

HOUSING FINANCE POLICY CENTER



HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

August 2015

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.

To receive regular updates from the Housing Finance Policy Center, please visit urban.org/center/hfpc to sign up for our bi-weekly newsletter.

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INTRODUCTION

In [last month's chartbook](#), we noted that tight credit conditions may finally be easing. This month, there are two new developments that suggest a continuation of that trend.

The FHA announces new Supplemental Performance Metric

On August 17th the FHA took a big step towards easing credit availability for low-FICO borrowers by [announcing](#) the Supplemental Performance Metric (SPM). This new metric, used in conjunction with FHA's existing compare ratio, will enable the FHA to better monitor lender performance. The compare ratio is the ratio of the weighted average serious delinquency rate (WASDQ) of a lender's loan portfolio to WASDQ for all FHA-insured loans. Lenders with high compare ratios are subject to action under FHA's Credit Watch Termination Initiative.

There are two ways for lenders to keep their WASDQ (and the compare ratio) down: (i) by working proactively to keep delinquencies low, or (ii) by simply curtailing loans to lower-FICO borrowers. Because lower-FICO mortgages default at higher rates, lenders shift their mix toward higher FICO mortgages and reduce their WASDQ, which ultimately makes it easier to clear the compare ratio assessment but disproportionately reduces credit availability for lower-FICO borrowers.

The new SPM addresses this problem by discerning the root cause of the increase in lender WASDQ. By taking into account the lender-specific mix of loans, lenders whose WASDQ is high simply because a higher percentage of their FHA mortgages are made to lower-FICO borrowers will not be penalized as long as their delinquencies are in line with market norms for that mix of business. This will provide some relief to all FHA lenders but will be especially welcomed by lenders whose mix is heavily weighted towards lower-FICO borrowers. The HFPC had [submitted a comment letter](#) on this last year, and we are pleased that our key recommendation was adopted in the final rule. We applaud the FHA for taking this step toward easing

credit availability for lower-FICO borrowers.

The FHFA finalizes GSE housing goals through 2017

The FHFA also announced its long awaited [Final Rule on the 2015 to 2017 Housing Goals](#) for Fannie Mae and Freddie Mac. Under the final rule, benchmarks for most goals and subgoals will see a very modest increase from 2014 levels. In addition, the FHFA has established a new low-income housing sub-goal for small multifamily properties for both enterprises. Setting housing goals has always been a balancing act between ensuring enterprise safety and soundness and helping communities. [We commented](#) on the proposed goals last October, expressing broad support for the numbers but concern with the large margin of error in the market assumptions on which they were based. We are pleased to note that FHFA intends to reassess their modeling with these concerns in mind. We anticipate the FHFA will consider the duty to serve rule next.

INSIDE THIS ISSUE

- The non-agency share of RMBS stands at 5.1 percent for 2015 (page 10)
- The GSEs and MBA expect mortgage originations to fall in 2016 but foresee growth in housing starts and home sales (page 12)
- Even with rising home prices and the recent uptick in interest rates, home prices at the national level remain affordable by historical standards (page 16)
- Serious delinquency rates are nearing pre-crisis levels (page 18)
- Fannie Mae's and Freddie Mac's average charged guarantee fees fell in Q2 2015 to 59.9 bps and 55.1 bps, respectively (page 20)
- HARP activity remains very low, and the number of eligible borrowers continues to decrease (pages 24-25)
- Mortgage insurance activity jumped by 36 percent in 2015 Q2, led by a surge in FHA originations (page 32)
- See our quarterly feature of composition, default, repurchase and severity information from the GSEs' performance data (pages 34-41)

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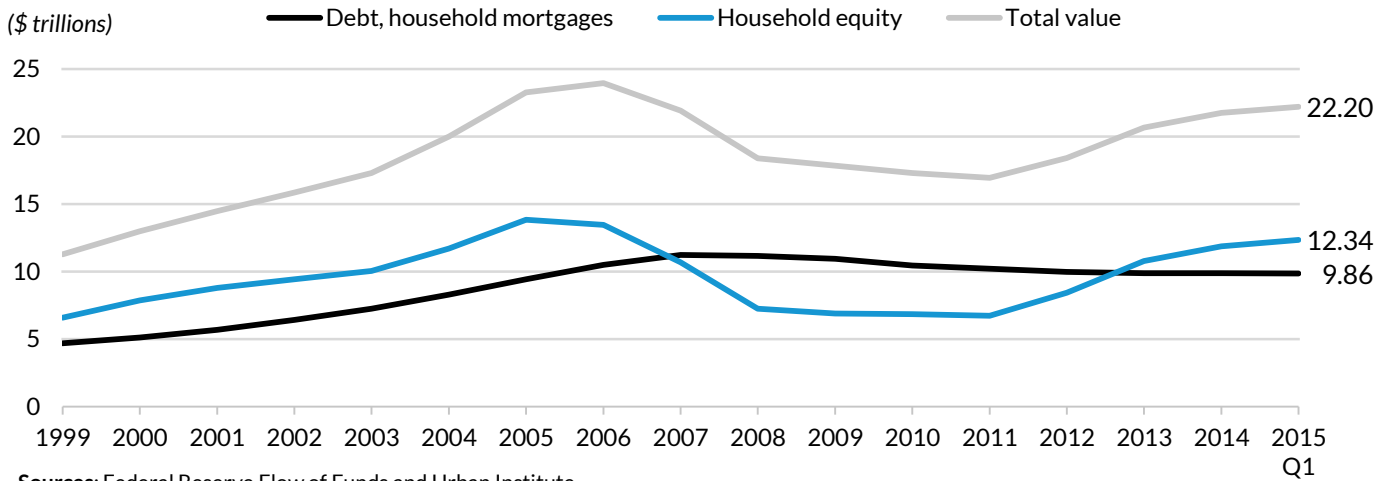
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OVERVIEW

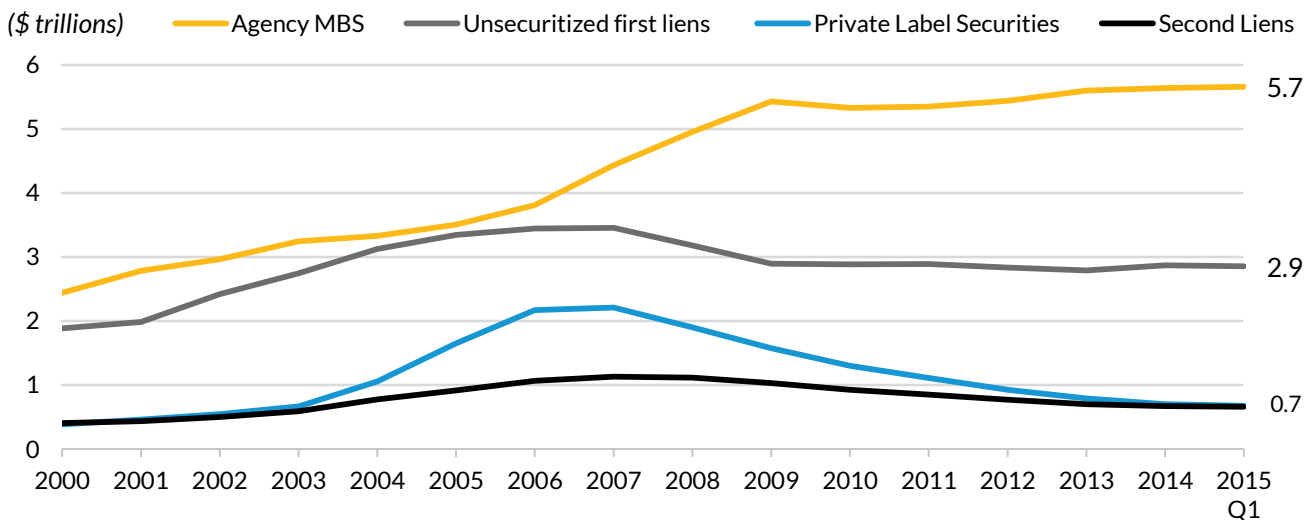
MARKET SIZE OVERVIEW

The Federal Reserve's Flow of Funds report has consistently indicated an increasing total value of the housing market driven by growing household equity in recent years, and the trend continued in Q1 2015. Total debt and mortgages declined slightly to \$9.86 trillion, while household equity increased by 2 percent to \$12.34 trillion, bringing the total value of the housing market to \$22.2 trillion. Agency MBS make up 57.4 percent of the total mortgage market (a slight increase from the prior quarter), private-label securities make up 6.9 percent, and unsecuritized first liens at the GSEs, commercial banks, savings institutions, and credit unions make up 29.0 percent. Second liens comprise the remaining 6.7 percent of the total.

