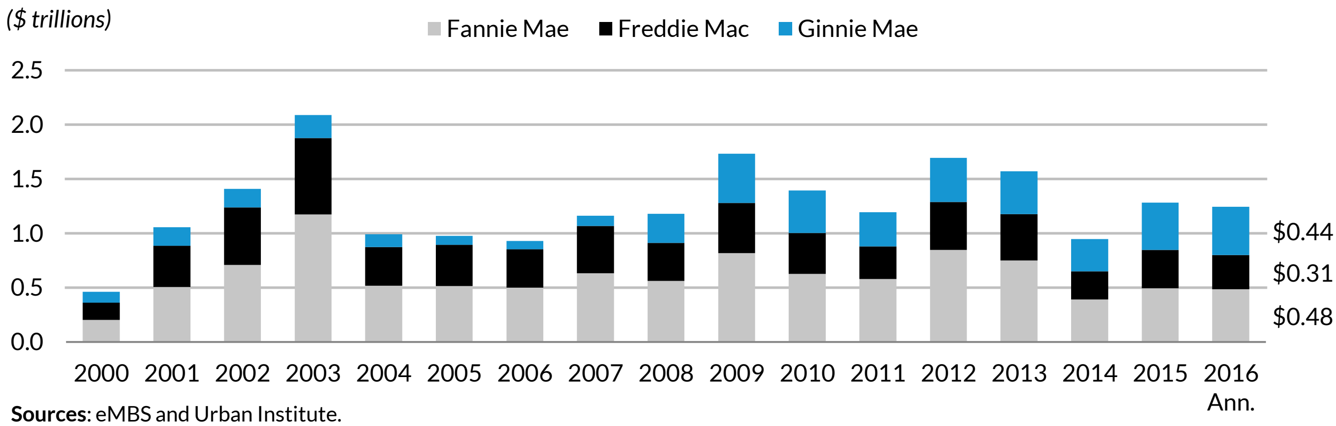
Sources: Inside Mortgage Finance and Urban Institute.
Note: Monthly figures equal total non-agency MBS issuance minus Re-REMIC issuance.

OVERVIEW

AGENCY ACTIVITY: VOLUMES AND PURCHASE/ REFI COMPOSITION

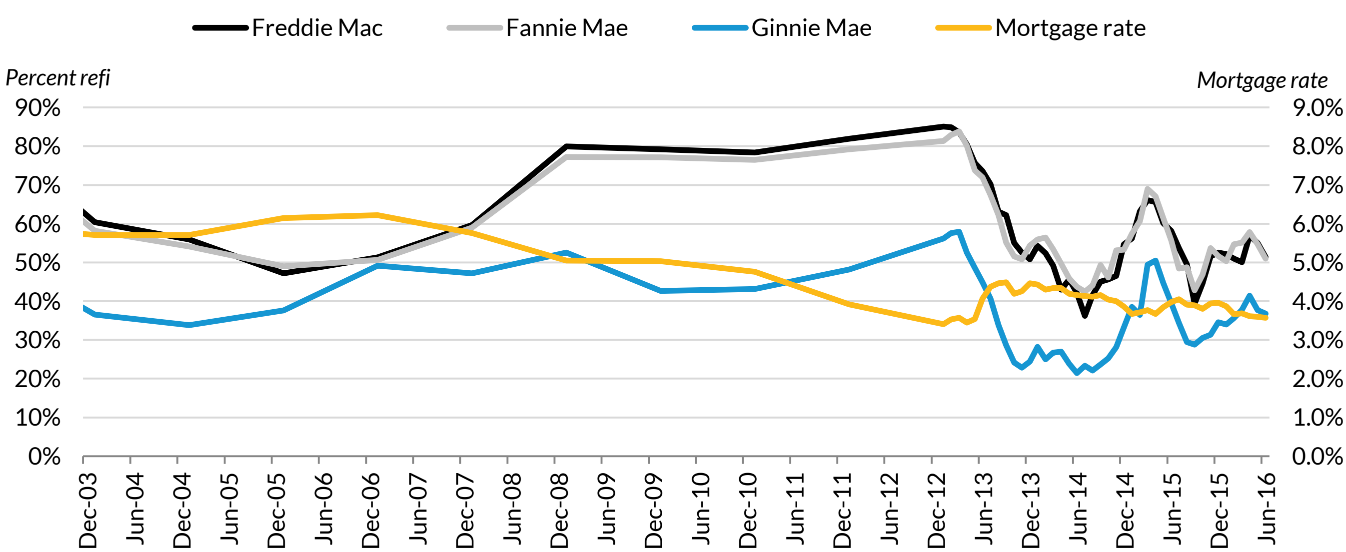
Agency issuance totaled $621.1 billion in the first half of 2016, slightly down from $636.0 billion for the same period a year ago. The refi share of origination for Fannie Mae, Freddie Mac and Ginnie Mae all declined slightly in June. These refi numbers reflect interest rates in April when these loans were originated. However, given the now lower interest rates post Brexit, we would expect refi volume to pick up in the months ahead.

Agency Gross Issuance



Sources: eMBS and Urban Institute.
Note: Annualized figure based on data from May 2016.

Percent Refi at Issuance



Sources: eMBS and Urban Institute.
Note: Based on at-issuance balance.

STATE OF THE MARKET

MORTGAGE ORIGINATION PROJECTIONS

Fannie Mae, Freddie Mac and MBA have all increased their predictions of origination volume for 2016. Fannie Mae and Freddie Mac anticipate a total of $1,748 billion and $1,825 of originations, respectively, while MBA predicts $1,741 billion. Freddie expects a marginally higher share of refis in 2016 than 2015, while the MBA and Fannie expect the refi share to be lower. Fannie, Freddie and MBA all forecast housing starts and new home sales to be substantially higher in 2016 than in 2015.

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
2016 Q1	339	385	350	47	55	47
2016 Q2	497	515	510	42	50	46
2016 Q3	500	490	518	41	48	42
2016 Q4	412	435	363	39	45	39
2017 Q1	333	390	295	45	38	34
2017Q2	428	420	380	32	35	26
2017Q3	419	380	390	30	30	24
2017 Q4	370	360	318	31	25	26
FY 2013	1866	1925	1845	60	59	60
FY 2014	1301	1350	1261	40	39	40
FY 2015	1711	1750	1630	46	48	46
FY 2016	1748	1825	1741	42	49	44
FY 2017	1550	1550	1383	34	32	27

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. Regarding interest rates, the yearly averages for 2013, 2014, and 2015 were 4.0%, 4.2% and 3.9%, respectively. For 2016, Fannie Mae, Freddie Mac, and MBA project rates of 3.6%, 3.6%, and 3.7%, respectively. For 2017, their respective projections are 3.5%, 4.0%, and 4.2%.

Housing Starts and Homes Sales

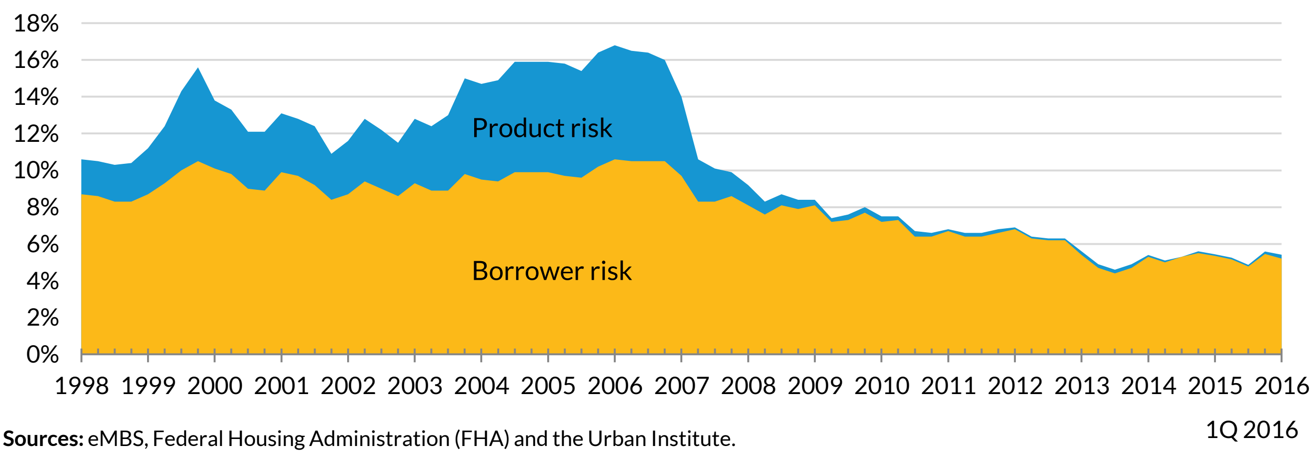
Year	Housing Starts, thousands			Home Sales. thousands				
	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Total, FNMA estimate	Total, FHLMC estimate	Total, MBA estimate	Existing, MBA estimate	New, MBA Estimate
FY 2013	925	920	930	5519	5520	5505	5073	432
FY 2014	1003	1000	1001	5377	5380	5360	4920	440
FY 2015	1112	1110	1108	5751	5750	5740	5237	503
FY 2016	1215	1260	1183	5980	5960	6069	5490	579
FY 2017	1355	1510	1265	6163	6160	6409	5759	650

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)

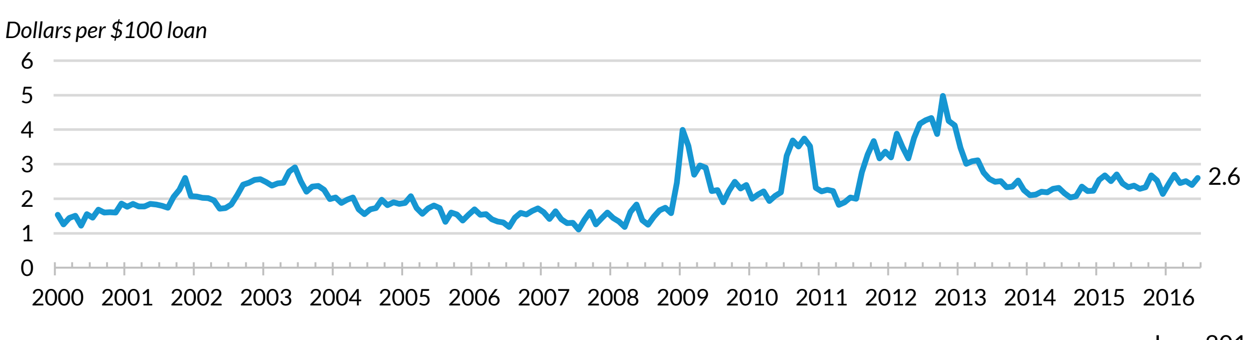
HFPC's Housing Credit Availability Index (HCAI) assesses lenders' tolerance for both borrower risk and product risk, calculating the percentage of owner-occupied purchase loans that are likely to default. The index shows that credit availability declined slightly to 5.4 percent in 2016 Q1, down from 5.6 percent in the previous quarter. The measure is less than half of the 2001-2003 standard of 12.5 percent. More information about HCAI including the breakdown by market segment is available here.



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

Originator Profitability and Unmeasured Costs

When originator profitability is high, mortgage rates tend to be less responsive to the general level of interest rates, as originators are capacity-constrained. The measure used here, Originator Profitability and Unmeasured Costs (OPUC), is formulated and calculated by the Federal Reserve Bank of New York. It looks at the price at which the originator actually sells the mortgage into the secondary market and adds the value of retained servicing (both base and excess servicing, net of g-fees) as well as points paid by the borrower. This measure was in the narrow range of 2.04 to 2.70 since 2014, and stood at 2.60 in June 2016.