Value of the US Housing Market



Size of the US Residential Mortgage Market

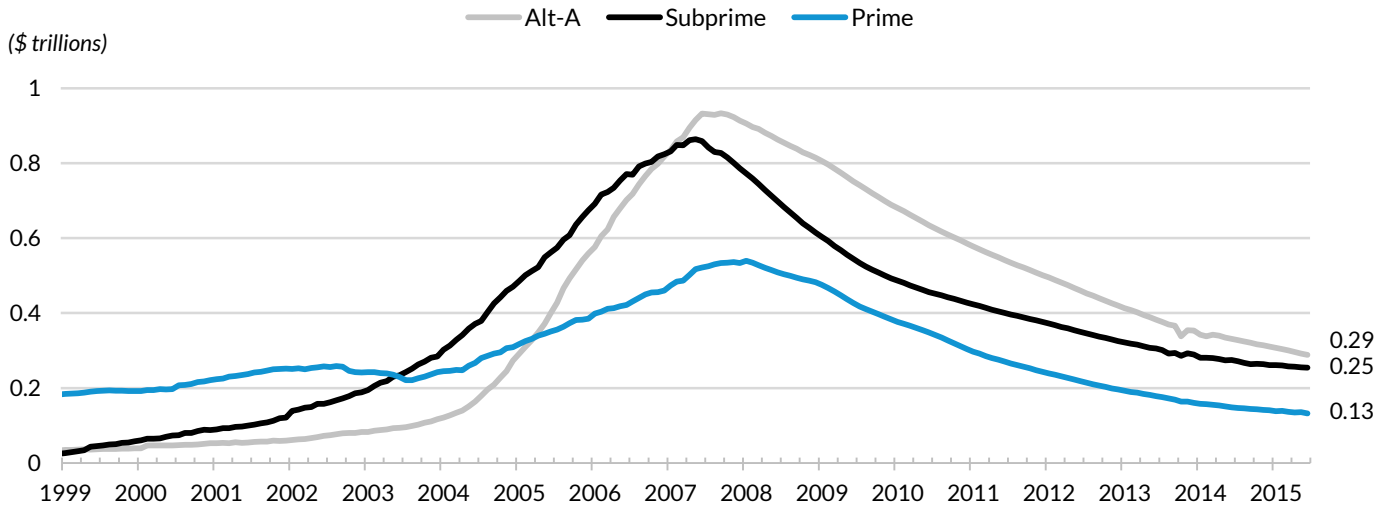


OVERVIEW

MARKET SIZE OVERVIEW

As of June 2015, debt in the private-label securitization market totaled \$675 billion and was split among prime (19.6 percent), Alt-A (42.7 percent), and subprime (37.7 percent) loans. In July 2015, outstanding securities in the agency market totaled \$5.72 trillion and were 45.8 percent Fannie Mae, 27.7 percent Freddie Mac, and 26.6 percent Ginnie Mae.

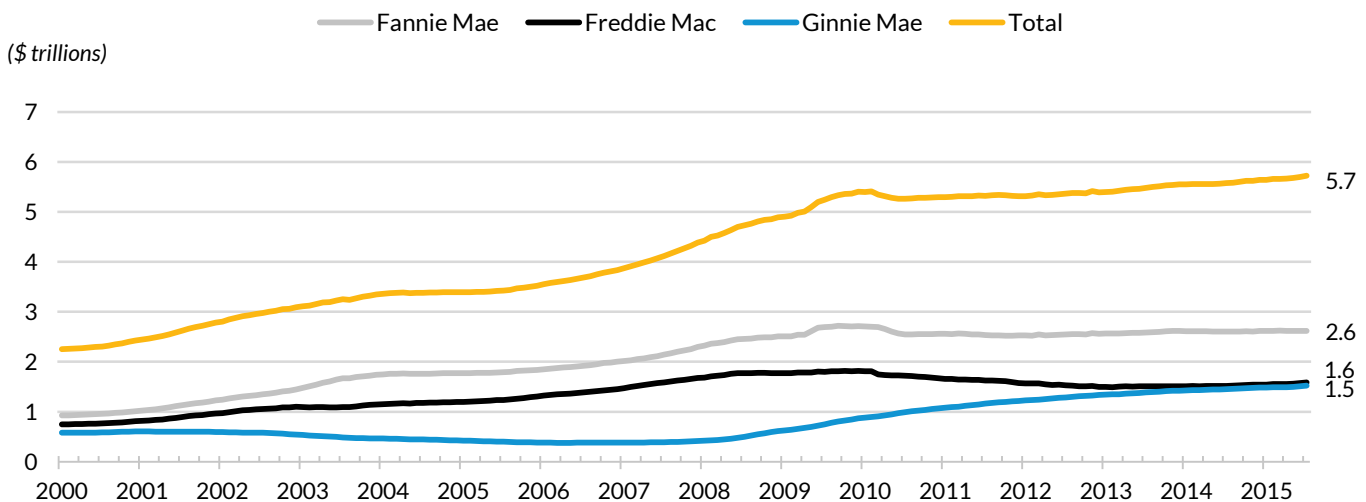
Private-Label Securities by Product Type



Sources: CoreLogic and Urban Institute.

June 2015

Agency Mortgage-Backed Securities



Sources: eMBS and Urban Institute.

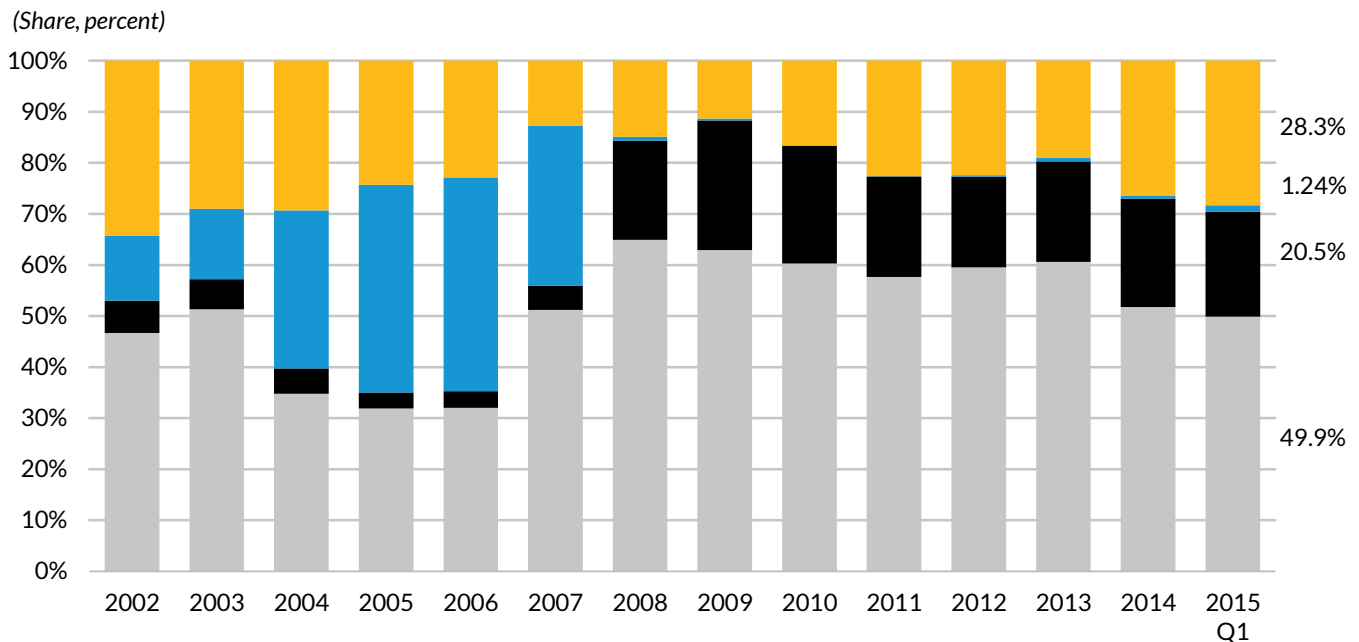
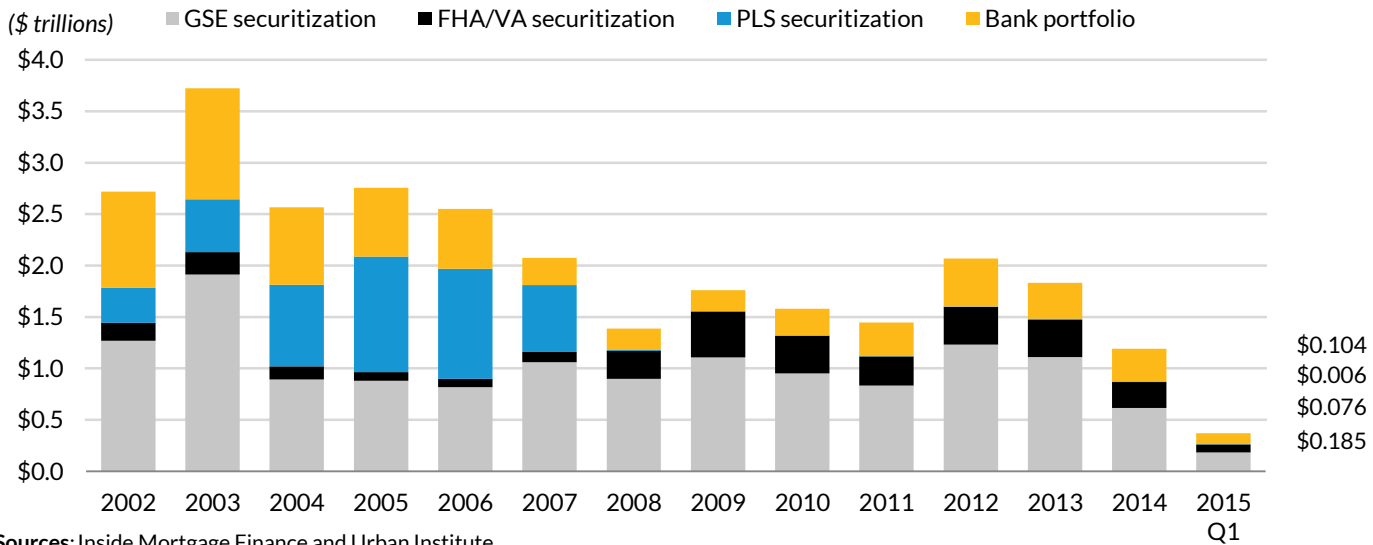
July 2015

OVERVIEW

ORIGINATION VOLUME AND COMPOSITION

First Lien Origination Volume

First lien originations in 2015 Q1 totaled approximately \$370 billion, a \$30 billion gain over the previous quarter and \$125 billion over the quarterly total from a year ago. The share of bank portfolio originations rose slightly, to 28 percent, while the GSE share dropped to 50 percent from 52 last year, reflecting the curtailment of refinancing activity. FHA/VA originations account for another 21 percent, and the private label originations were about 1 percent.

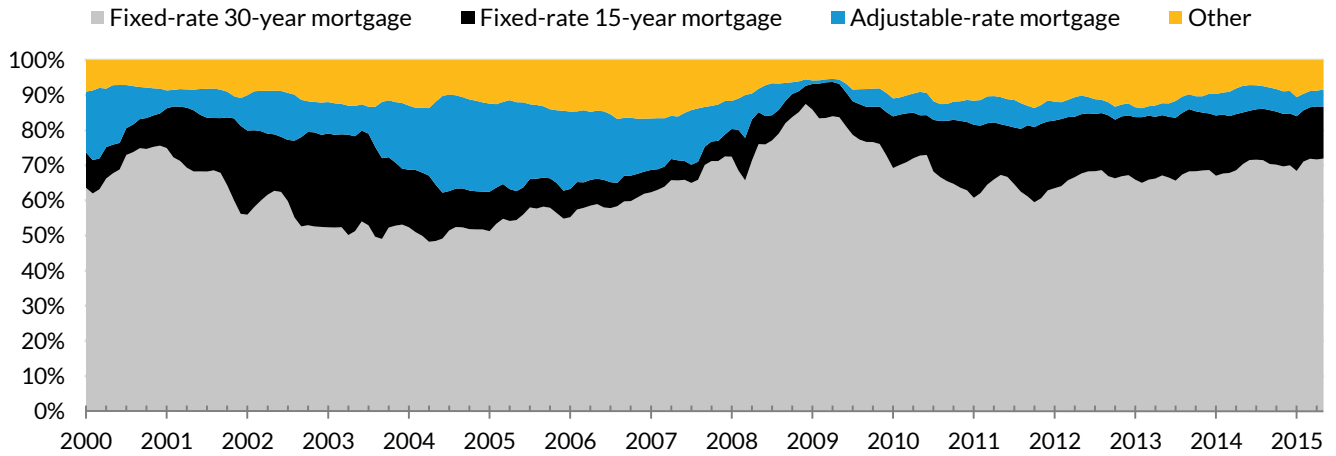


OVERVIEW

MORTGAGE ORIGINATION PRODUCT TYPE

Adjustable-rate mortgages (ARMs) accounted for as much as 28 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 7.6 percent in May 2014. Since then, they began to edge down again to 4.8 percent of total originations in May 2015, 36 percent lower than the level one year ago. 15-year fixed-rate mortgages (FRMs), predominantly a refinance product, comprise 14.8 percent of new originations. If we exclude refinances (bottom chart), the share of 30-year FRMs in May 2015 stood at 88.3 percent, 15-year FRMs at 5.4 percent, and ARMs at 5.2 percent.

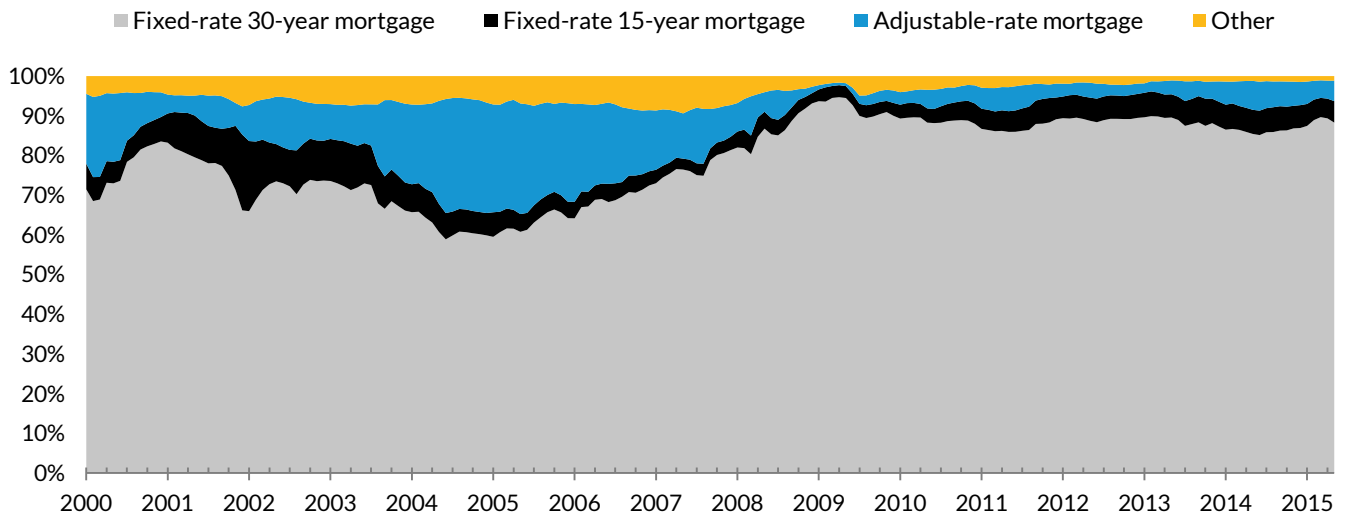
All Originations



Sources: CoreLogic Prime Servicing and Urban Institute.

May 2015

Purchase Loans Only



Sources: CoreLogic Prime Servicing and Urban Institute.

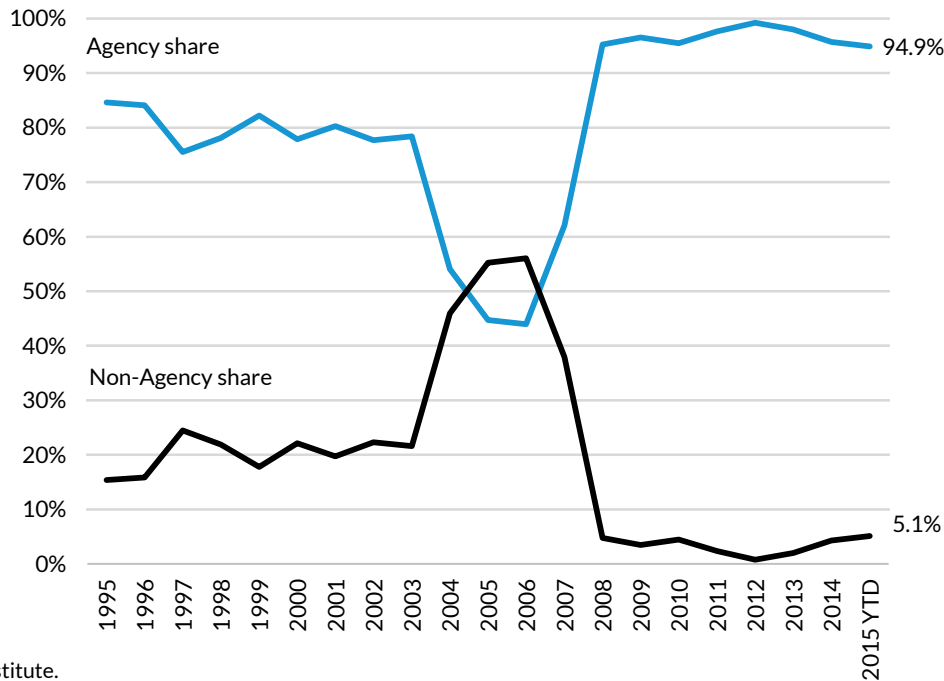
May 2015

OVERVIEW

SECURITIZATION VOLUME AND COMPOSITION

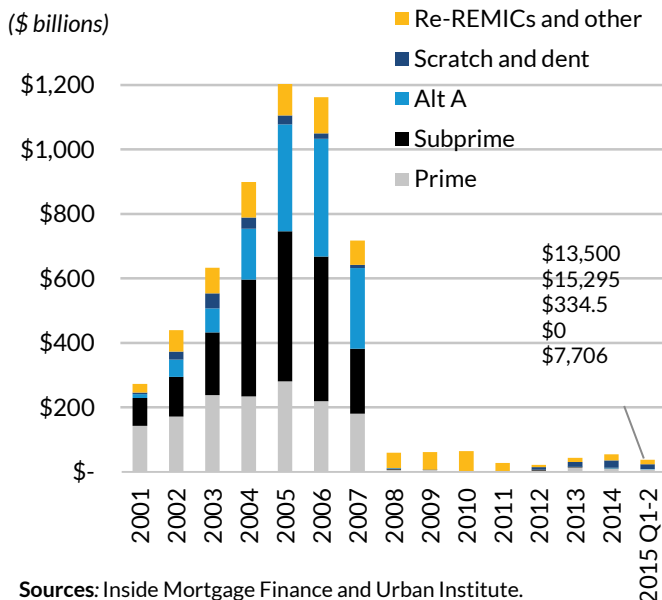
Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations was 5.1% through July 2015, compared to 4.3% in 2014 and 2.0% in 2013. This reflects the growing volume in scratch and dent securitizations (those backed by non-performing and re-performing loans, bottom left table). The volume of prime securitizations for Q1 and Q2 2015 totaled \$7.7 billion or \$15.4 billion annualized, far exceeding double last year's \$9 billion. However, this is tiny compared to pre-crises levels. To put in the perspective, in 2001, prime origination totaled \$142 billion..



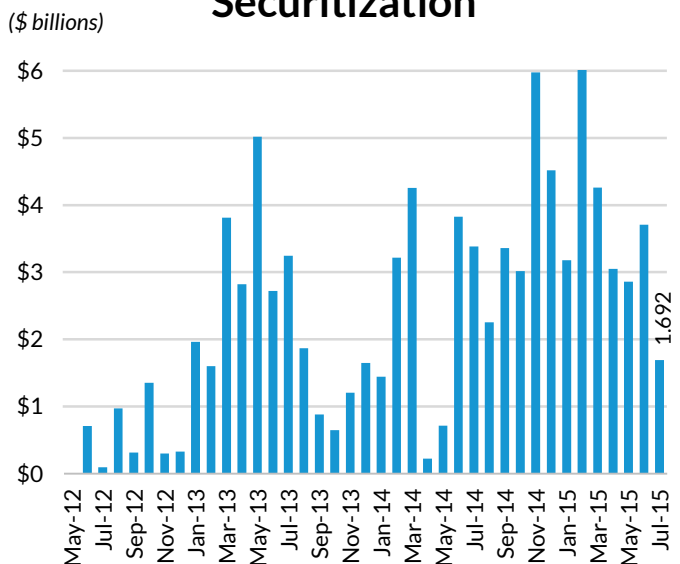
Sources: Inside Mortgage Finance and Urban Institute.

Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.

Monthly Non-Agency Securitization



Sources: Inside Mortgage Finance and Urban Institute.

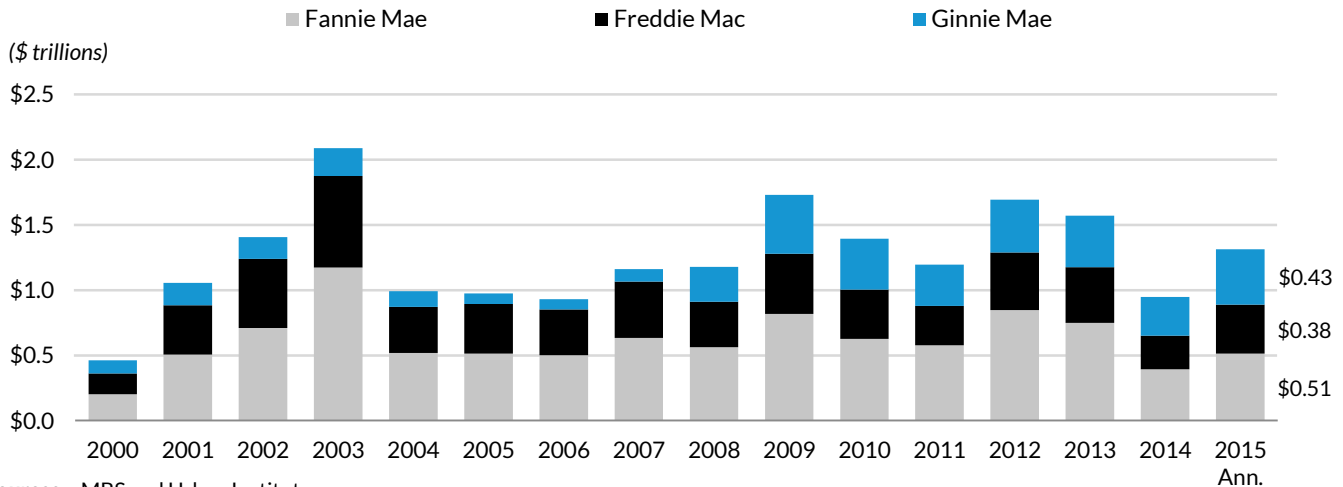
Note: Monthly figures equal total non-agency MBS issuance minus Re-REMIC issuance.

OVERVIEW

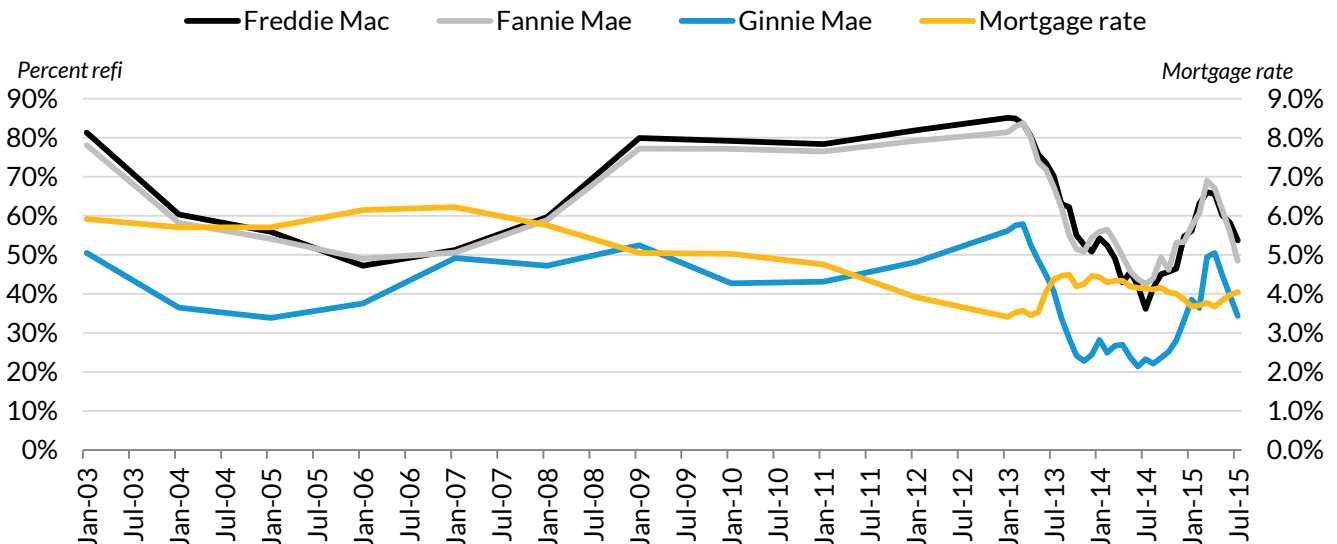
AGENCY ACTIVITY: VOLUMES AND PURCHASE/ REFI COMPOSITION

Agency issuance totaled \$767 billion in the first seven months of 2015, up from \$494 billion for the same period a year ago. In July 2015, refinances dropped to 49 and 54 percent of the Fannie Mae's and Freddie Mac's business, respectively, as the average mortgage rate began to edge up from low levels. The GNMA response to lower rates has been somewhat larger than the GSE response, due to the 50 bps cut in the FHA premium in January. The Ginnie Mae refinance volume stood at 34 percent in July 2015, down since April but still high relative to the past two years.

Agency Gross Issuance



Percent Refi at Issuance



STATE OF THE MARKET

MORTGAGE ORIGINATION PROJECTIONS

The GSEs and MBA anticipate a significant drop in mortgage originations over the next three quarters, with an expected low between \$250 and \$273 billion in 2016 Q1. Fannie Mae's projections for 2015, at 1.46 trillion, are a bit more robust than Freddie Mac at 1.35 trillion and the MBA at 1.37 trillion, partly a factor of lower interest rate assumptions. All three sources expect the refinance share of originations to fall steeply in 2016. Home sales are expected to be up substantially in 2015, more than making up for the dip in 2014, and are expected to continue to grow into 2016. Both housing starts and home sales are expected to strengthen considerably in 2015 and 2016.

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
2015 Q1	324	350	330	58	57	53
2015 Q2	467	400	395	50	45	43
2015 Q3	353	330	363	39	35	35
2015 Q4	320	270	283	40	34	35
2016 Q1	256	250	273	43	32	36
2016 Q2	321	390	346	30	32	28
2016 Q3	309	385	355	26	29	27
2016 Q4	285	250	291	27	25	31
FY 2012	2154	2122	2044	72	70	71
FY 2013	1866	1925	1845	60	59	60
FY 2014	1184	1250	1122	43	43	43
FY 2015	1464	1350	1371	47	43	42
FY 2016	1171	1275	1264	31	30	30

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, 2015, and 2016 were 4.0%, 4.2%, 4.0% and 4.7%, respectively. For 2015, Fannie Mae, Freddie Mac, and the MBA project rates of 3.9%, 4.0%, and 4.0%, respectively. For 2016, their respective projections are 4.3%, 4.9%, and 4.9%.

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 2012	781	780	783	5028	5030	5030	4661	369
FY 2013	925	920	930	5519	5520	5505	5073	432
FY 2014	1003	1000	1001	5377	5380	5360	4920	440
FY 2015	1118	1140	1101	5751	5610	5738	5217	521
FY 2016	1319	1400	1238	5951	5800	6035	5466	569

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.

STATE OF THE MARKET

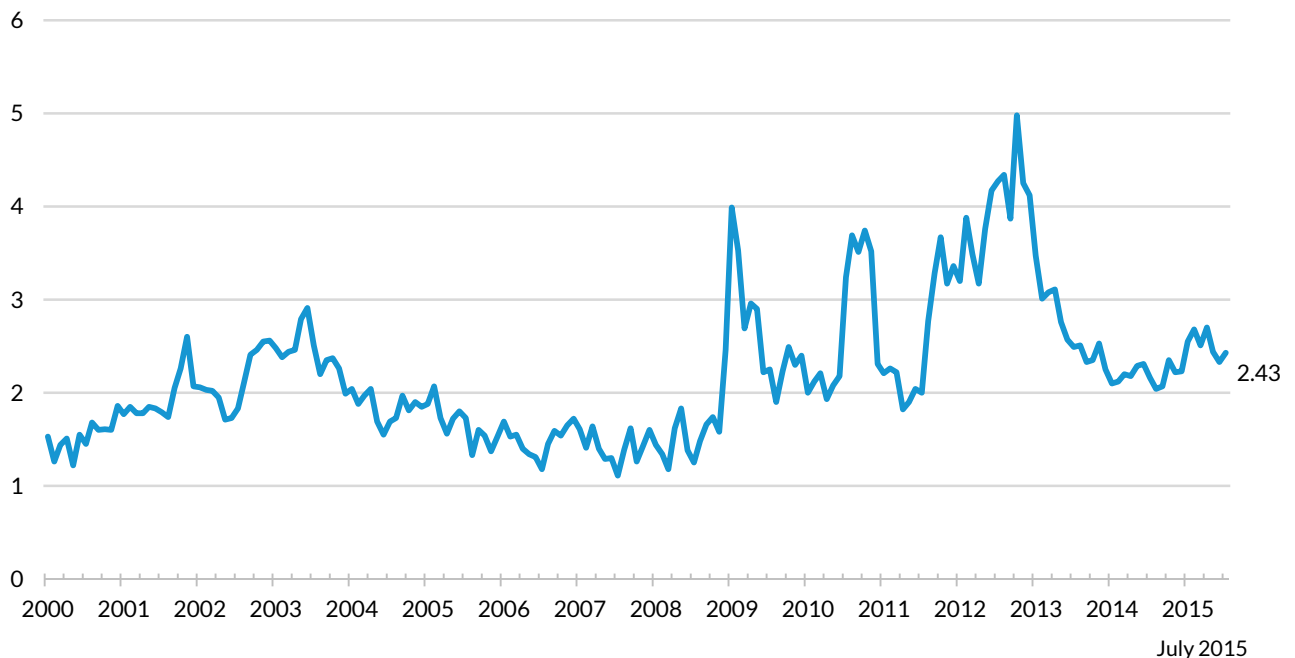
ORIGINATOR PROFITABILITY

When originator profitability is high, mortgage rates tend to be less responsive to the general level of interest rates, as originators are capacity-constrained. When originator profitability is low, mortgage rates are far more responsive to the general level of interest rates. As interest rates have risen from the lows in 2012, and fewer borrowers find it economical to refinance, originator profitability is lower. Originator profitability is often measured as the spread between the rate the borrower pays for the mortgage (the primary rate) and the yield on the underlying mortgage-backed security in the secondary market (the secondary rate). However, with guarantee fees up dramatically from 2011 levels, the so-called primary-secondary spread has become a very imperfect measure to compare profitability across time.