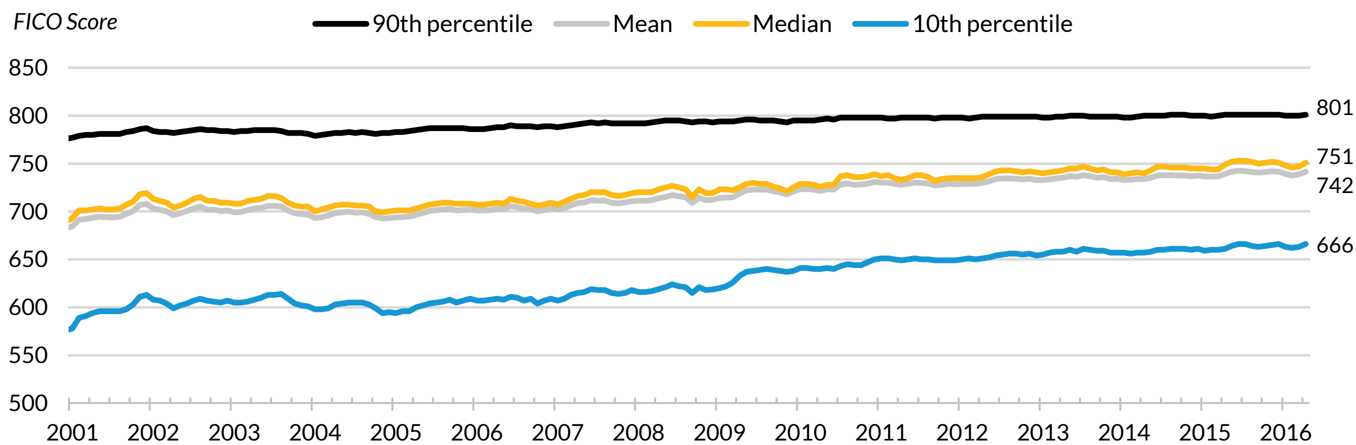
Sources: Federal Reserve Bank of New York, updated monthly and available at this link: http://www.ny.frb.org/research/epr/2013/1113fust.html and Urban Institute.
Note: OPUC stands for "originator profits and unmeasured costs" as discussed in Fuster et al. (2013). The OPUC series is a monthly (4-week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

STATE OF THE MARKET

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 39 and 42 points over the last decade. The 10th percentile of FICO scores, which represents the lower bound of creditworthiness needed to qualify for a mortgage, stood at 666 as of April 2016. Prior to the housing crisis, this threshold held steady in the low 600s. LTV levels at origination remain relatively high, averaging 86, which reflects the large number of FHA purchase originations.

Borrower FICO Score at Origination



Sources: CoreLogic Servicing and Urban Institute.
Note: Purchase-only loans.

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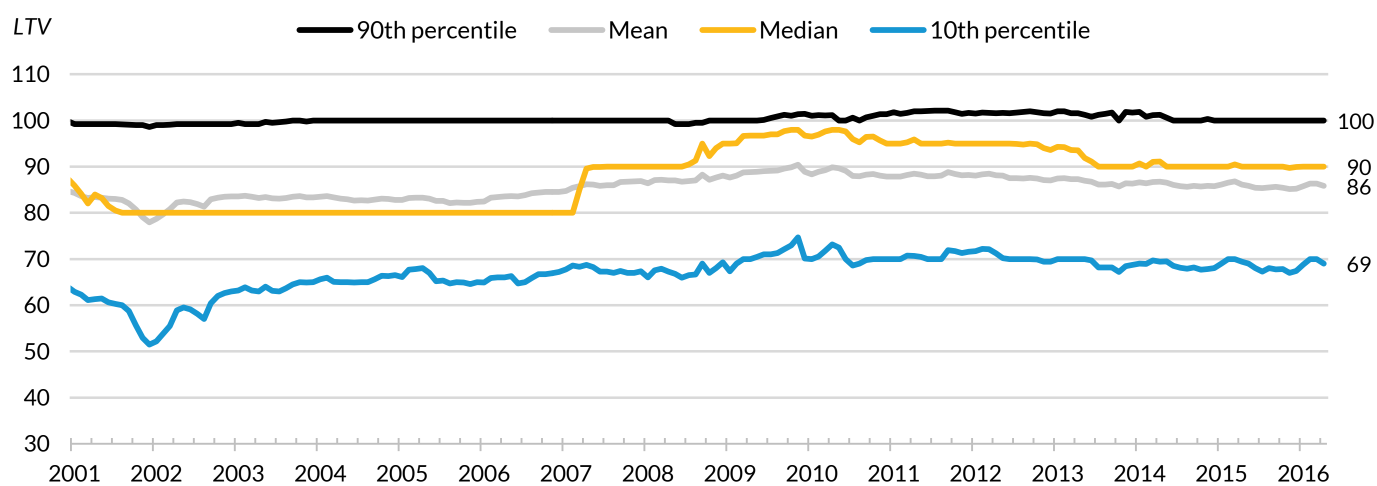
Combined LTV at Origination



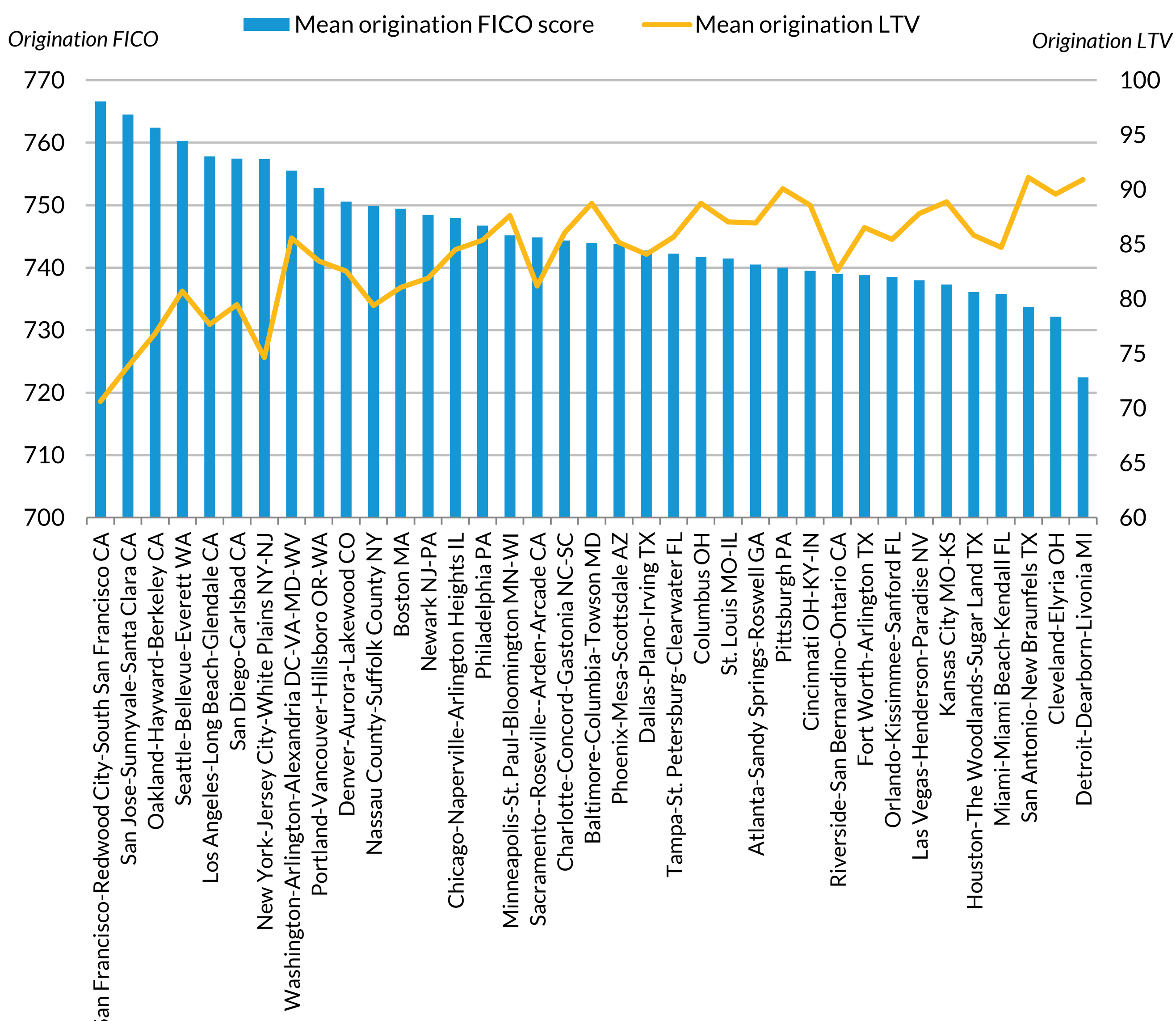
Sources: CoreLogic Servicing and Urban Institute.
Note: Purchase-only loans.

April 2016

CREDIT AVAILABILITY FOR PURCHASE LOANS

Credit has been tight for all borrowers with less-than-stellar credit scores, but there are significant variations across MSAs. For example, the mean origination FICO for borrowers in San Francisco- Redwood City- South San Francisco, CA is 766, while in Detroit-Dearborn-Livonia, MI it is 722. 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



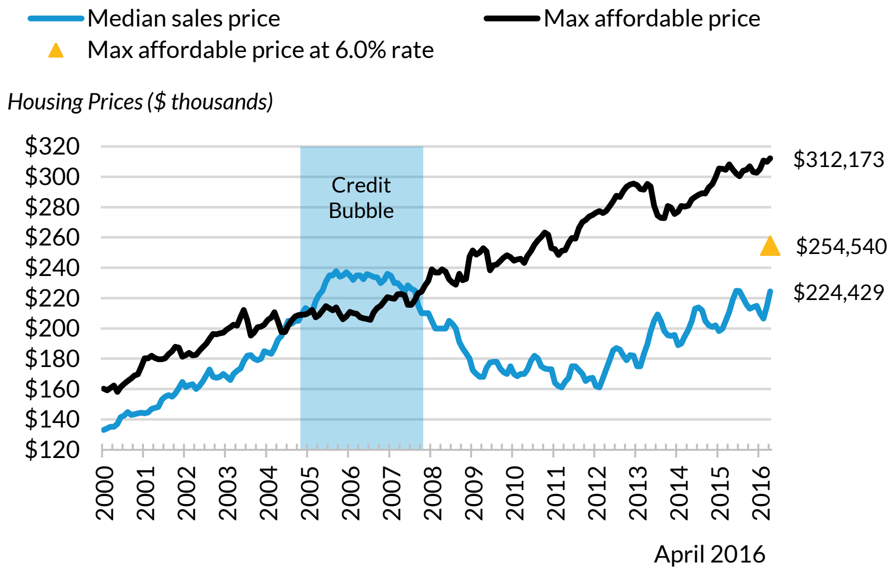
Sources: CoreLogic Servicing as of April 2016 and Urban Institute.
Note: Purchase-only loans.

HOUSING AFFORDABILITY

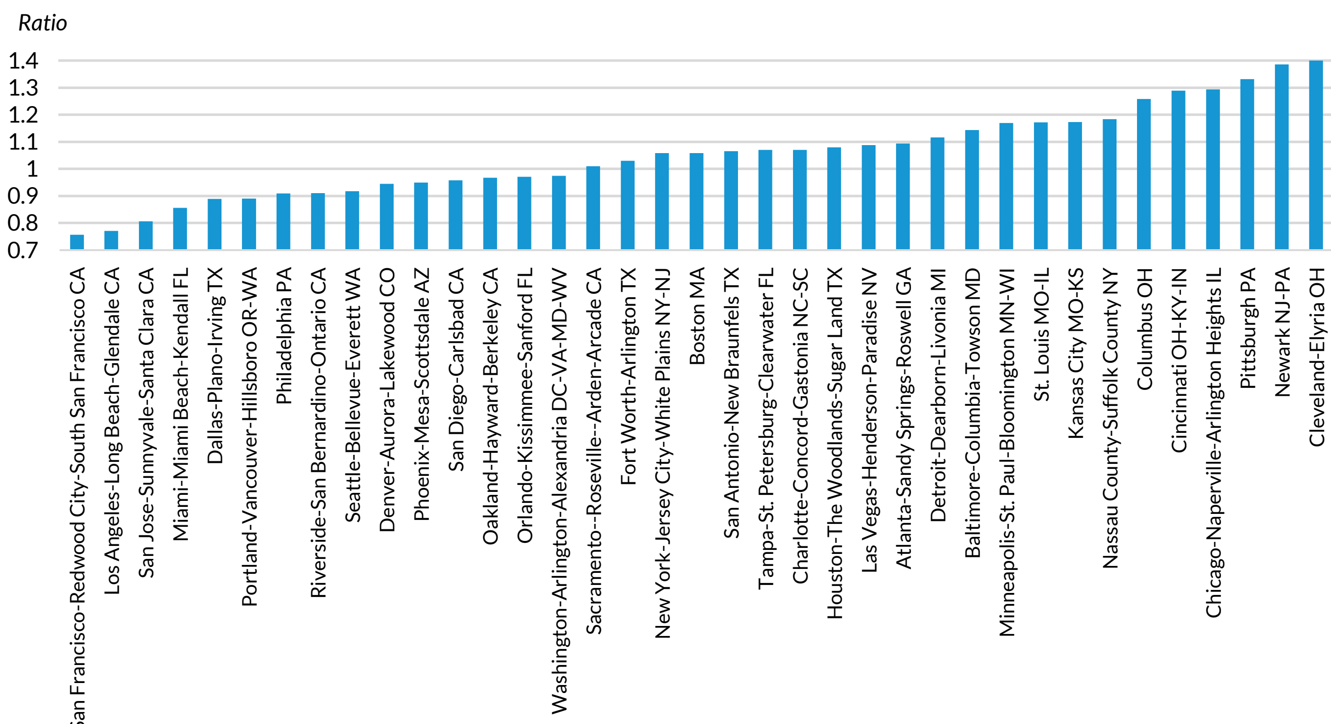
National Housing Affordability Over Time

Home prices are still very affordable by historical standards, despite increases over the last four years. Even if interest rates rose to 6 percent, affordability would 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



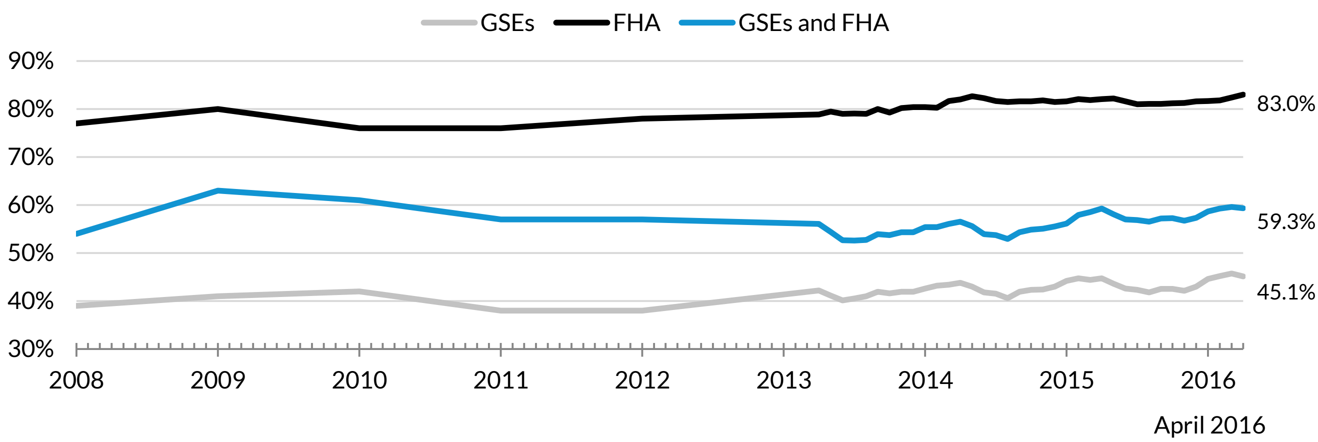
Sources: CoreLogic, US Census, Freddie Mac and Urban Institute calculations based on NAR methodology.
Note: Index is calculated relative to home prices in 2000-03. A ratio above 1 indicates higher affordability in April 2016 than in 2000-03.

STATE OF THE MARKET

FIRST-TIME HOMEBUYERS

First-Time Homebuyer Share

The first time homebuyer share of GSE purchase loans declined slightly in April 2016 to 45.1 percent, still high relative to the past few years. The FHA has always been more focused on first-time homebuyers. Its first-time homebuyer share, which traditionally hovers around 80 percent, rose to 83 percent in April 2016. The bottom table shows that based on mortgages originated in April 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.

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 ($)	225,450	248,333	187,654	214,340	206,782	240,595
Credit Score	741.12	755.08	679.63	686.46	710.78	739.46
LTV (%)	86.6	80	95.69	94.77	90.81	82.95
DTI (%)	33.41	34.46	40.53	41.44	36.92	36.04
Loan Rate (%)	3.94	3.83	3.87	3.8	3.9	3.82

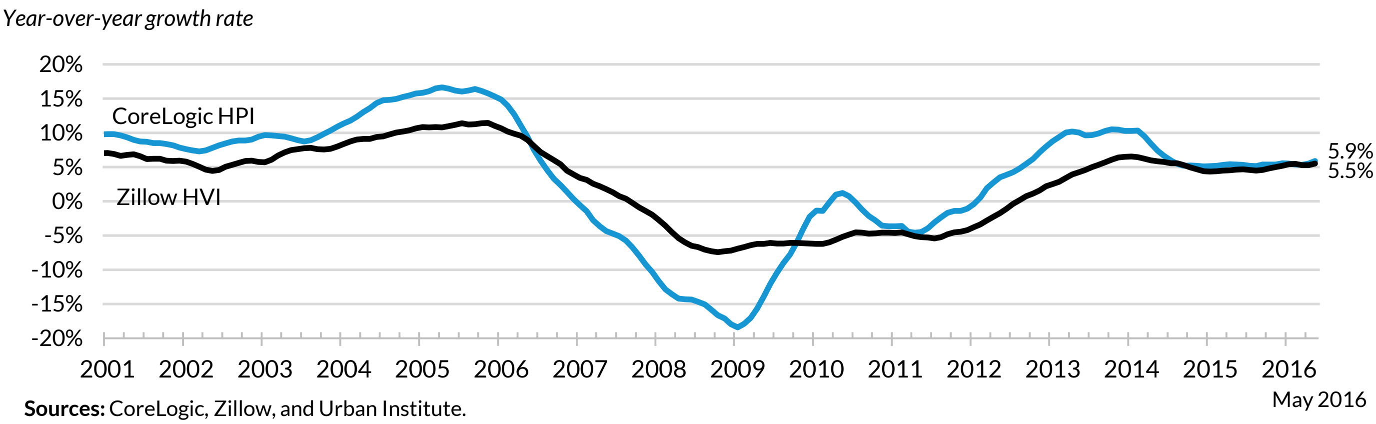
Sources: eMBS and Urban Institute.
Note: Based on owner-occupied purchase mortgages originated in April 2016.

STATE OF THE MARKET

HOME PRICE INDICES

National Year-Over-Year HPI Growth

While the strong year-over-year house 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.



Sources: CoreLogic, Zillow, and Urban Institute.

Changes in CoreLogic HPI for Top MSAs

Despite rising 40 percent from the trough, national house prices still must grow 7.8 percent to reach pre-crisis peak levels. At the MSA level, five of the top 15 MSAs have reached their peak HPI: New York, NY; 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 32 and 35 percent to return to peak levels, respectively.

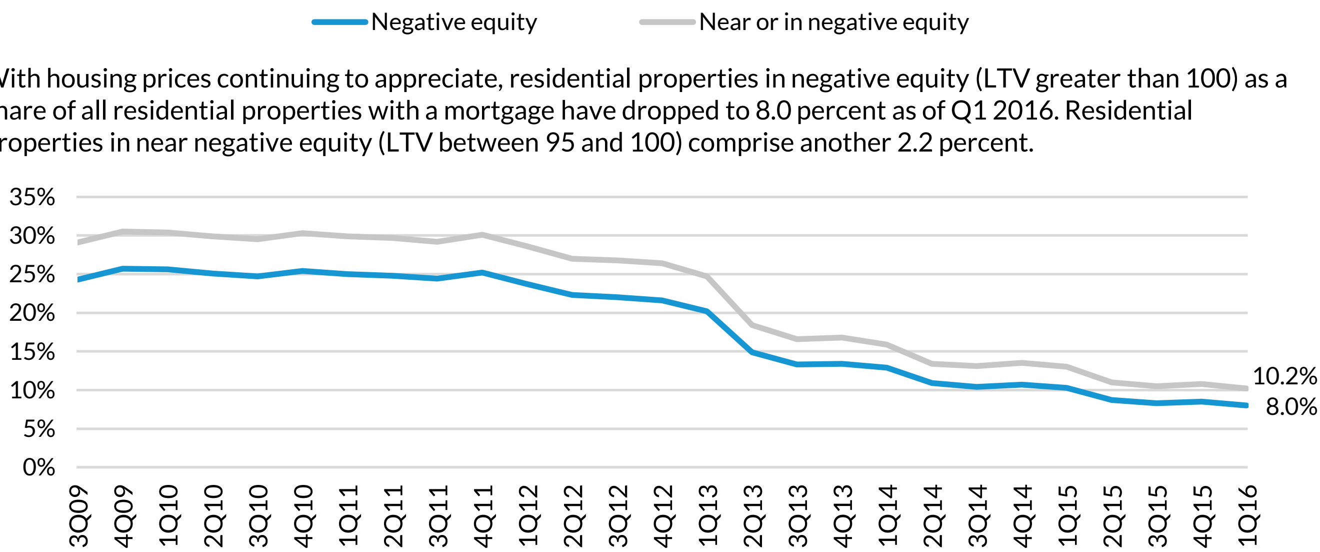
MSA	HPI changes (%)			% Rise needed to achieve peak
	2000 to peak	Peak to trough	Trough to current	
United States	93.7	-33.6	39.8	7.8
New York-Jersey City-White Plains NY-NJ	113.2	-16.4	24.8	-4.2
Los Angeles-Long Beach-Glendale CA	177.6	-38.7	55.7	4.7
Chicago-Naperville-Arlington Heights IL	66.1	-36.2	28.3	22.2
Atlanta-Sandy Springs-Roswell GA	37.9	-33.4	48.5	1.1
Washington-Arlington-Alexandria DC-VA-MD-WV	155.7	-34.4	31.9	15.6
Houston-The Woodlands-Sugar Land TX	39.6	-14.1	41.3	-17.7
Phoenix-Mesa-Scottsdale AZ	123.8	-52.9	60.3	32.4
Riverside-San Bernardino-Ontario CA	186.4	-52.9	57.6	34.6
Dallas-Plano-Irving TX	34.1	-14.0	45.5	-20.1
Minneapolis-St. Paul-Bloomington MN-WI	73.2	-30.6	33.4	8.0
Seattle-Bellevue-Everett WA	91.0	-29.4	55.0	-8.6
Denver-Aurora-Lakewood CO	35.6	-13.4	57.3	-26.6
Baltimore-Columbia-Towson MD	122.9	-24.6	9.8	20.7
San Diego-Carlsbad CA	145.1	-37.7	48.0	8.4
Anaheim-Santa Ana-Irvine CA	161.1	-35.9	45.1	7.4

Sources: CoreLogic HPIs as of May 2016 and Urban Institute.
Note: This table includes the largest 15 Metropolitan areas by mortgage count.