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 2.35 in 2014, and stood at 2.43 in July 2015.

Originator Profitability and Unmeasured Costs

Dollars per \$100 loan



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.

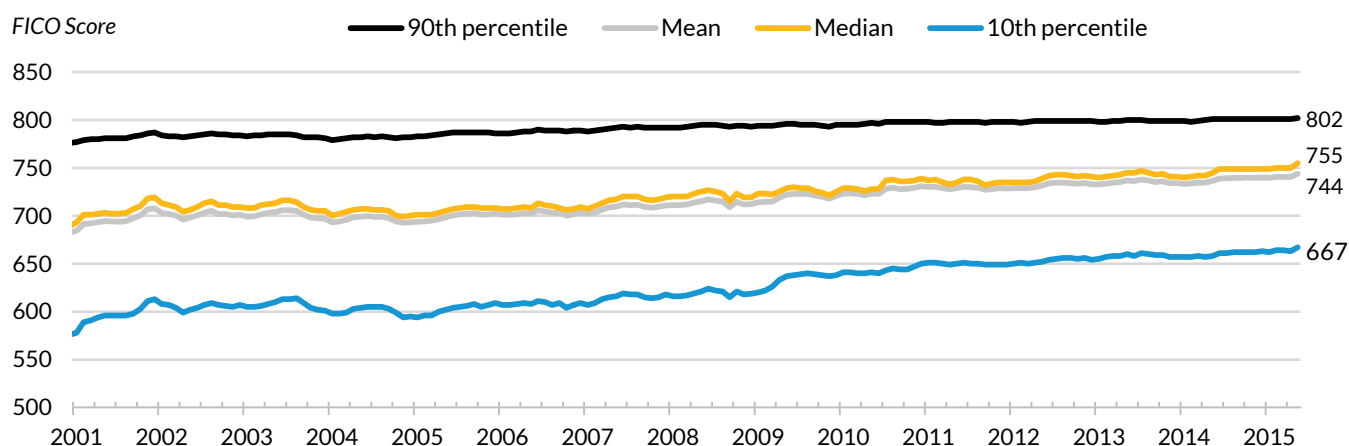
Note: OPUC stands for "originator profits and unmeasured costs" as discussed in [Fuster et al. \(2013\)](#). The OPUC series is a monthly (4-week moving) average.

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 45 and 50 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 667 as of May 2015. 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

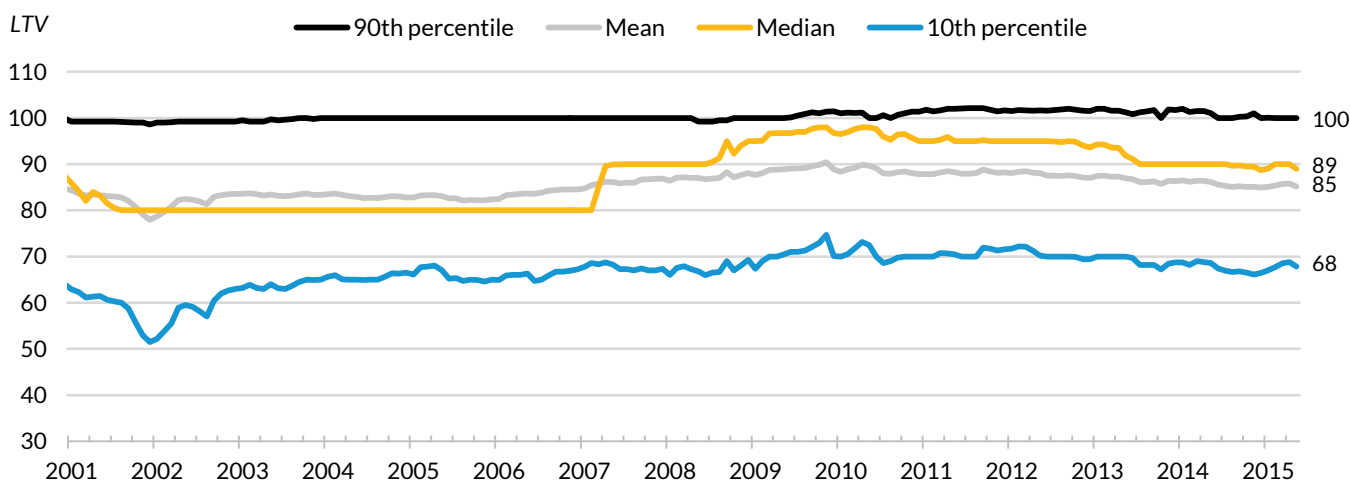


Sources: CoreLogic Servicing and Urban Institute.

May 2015

Note: Purchase-only loans.

Combined LTV at Origination



Sources: CoreLogic Servicing and Urban Institute.

May 2015

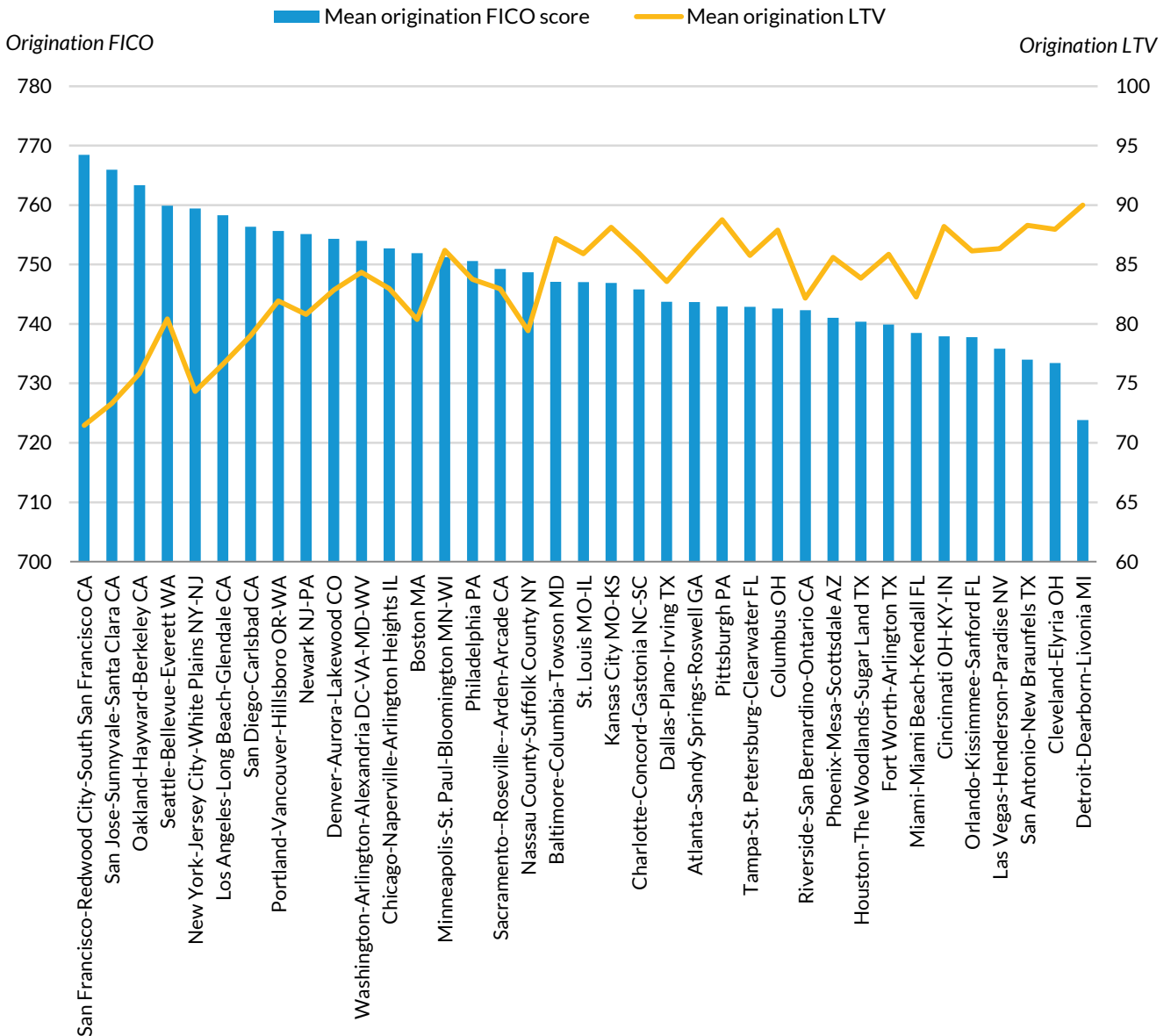
Note: Purchase-only loans.

STATE OF THE MARKET

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 768, while in Detroit-Dearborn-Livonia, MI it is 723. 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 by MSA



Sources: CoreLogic Servicing as of May 2015 and Urban Institute.

Note: Purchase-only loans.