NEGATIVE EQUITY & SERIOUS DELINQUENCY

Negative Equity Share

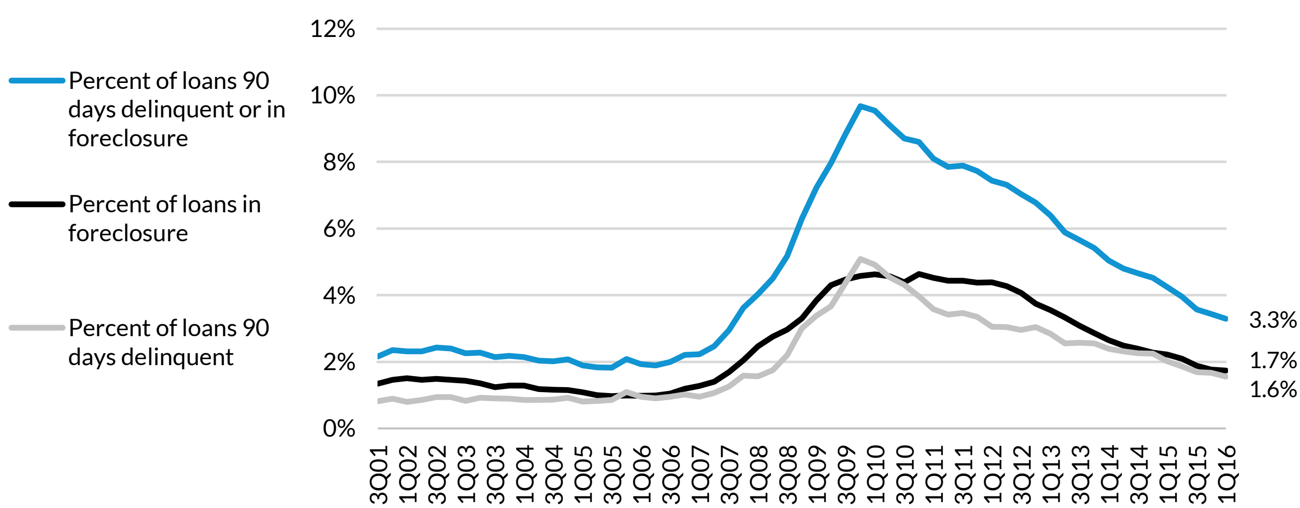
With housing prices continuing to appreciate, residential properties in negative equity (LTV greater than 100) as a share of all residential properties with a mortgage have dropped to 8.0 percent as of Q1 2016. Residential properties in near negative equity (LTV between 95 and 100) comprise another 2.2 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.

Loans in Serious Delinquency/Foreclosure

Serious delinquencies and foreclosures continue to decline with the housing recovery, but remain quite high relative to the early 2000s. Loans 90 days delinquent or in foreclosure totaled 3.3 % in the first quarter of 2016, down from 4.2% for the same quarter a year earlier.



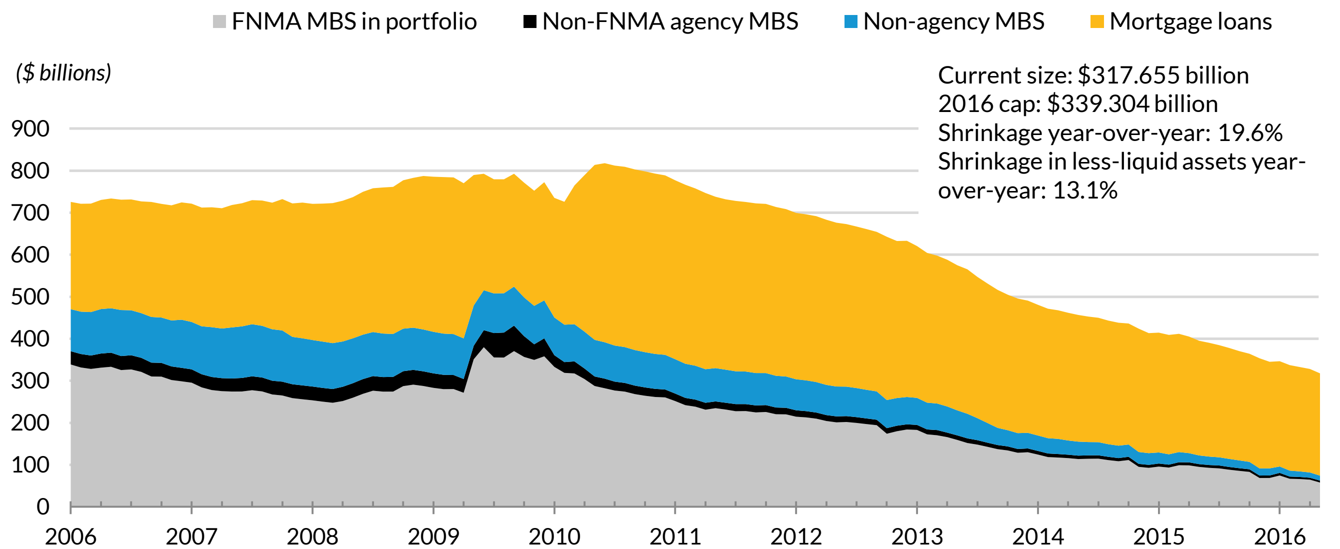
Sources: Mortgage Bankers Association and Urban Institute.

GSES UNDER CONSERVATORSHIP

GSE PORTFOLIO WIND-DOWN

Both GSEs continue to contract their portfolios; since May 2015, Fannie Mae contracted by 19.6 percent and Freddie Mac by 16.3 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. Even though it is early in the year, both GSEs are under their 2016 caps.

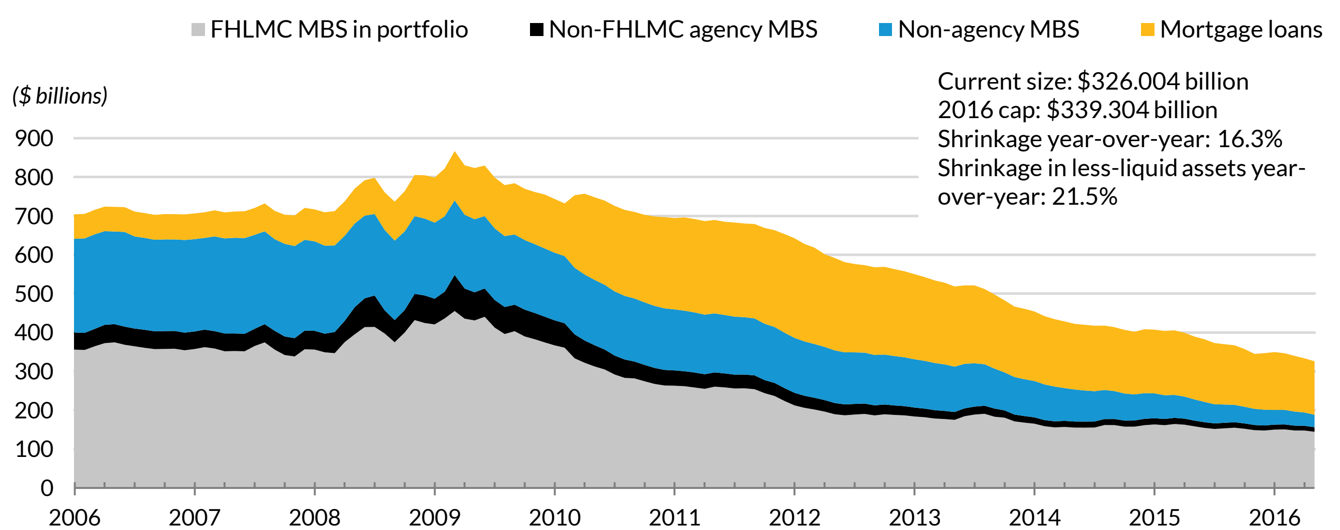
Fannie Mae Mortgage-Related Investment Portfolio Composition



Sources: Fannie Mae and Urban Institute.

May 2016

Freddie Mac Mortgage-Related Investment Portfolio Composition



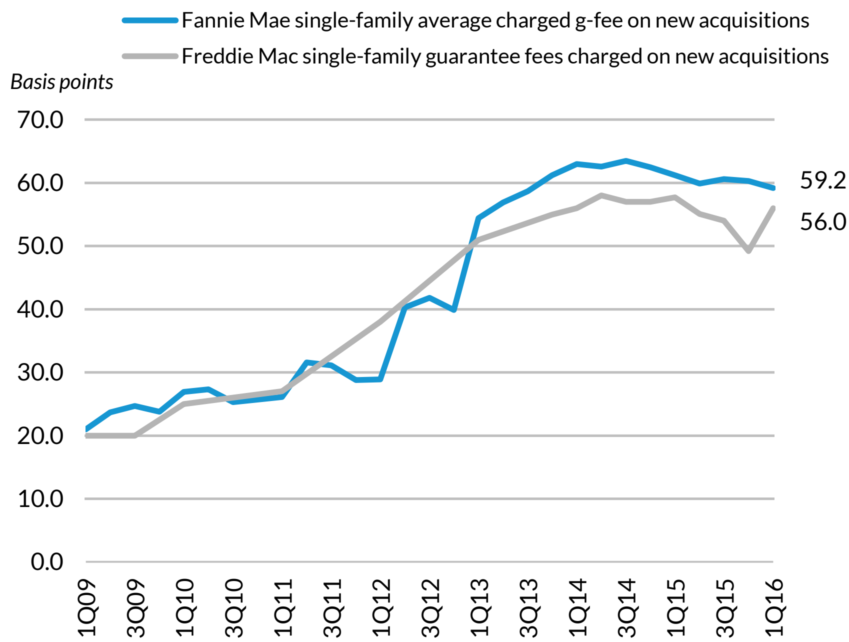
May 2016

Sources: Freddie Mac and Urban Institute.

EFFECTIVE GUARANTEE FEES

Guarantee Fees Charged on New Acquisitions

Fannie's average charged g-fee on new single-family originations fell slightly to 59.2 bps in Q1 2016, down from 61.2 bps in the same quarter last year. Freddie's fee stemmed 2015's decline and recovered to 56.0 in Q1 2016, the same level as Q1 2015. This is still a marked increase over 2012 and 2011, and has contributed to the GSEs' profits. Fannie's new Loan-Level Price Adjustments (LLPAs), effective September 2015, are shown in the second table. The Adverse Market Delivery Charge (AMDC) of 0.25 percent is eliminated, and LLPAs for some borrowers are slightly increased to compensate for the revenue lost from the AMDC. As a result, the new LLPAs have had a modest impact on GSE pricing.



Sources: Fannie Mae, Freddie Mae and Urban Institute.

Fannie Mae Upfront Loan-Level Price Adjustments (LLPAs)

Credit Score	LTV							
	≤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. FHFA's 2016 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 22.18% of its outstanding guarantees, while Freddie's STACR covers 30.88%.

Fannie Mae – Connecticut Avenue Securities (CAS)

Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
October 2013	CAS 2013 – C01	$26,756	$675	2.5%
January 2014	CAS 2014 – C01	$29,309	$750	2.6%
May 2014	CAS 2014 – C02	$60,818	$1,600	2.6%
July 2014	CAS 2014 – C03	$78,234	$2,050	2.6%
November 2014	CAS 2014 – C04	$58,873	$1,449	2.5%
February 2015	CAS 2015 – C01	$50,192	$1,469	2.9%
May 2015	CAS 2015 – C02	$45,009	$1,449	3.2%
June 2015	CAS 2015 – C03	$48,326	$1,100	2.3%
October 2015	CAS 2015 – C04	$43,599	$1,446	3.3%
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%
Total		**$626,867**	**$16,451**	**2.6%**
Percent of Fannie Mae's Total Book of Business		**22.18%**		

Freddie Mac – Structured Agency Credit Risk (STACR)

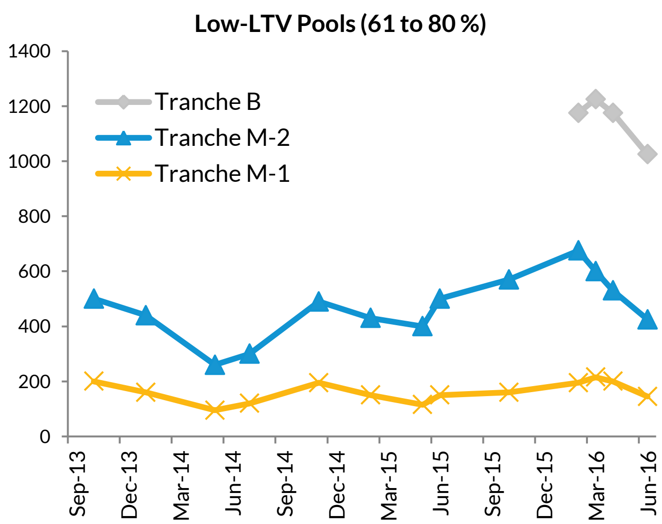
Date	*Transaction*	*Reference Pool Size ($ m)*	*Amount Issued ($m)*	*% of Reference Pool Covered*
July 2013	STACR Series 2013 – DN1	$22,584	$500	2.2%
November 2013	STACR Series 2013 – DN2	$35,327	$630	1.8%
February 2014	STACR Series 2014 – DN1	$32,077	$1,008	3.1%
April 2014	STACR Series 2014 – DN2	$28,147	$966	3.4%
August 2014	STACR Series 2014 – DN3	$19,746	$672	3.4%
August 2014	STACR Series 2014 – HQ1	$9,975	$460	4.6%
September 2014	STACR Series 2014 – HQ2	$33,434	$770	2.3%
October 2014	STACR Series 2014 – DN4	$15,741	$611	3.9%
October 2014	STACR Series 2014 – HQ3	$8,001	$429	5.4%
February 2015	STACR Series 2015 – DN1	$27,600	$880	3.2%
March 2015	STACR Series 2015 – HQ1	$16,552	$860	5.2%
April 2015	STACR Series 2015 – DNA1	$31,876	$1,010	3.2%
May 2015	STACR Series 2015 – HQ2	$30,325	$426	1.4%
June 2015	STACR Series 2015 – DNA2	$31,986	$950	3.0%
September 2015	STACR Series 2015 – HQA1	$19,377	$872	4.5%
November 2015	STACR Series 2015 – DNA3	$34,706	$1,070	3.1%
December 2015	STACR Series 2015 – HQA2	$17,100	$590	3.5%
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%
Total		**$543,573**	**$16,513**	**3.0%**
Percent of Freddie Mac's Total Book of Business		**30.88%**		

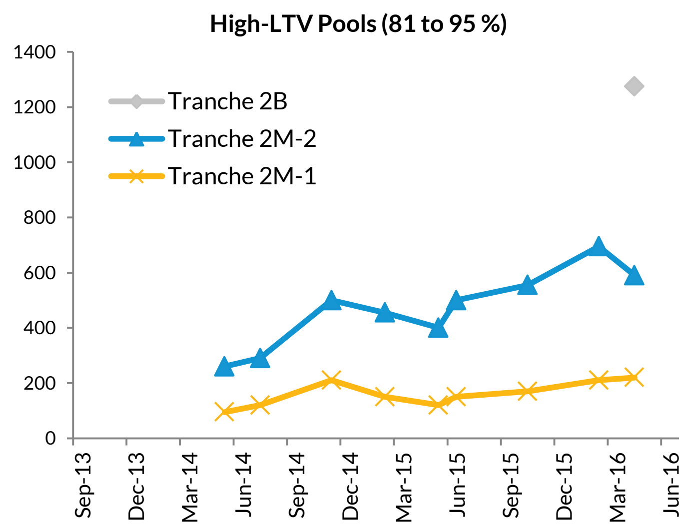
Sources: Fannie Mae, Freddie Mac and Urban Institute.
Note: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

GSES UNDER CONSERVATORSHIP
GSE RISK-SHARING SPREADS

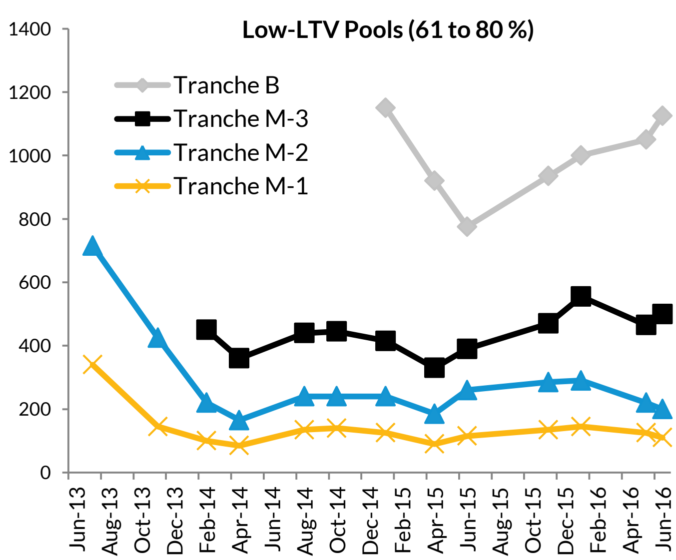
CAS and STACR spreads have moved around considerably since 2013, with the bottom mezzanine tranche and the first loss bonds experiencing considerably more volatility than the top mezzanine bonds (the M-1 in two tranche deals, the M-1 and M-2 in three tranche deals). Tranche B in particular has been highly 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.

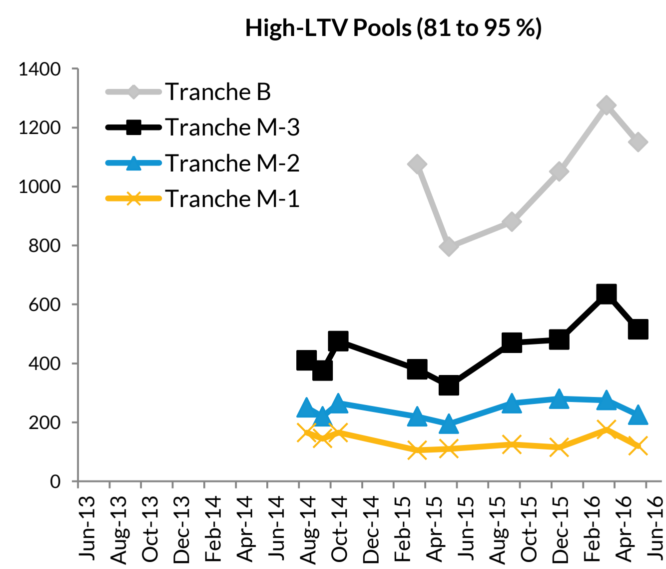
Fannie Mae CAS Spreads at-issuance (basis points over 1-month LIBOR)





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



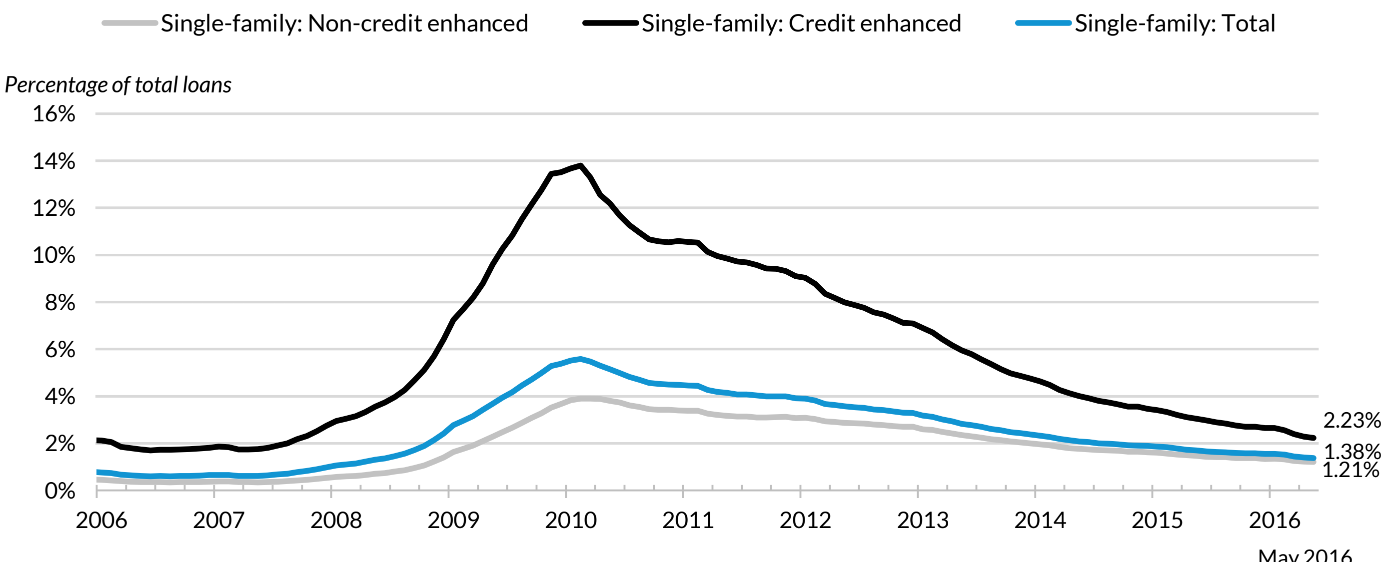


Sources: Fannie Mae, Freddie Mac Press Releases and Urban Institute.

GSES UNDER CONSERVATORSHIP
SERIOUS DELINQUENCY RATES

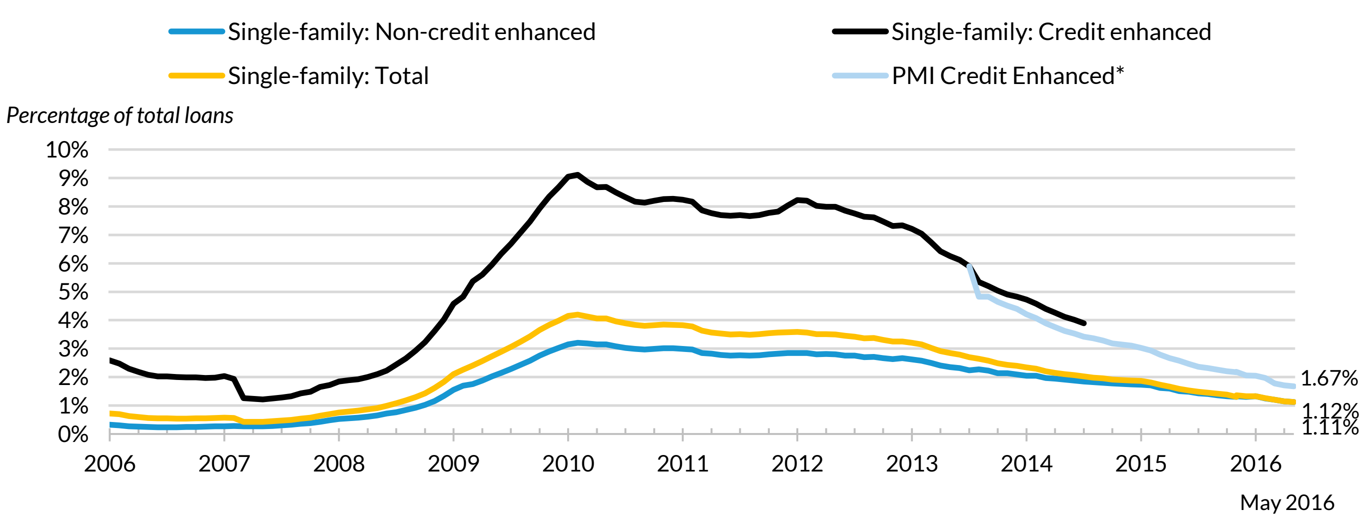
Serious delinquency rates of GSE loans continue to decline as the legacy portfolio is resolved and the pristine, post-2009 book of business exhibits very low default rates. As of May 2016, 1.38 percent of the Fannie portfolio and 1.12 percent of the Freddie portfolio were seriously delinquent, down from 1.70 percent for Fannie and 1.58 percent for Freddie in May 2015.