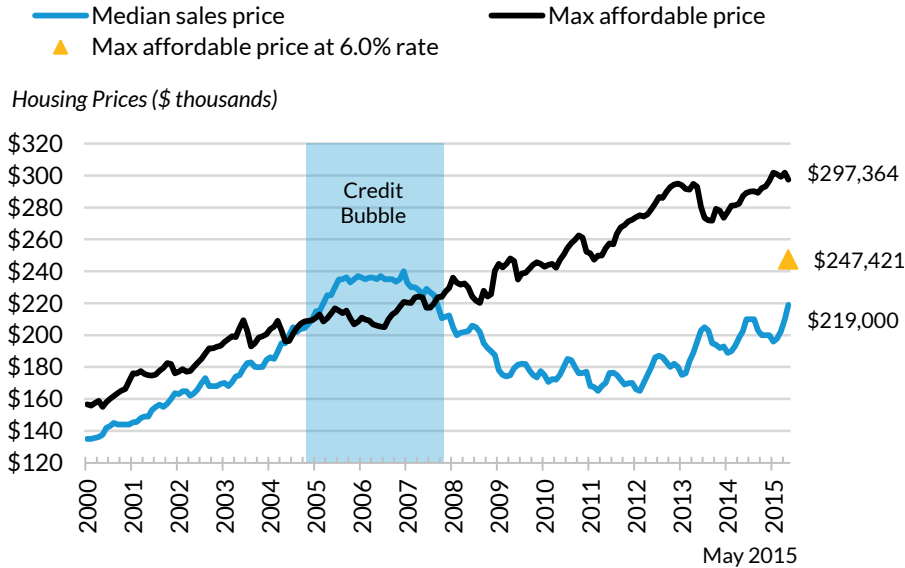
STATE OF THE MARKET

HOUSING AFFORDABILITY

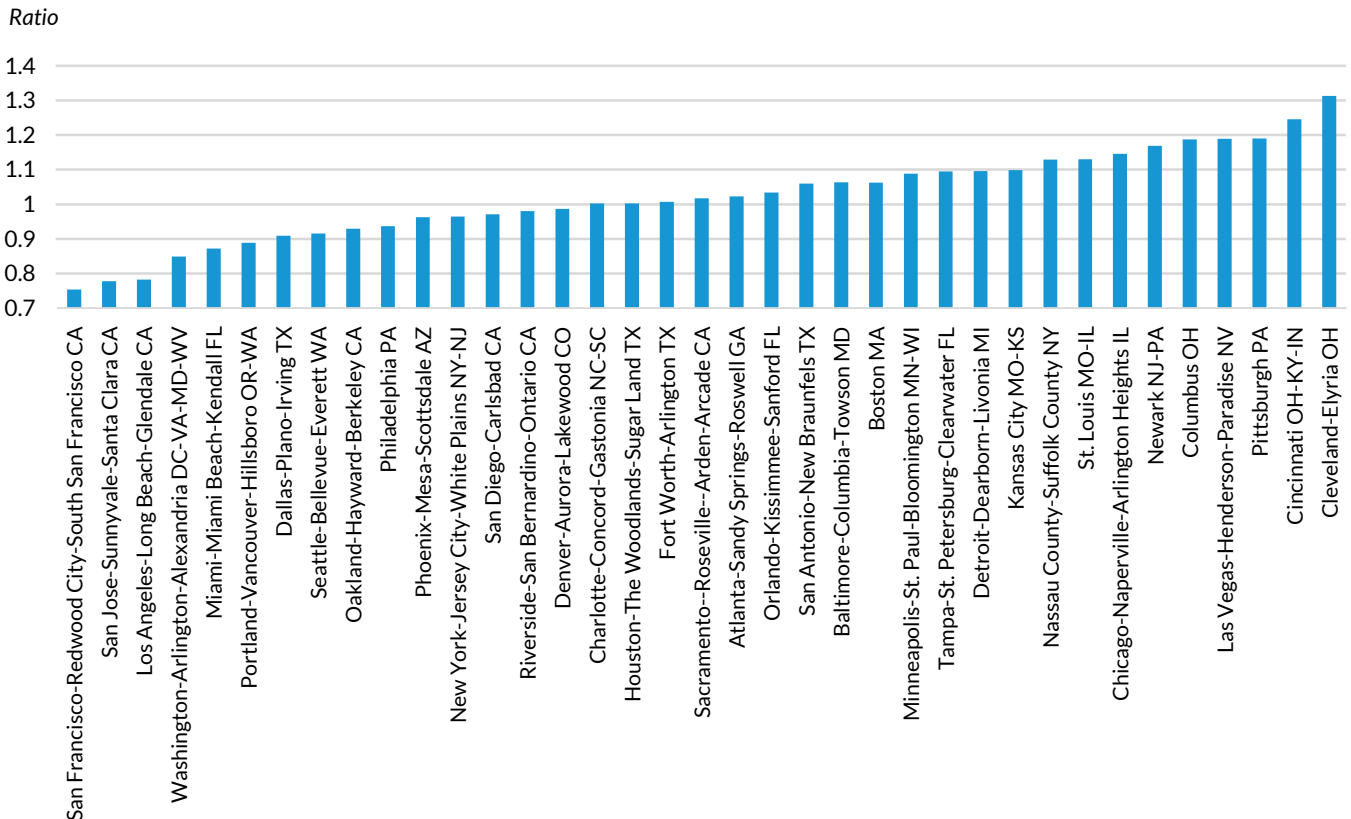
National Housing Affordability Over Time

Home prices are still very affordable by historical standards, despite increases over the last three 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 UI calculations based on NAR methodology.

Note: Index is calculated relative to home prices in 2000-03. A ratio above 1 indicates higher affordability in May 2015 than in 2000-03.

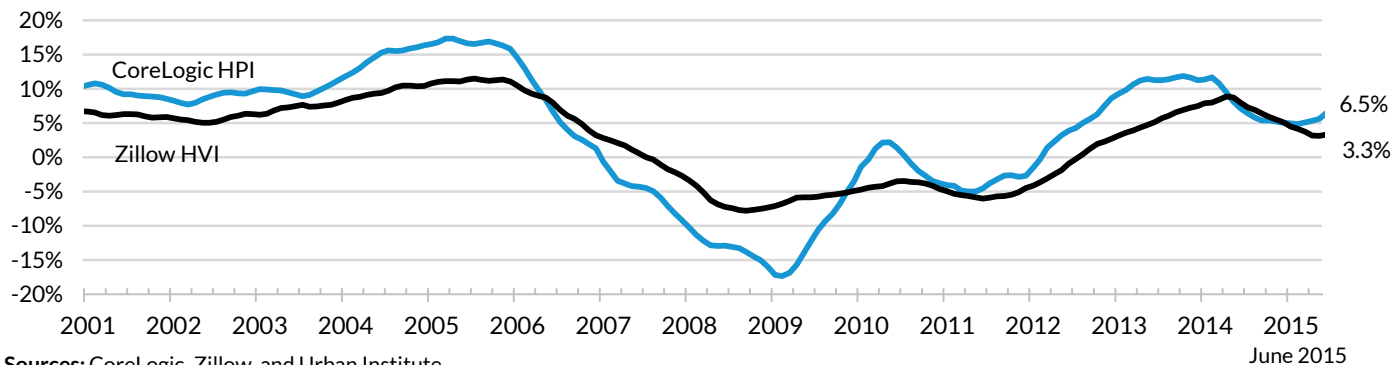
STATE OF THE MARKET

HOME PRICE INDICES

National Year-Over-Year HPI Growth

The strong year-over-year house price growth through 2013 has slowed somewhat since 2014, as indicated by both the repeated sales HPI from CoreLogic and hedonic index from Zillow.

Year-over-year growth rate



Sources: CoreLogic, Zillow, and Urban Institute.

June 2015

Changes in CoreLogic HPI for Top MSAs

Despite rising 36.7 percent from the trough, national house prices still must grow 8 percent to reach pre-crisis peak levels. At the MSA level, three of the top 15 MSAs have reached their peak HPI – Houston, TX; Dallas, TX; and Denver, CO. Two MSAs particularly hard hit by the boom and bust – Phoenix, AZ and Riverside, CA – would need to rise 36 and 38 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	98.7	-32.3	36.7	8.0
New York-Jersey City-White Plains NY-NJ	114.5	-19.9	23.7	0.9
Los Angeles-Long Beach-Glendale CA	181.2	-38.9	51.3	8.1
Chicago-Naperville-Arlington Heights IL	65.1	-36.3	26.9	23.8
Atlanta-Sandy Springs-Roswell GA	40.8	-33.4	46.1	2.8
Washington-Arlington-Alexandria DC-VA-MD-WV	159.3	-33.2	32.4	13.0
Houston-The Woodlands-Sugar Land TX	44.5	-12.6	39.2	-17.8
Phoenix-Mesa-Scottsdale AZ	126.4	-52.6	55.4	35.8
Riverside-San Bernardino-Ontario CA	194.3	-53.2	54.6	38.2
Dallas-Plano-Irving TX	38.3	-13.5	35.0	-14.3
Minneapolis-St. Paul-Bloomington MN-WI	73.8	-30.4	30.6	10.0
Seattle-Bellevue-Everett WA	93.9	-31.6	46.0	0.2
Denver-Aurora-Lakewood CO	36.5	-14.4	47.3	-20.7
Baltimore-Columbia-Towson MD	129.0	-25.7	9.8	22.6
San Diego-Carlsbad CA	148.5	-38.1	42.9	13.0
Anaheim-Santa Ana-Irvine CA	162.3	-36.9	43.3	10.6

Sources: CoreLogic HPIs as of June 2015 and Urban Institute.