Serious Delinquency Rates–Fannie Mae



Sources: Fannie Mae and Urban Institute.

Serious Delinquency Rates–Freddie Mac



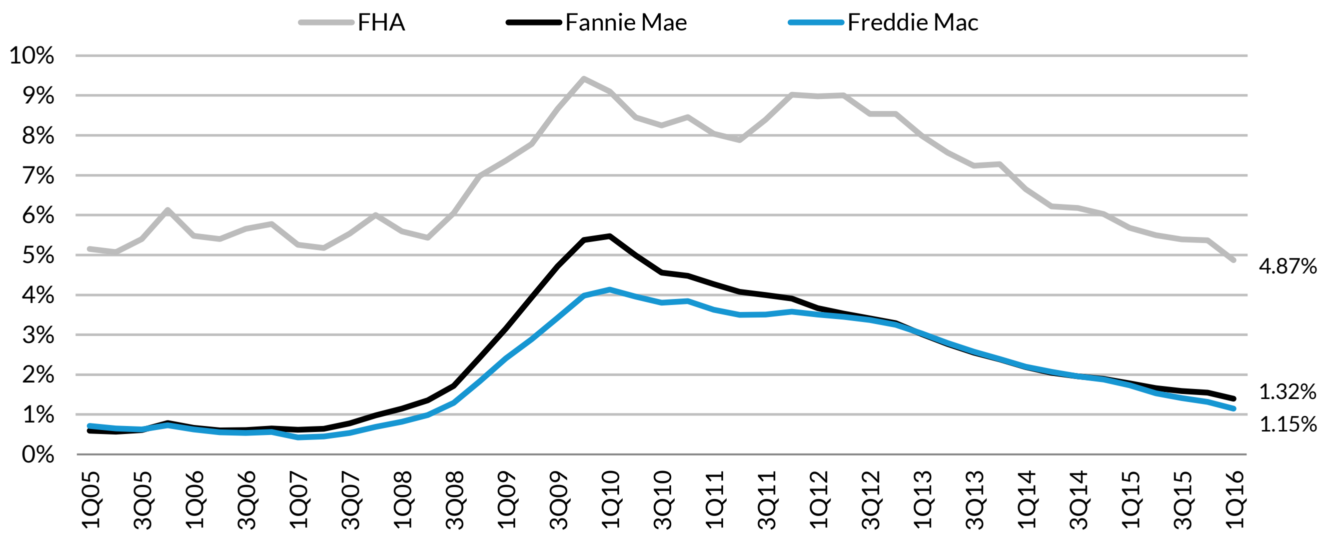
Sources: Freddie Mac and Urban Institute.
Note*: Following a change in Freddie reporting in September 2014, we switched from reporting credit enhanced delinquency rates to PMI credit enhanced delinquency rates.

GSES UNDER CONSERVATORSHIP

SERIOUS DELINQUENCY RATES

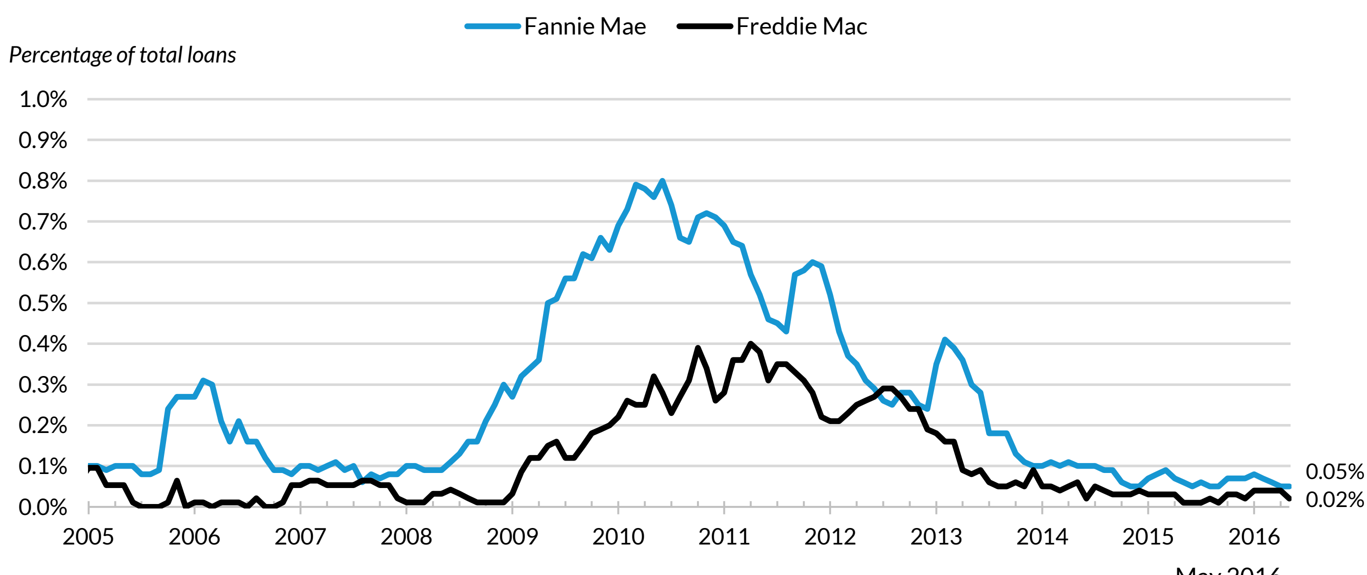
Serious delinquencies for FHA and GSE single-family loans continue to decline. GSE delinquencies remain higher relative to 2005-2007, while FHA delinquencies (which are much higher than their GSE counterparts) are now at levels similar to 2005-2007. GSE multifamily delinquencies have declined to pre-crisis levels, although they did not reach problematic levels even in the worst years.

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.

Serious Delinquency Rates–Multifamily GSE Loans

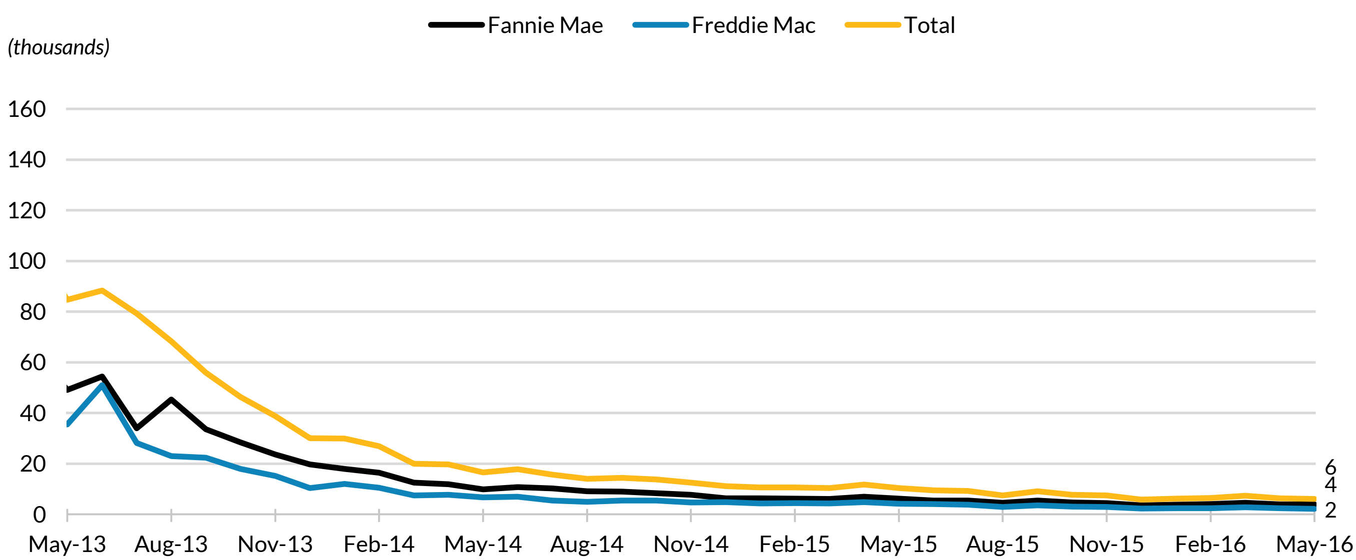


Sources: Fannie Mae, Freddie Mac and Urban Institute.
Note: Multifamily serious delinquency rate is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.

REFINANCE ACTIVITY

The Home Affordable Refinance Program (HARP) refinances have slowed considerably. Two factors are responsible for this: (1) higher interest rates, leaving fewer eligible loans where refinancing is economically advantageous (in-the-money), and (2) a considerable number of borrowers who have already refinanced. Since the program's Q2 2009 inception, HARP refinances total 3.4 million, accounting for 15 percent of all GSE refinances in this period.

Total HARP Refinance Volume



Sources: FHFA Refinance Report and Urban Institute.

HARP Refinances

	March 2016	Year-to-date 2016	Inception to date	2015	2014	2013
Total refinances	173,217	770,902	23,264,875	2,084,936	1,536,788	4,081,911
Total HARP refinances	6,091	32,425	3,412,982	110,109	212,488	892,914
Share 80–105 LTV	80.3%	78.4%	70.2%	76.5%	72.5%	56.4%
Share 105–125 LTV	13.2%	14.7%	17.2%	15.6%	17.2%	22.4%
Share >125 LTV	6.4%	6.9%	12.6%	8.0%	10.3%	21.2%
All other streamlined refinances	13,882	68,945	3,808,435	218,244	268,026	735,210

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 338,483 eligible loans, but 42 percent are out-of-the-money because the closing cost would exceed the long-term savings, leaving 196,031 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 5,156,693 loans in this category, 4,380,142 are in-the-money.

More than 75 percent of the GSE book of business that meets the pay history requirements was originated after the June, 2009 cutoff date. FHFA Director Mel Watt announced in May 2014 that they are not planning to extend the cutoff date. On May 8, 2015 Director Watt extended the deadline for the HARP program for an additional year, until the end of 2016.

Total loan count	27,075,740
Loans that do not meet pay history requirement	1,252,873
Loans that meet pay history requirement:	25,822,867
Pre-June 2009 origination	5,572,800
Post-June 2009 origination	20,250,066

Loans Meeting HARP Pay History Requirements

Pre-June 2009			
LTV category	*In-the-money*	*Out-of-the-money*	*Total*
≤80	4,380,142	776,550	5,156,693
>80	196,031	142,452	338,483
Total	4,576,173	919,002	5,495,176
Post-June 2009			
LTV category	*In-the-money*	*Out-of-the-money*	*Total*
≤80	5,940,696	11,884,100	17,824,796
>80	1,086,586	1,412,237	2,498,823
Total	7,027,282	13,296,336	20,323,618

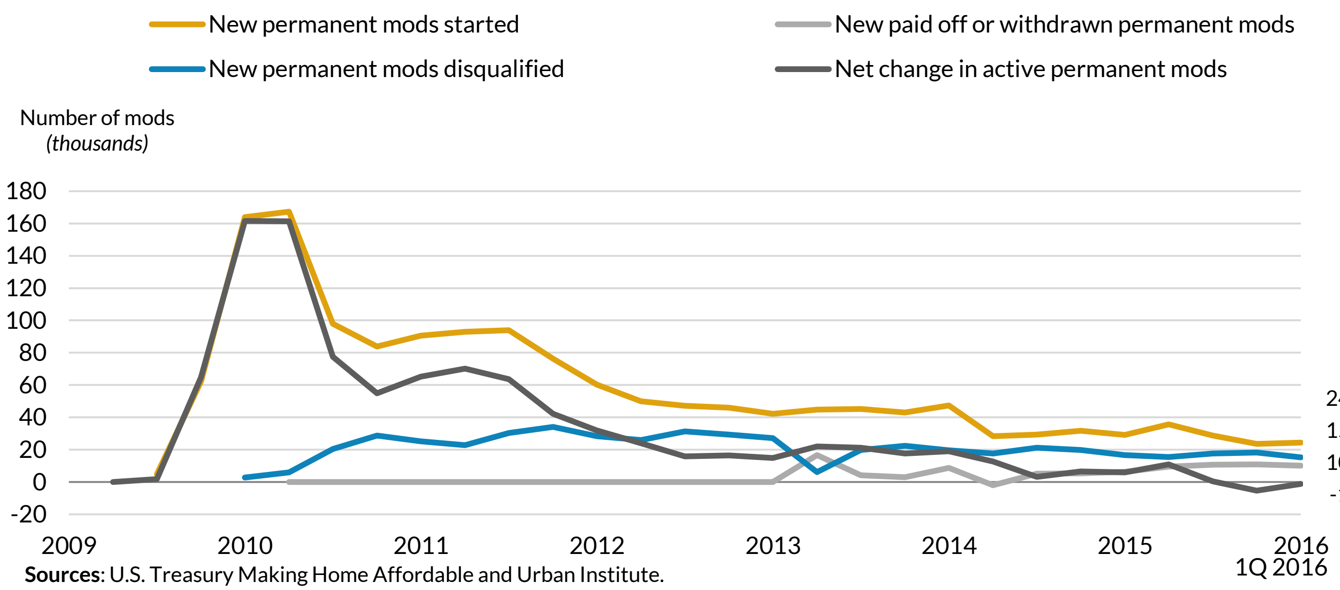
Sources: CoreLogic Prime Servicing as of May 2016 and Urban Institute.
Note: Figures are scaled up from source data to account for data coverage of the GSE active loan market (based on MBS data from eMBS). Shaded box indicates HARP-eligible loans that are in-the-money.

MODIFICATION ACTIVITY

HAMP ACTIVITY

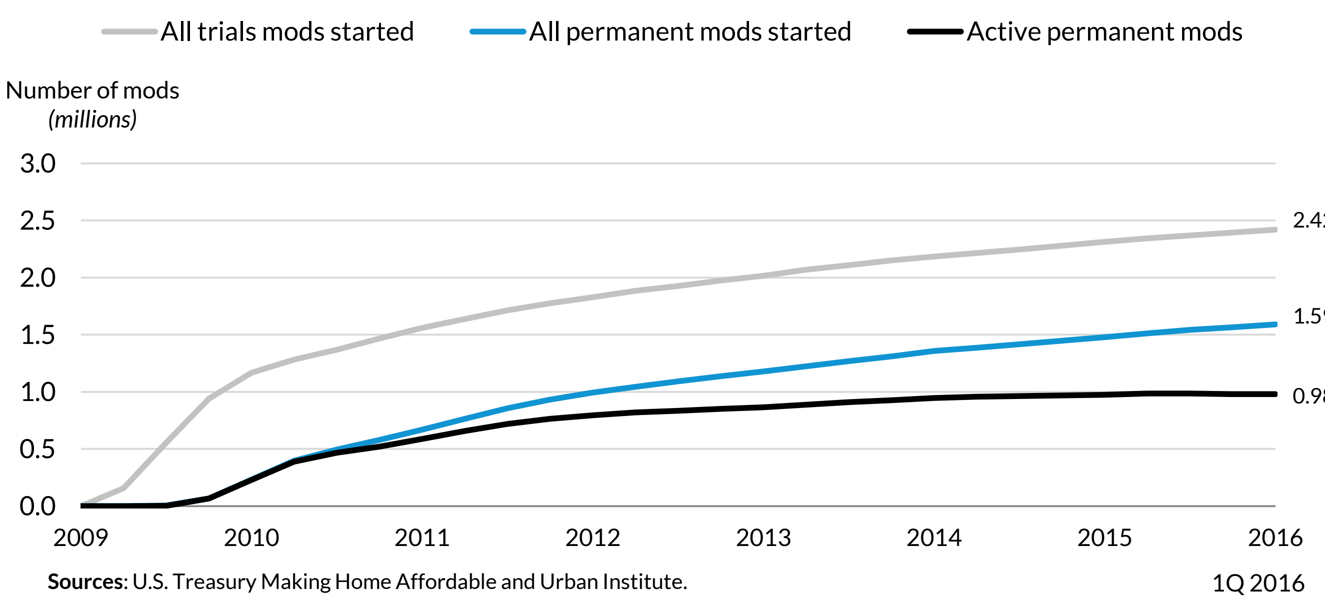
In Q1 2016, the number of active permanent modifications fell by another 1,157 mortgages, after its first ever decline of 5,408 mortgages last quarter. There are two factors behind this change: Fewer new permanent modifications were made, and more active modifications became inactive because 1) borrowers pay off or withdraw their modifications and 2) modifications fail and then become disqualified. As a result, active permanent mods declined to 0.98 million.

New HAMP Modications



Sources: U.S. Treasury Making Home Affordable and Urban Institute.

Cumulative HAMP Modifications

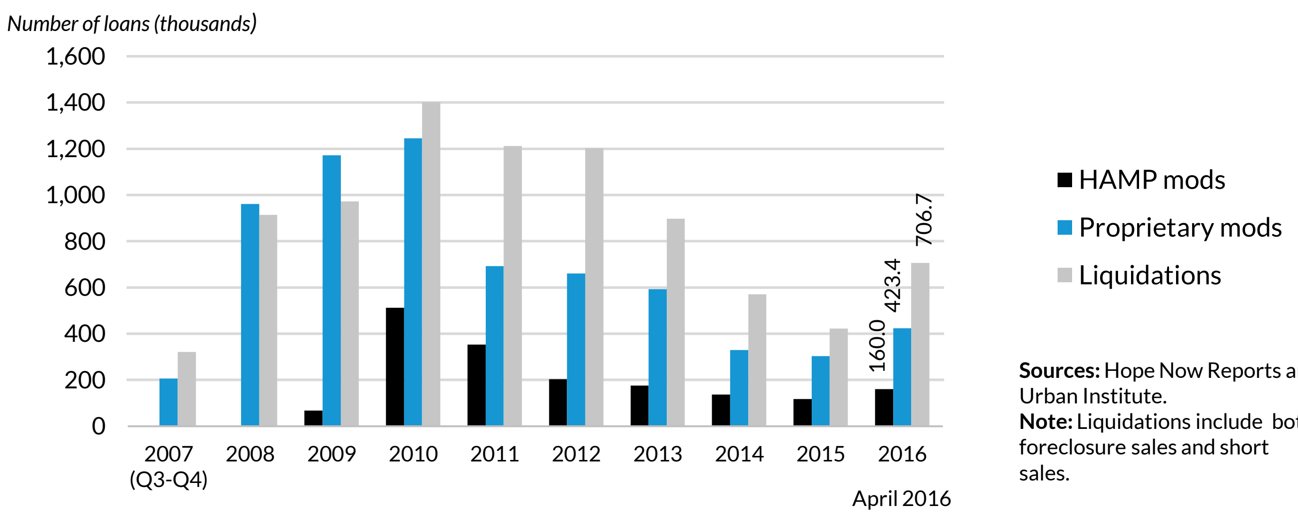


Sources: U.S. Treasury Making Home Affordable and Urban Institute.

MODIFICATIONS AND LIQUIDATIONS

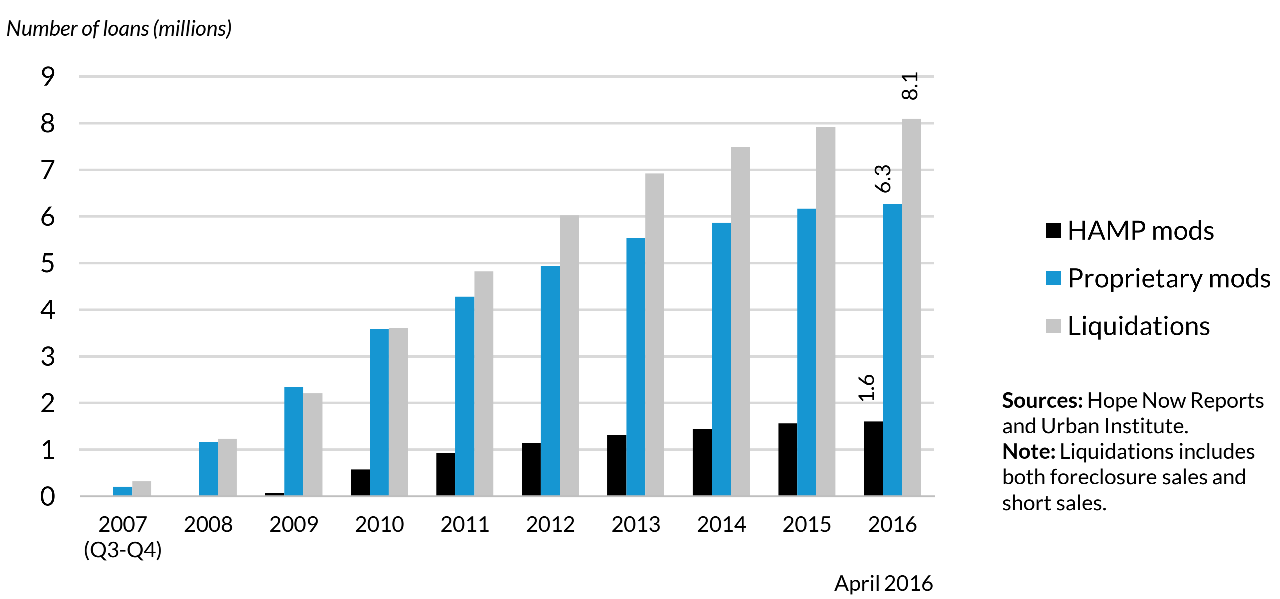
Total modifications (HAMP and proprietary) are now roughly equal to total liquidations. Hope Now reports show 7,876,304 borrowers have received a modification since Q3 2007, compared with 8,092,439 liquidations in the same period. Modification activity slowed significantly in 2014 and has continued to do so, averaging 29,171 in the first five months of 2016. Liquidations have also continued to decline, averaging 35,335 per month in the first five months of 2016 compared to 38,887 per month in the same period a year ago.

Loan Modifications and Liquidations



Sources: Hope Now Reports and Urban Institute.
Note: Liquidations include both foreclosure sales and short sales.

Cumulative Modifications and Liquidations



Sources: Hope Now Reports and Urban Institute.
Note: Liquidations includes both foreclosure sales and short sales.

AGENCY ISSUANCE

AGENCY GROSS AND NET ISSUANCE

The agency gross issuance totaled $621.1 billion in the first half of 2016, a slight 2.3 percent decrease year-over-year. Net issuance (which excludes repayments, prepayments, and refinances on outstanding mortgages) remains low.