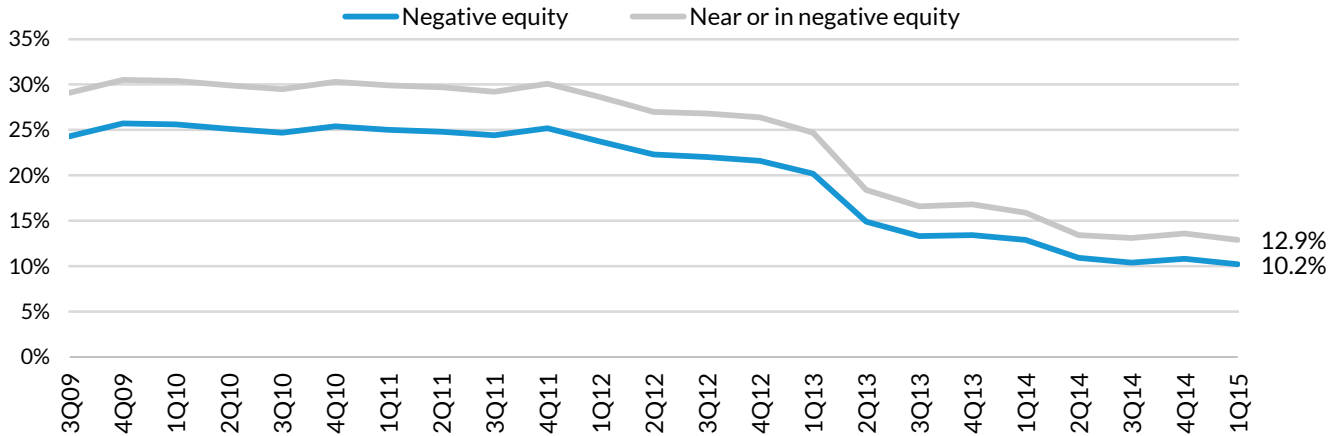
Note: This table includes the largest 15 Metropolitan areas by mortgage count.

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 a share of all residential properties with a mortgage have dropped to 10.2 percent as of Q1 2015. Residential properties in near negative equity (LTV between 95 and 100) comprise another 2.7 percent.



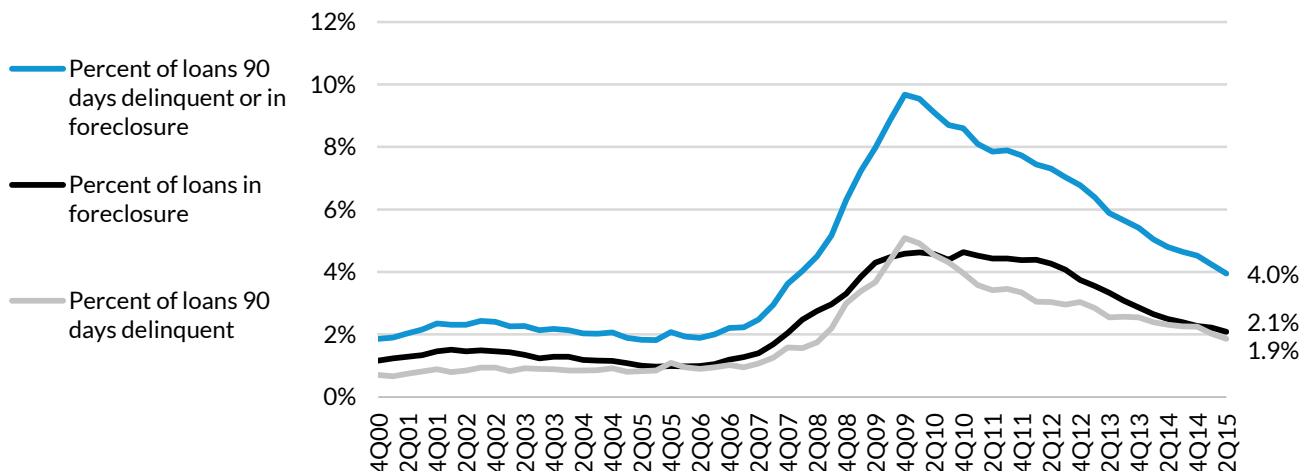
Sources: CoreLogic and Urban Institute.

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 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 4.0% in the second quarter of 2015, down from 4.8% for the same quarter a year earlier.



Sources: Mortgage Bankers Association and Urban Institute.

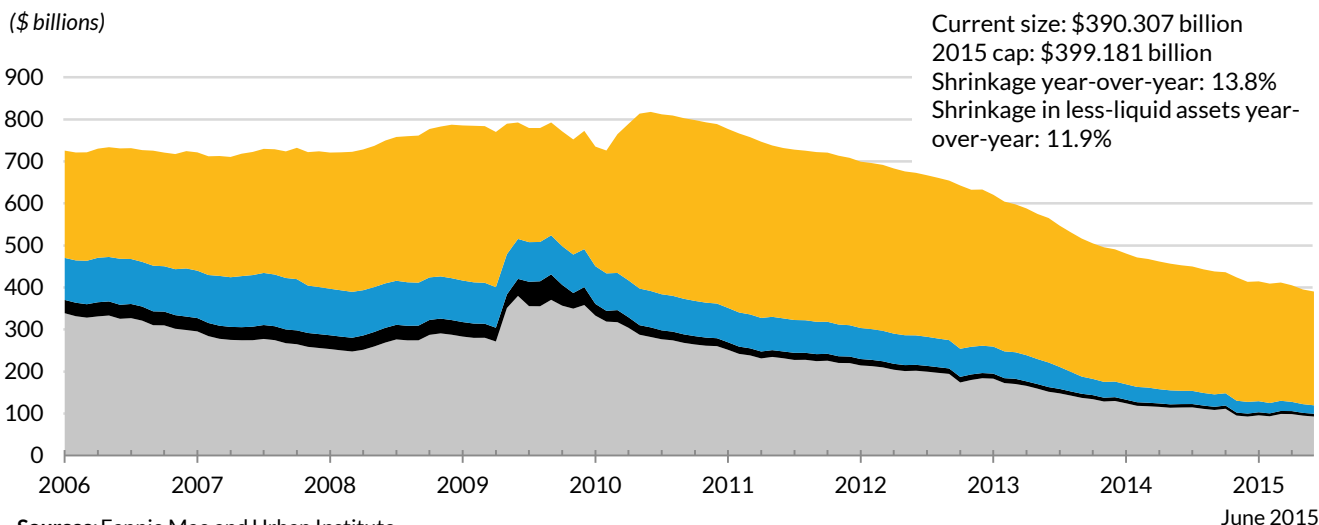
GSES UNDER CONSERVATORSHIP

GSE PORTFOLIO WIND-DOWN

Fannie and Freddie ended 2014 with portfolios totaling \$413.3 billion and \$408.4 billion, respectively, well below the 2014 cap and just above the 2015 cap of \$399 billion. In May 2015, portfolio size declined to below the 2015 caps for both GSEs, and the decline continued in June. Over the past year, Fannie contracted by 13.8 percent, and Freddie Mac by 8.9 percent. They are shrinking their less liquid assets (mortgage loans and non-agency MBS) at close to the same pace, or even more rapidly, than they are shrinking their entire portfolios.

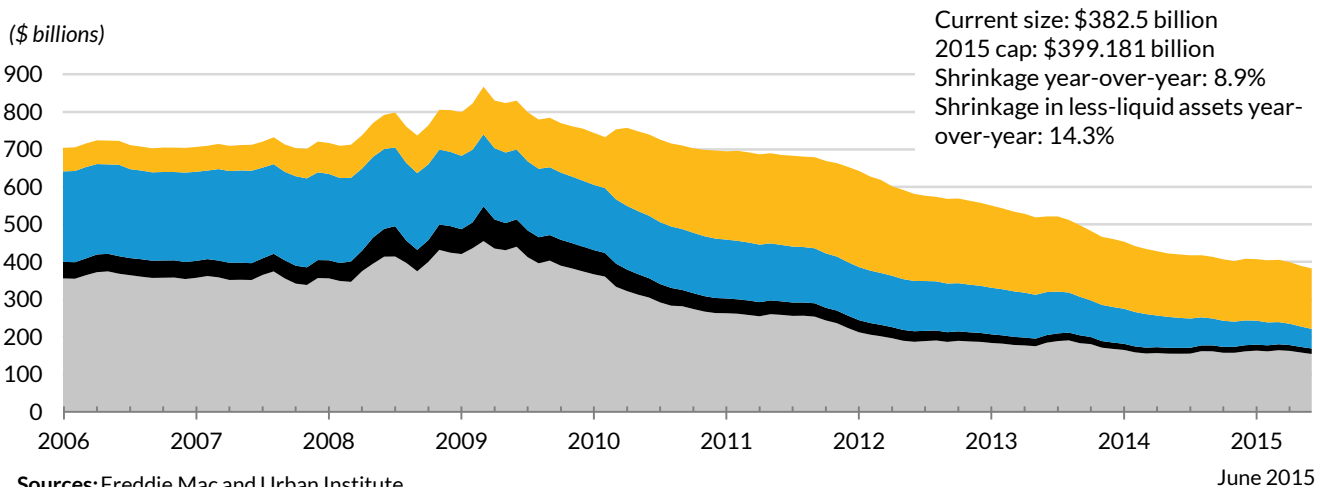
Fannie Mae Mortgage-Related Investment Portfolio Composition

■ FNMA MBS in portfolio ■ Non-FNMA agency MBS ■ Non-agency MBS ■ Mortgage loans



Freddie Mac Mortgage-Related Investment Portfolio Composition

■ FHLMC MBS in portfolio ■ Non-FHLMC agency MBS ■ Non-agency MBS ■ Mortgage loans

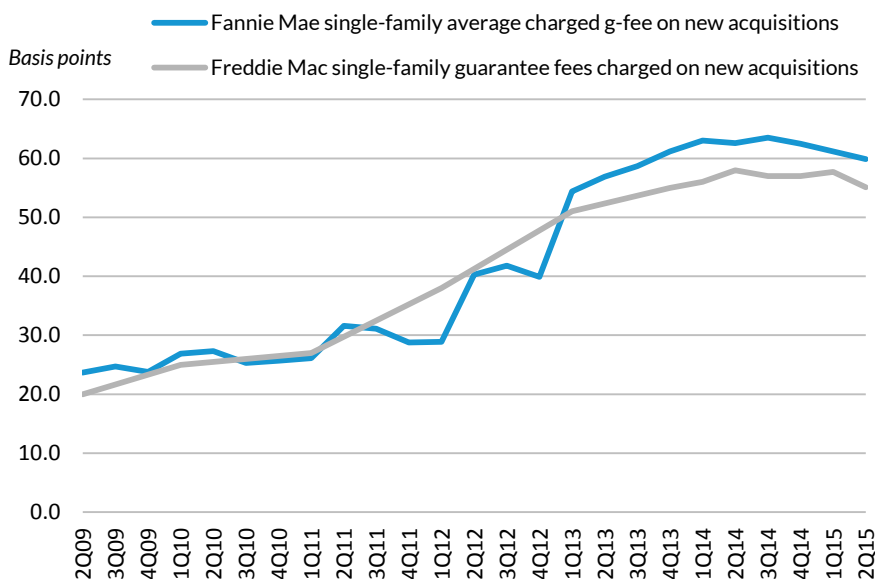


GSES UNDER CONSERVATORSHIP

EFFECTIVE GUARANTEE FEES AND GSE RISK-SHARING TRANSACTIONS

Guarantee Fees Charged on New Acquisitions

Fannie's average charged g-fee on new single-family originations dipped to 59.9 bps in Q2 2015, down from 61.2 bps in the previous quarter. Freddie's fee also fell in this quarter, to 55.1 bps from 57.7 bps. 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), to be introduced in September, are shown in the second table. The Adverse Market Delivery Charge (AMDC) of 0.25 percent will be eliminated, and LLPAs for some borrowers will be slightly increased to compensate for the revenue lost from the AMDC. As a result, the new LLPAs are expected to have a modest impact on GSE pricing.