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 YTD	$399.69	$221.45	$621.14
%Change year-over-year	-7.8%	9.3%	-2.3%
2016 Ann.	$799.38	$442.90	$1,242.28

Agency Net Issuance

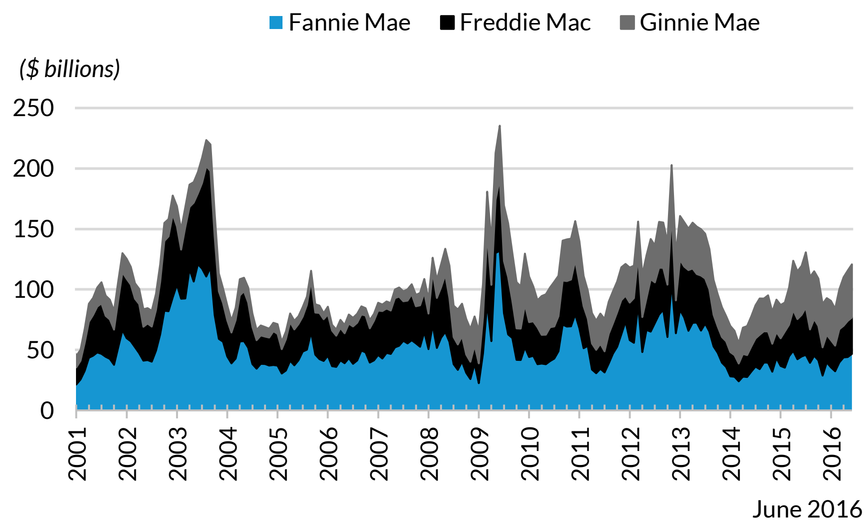
Issuance Year	GSEs	Ginnie Mae	Total
2000	$159.8	$29.3	$189.1
2001	$367.8	-$9.9	$357.9
2002	$357.6	-$51.2	$306.4
2003	$335.0	-$77.6	$257.4
2004	$83.3	-$40.1	$43.2
2005	$174.4	-$42.2	$132.1
2006	$313.6	$0.3	$313.8
2007	$514.7	$30.9	$545.5
2008	$314.3	$196.4	$510.7
2009	$249.5	$257.4	$506.8
2010	-$305.5	$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 YTD	$35.4	$56.7	$92.2
%Change year-over-year	15.58%	135.99%	68.50%
2016 Ann.	$70.9	$113.5	$184.4

Sources: eMBS and Urban Institute.
Note: Dollar amounts are in billions. Annualized figure based on data from June 2016.

AGENCY GROSS ISSUANCE & FED PURCHASES

Monthly Gross Issuance

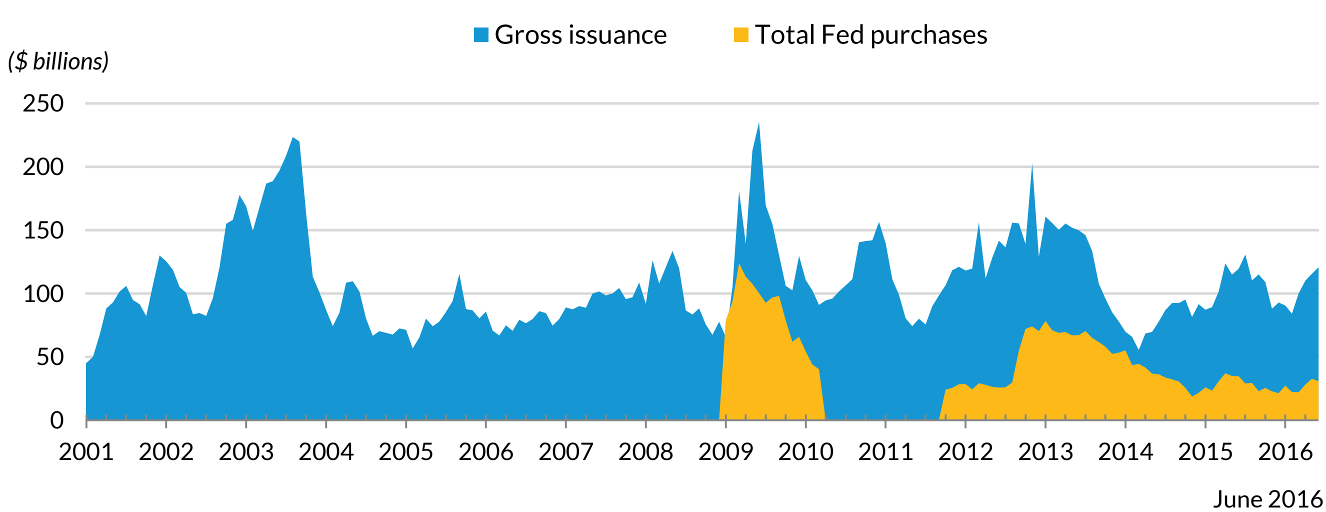
While government and GSE lending have dominated the mortgage market since the crisis, there has been a change in the mix. The Ginnie Mae share reached a peak of 28 percent of total agency issuance in 2010, declined to 25 percent in 2013, and has bounced back sharply since then. The Ginnie Mae issuance stood at 36 percent in June 2016, as the FHA refinance activity surged with the reduction in the FHA insurance premium.



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 June 2016, total Fed purchase edged down to $31 billion, yielding Fed absorption of gross issuance of 26 percent, down from 28 percent last month.

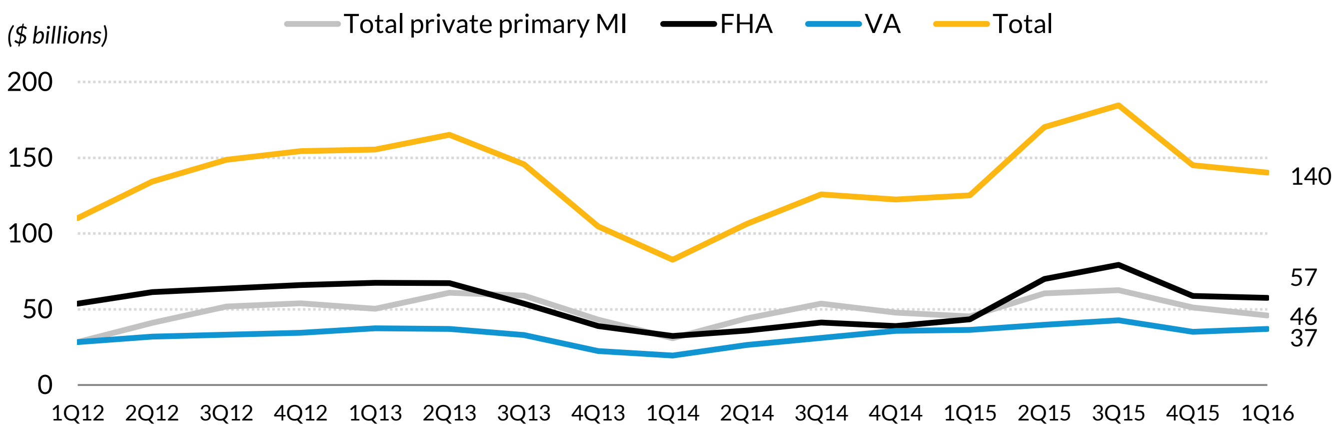


Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

MORTGAGE INSURANCE ACTIVITY

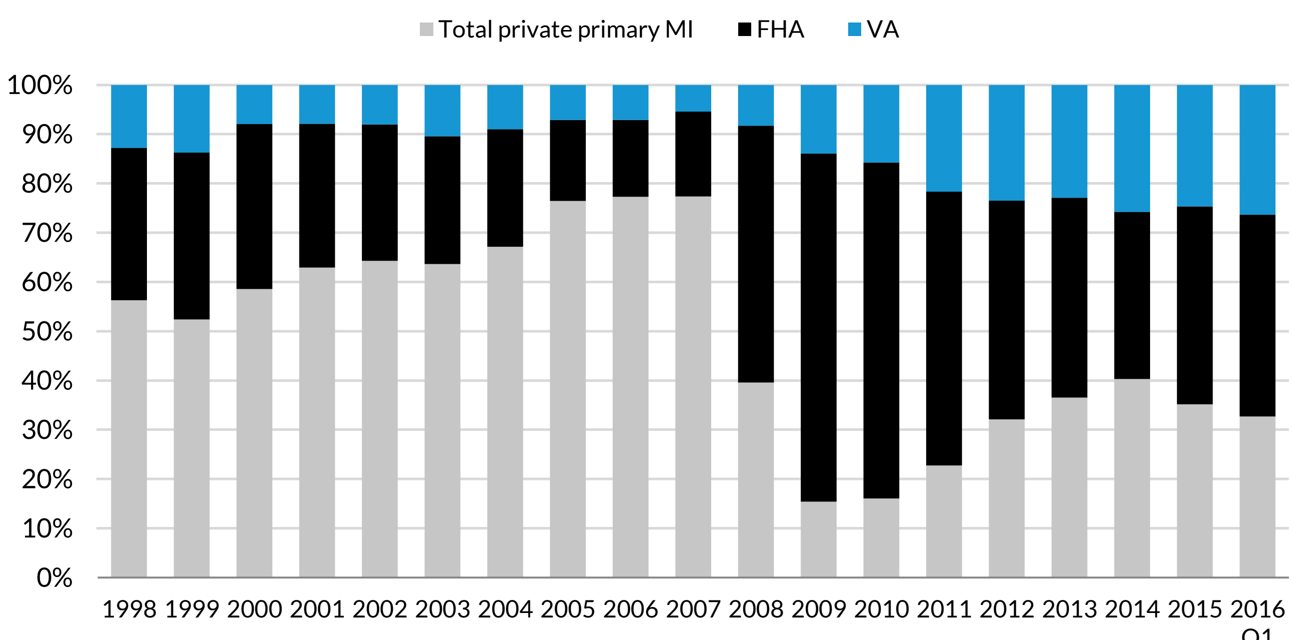
MI Activity

In 2016 Q1, mortgage insurance activity via the FHA, VA and private insurers fell slightly to $140.2 billion, down from last quarter's $145.2 billion but still up 12 percent year-over-year from the same quarter in 2015. This decline was driven by private insurers while FHA and VA activities stayed stable. FHA's market share rose to 41 percent in 2016 Q1 (from 40 percent the previous quarter), while the private insurance market's share declined to 33 percent (from 35 percent the previous quarter).



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% from 2008 to 2013 as FHA worked to shore up its finances. In January 2015, President Obama announced a 50 bps cut in the annual insurance premiums, making FHA mortgages more attractive than GSE mortgages for both low and high credit score 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% down will now find FHA more economic for all borrowers except those with FICOs of 760 or above.

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	3.40%
FHA	3.00%

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	$1,206	$1206	$1,206	$1,206	$1,206	$1,206	$1,206	$1,206
PMI	$1,618	$1,557	$1,513	$1,392	$1,342	$1,288	$1,241	$1,201
PMI Advantage	($413)	($351)	($307)	($186)	($136)	($82)	($35)	$5

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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Upcoming Events

August 17, 2016 Sunset Seminar: Emerging Issues in Mortgage Servicing *with Ed DeMarco, Milken Institute; Laurie Goodman, Urban Institute; Raghu Kakumanu, Wells Fargo; Laurie Maggiano, Consumer Financial Protection Bureau; and Michael Stegman, Bipartisan Policy Center. Please check our events page for more information.*

Publications

FHA Clarifies Financing on Properties with PACE Loans
Author: Laurie Goodman
Date: July 20, 2016

How Much House Do Americans Really Own? Measuring America's Accessible Housing Wealth by Geography and Age
Authors: Wei Li, Laurie Goodman
Date: July 14, 2016

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Date: May 16, 2016

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Authors: Karan Kaul, Laurie Goodman
Date: May 6, 2016

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Date: April 18, 2016

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Date: March 31, 2016

Comparing Credit Profiles of American Renters and Owners
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Project

Housing Finance Reform Incubator

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Date: June 8, 2016

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Date: June 3, 2016

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Author: Karan Kaul
Date: May 27, 2016

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