Sources: Fannie Mae, Freddie Mac 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.

GSES UNDER CONSERVATORSHIP

GSE RISK-SHARING TRANSACTIONS: CAS AND STACR

Fannie Mae – Connecticut Avenue Securities (CAS)

Date	Transaction	Reference Pool Size (\$ millions)
October 2013	CAS 2013 – C01	\$26,756.40
January 2014	CAS 2014 – C01	\$29,308.70
May 2014	CAS 2014 – C02	\$60,818.48
July 2014	CAS 2014 – C03	\$78,233.73
November 2014	CAS 2014 – C04	\$58,872.70
February 2015	CAS 2015 – C01	\$50,192.00
May 2015	CAS 2015 – C02	\$45,009.10
June 2015	CAS 2015 – C03	\$48,326.40
Fannie Mae Total Reference Collateral		\$397,547.50
Percent of Fannie Mae's Total Book of Business		15.18%

Freddie Mac – Structured Agency Credit Risk (STACR)

Date	Transaction	Reference Pool Size (\$ millions)
July 2013	STACR Series 2013 – DN1	\$22,584.40
November 2013	STACR Series 2013 – DN2	\$35,327.30
February 2014	STACR Series 2014 – DN1	\$32,076.80
April 2014	STACR Series 2014 – DN2	\$28,146.98
August 2014	STACR Series 2014 – DN3	\$19,746.23
August 2014	STACR Series 2014 – HQ1	\$9,974.68
September 2014	STACR Series 2014 – HQ2	\$33,434.43
October 2014	STACR Series 2014 – DN4	\$15,740.71
October 2014	STACR Series 2014 – HQ3	\$8,000.61
February 2015	STACR Series 2015 – DN1	\$27,600.00
March 2015	STACR Series 2015 – HQ1	\$16,551.60
April 2015	STACR Series 2015 – DNA1	\$31,875.70
May 2015	STACR Series 2015 – HQ2	\$30,324.90
June 2015	STACR Series 2015 – DNA2	\$31,985.70
Freddie Mac Total Reference Collateral		\$343,370.00
Percent of Freddie Mac's Total Book of Business		22.08%

Details of Freddie Mac's June 2015 capital markets transaction, STACR Series 2015 – DNA2

Class	Amount (\$ millions)	Tranche Thickness (%)	CE (%)	Moody's Rating	Coupon (1mL+)
A-H	\$30,226.4	94.5	5.5	NR	NR
M-1, M-1H, Total	\$200, \$119.9, \$319.9	1	4.5	M: A3	115
M-2, M-2H, Total	\$400, \$239.7, \$639.7	2	2.5	M: Baa3	260
M-3, M-3H, Total	\$200, \$119.9, \$319.9	1	1.5	M: B1	390
B, BH, Total	\$150, \$329.8, \$479.8	1.5	0	NR	755
Reference Pool Size	\$31,985.7	100	--	--	--

Sources: Fannie Mae, Freddie Mac and Urban Institute.

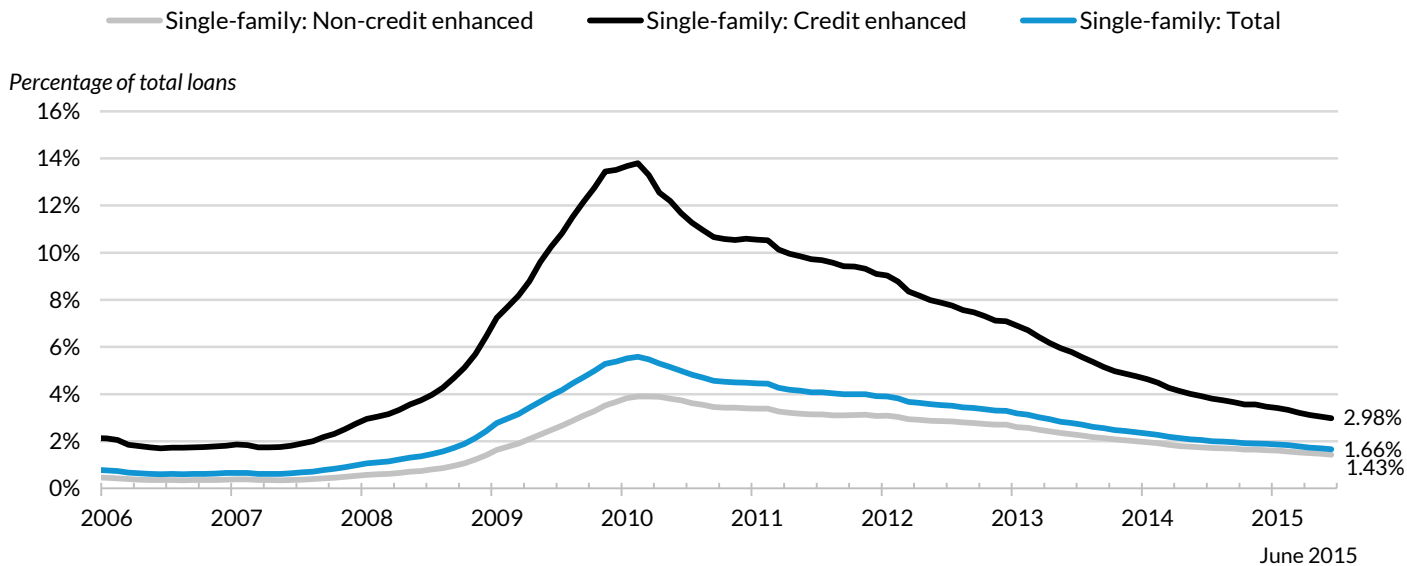
Note: Classes A-H, M-1H, M-2H, and B-H are reference tranches only. These classes are not issued or sold. The risk is retained by Fannie Mae and Freddie Mac. "CE" = credit enhancement.

GSES UNDER CONSERVATORSHIP

SERIOUS DELINQUENCY RATES

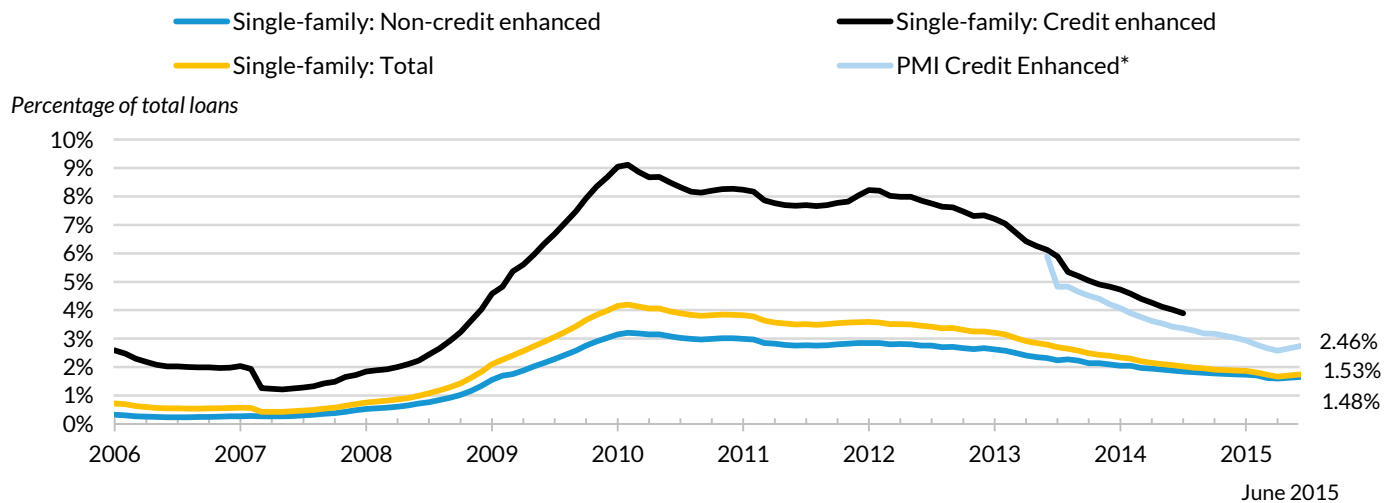
Serious delinquency rates of GSE loans continue to decline as the legacy portfolio is resolved and the pristine, post-2009 book of business exhibits very low default rates. As of June 2015, 1.66 percent of the Fannie portfolio and 1.53 percent of the Freddie portfolio were seriously delinquent, down from 2.05 percent for Fannie and 2.07 percent for Freddie in June 2014.

Serious Delinquency Rates–Fannie Mae



Sources: Fannie Mae and Urban Institute.

Serious Delinquency Rates–Freddie Mac



Sources: Freddie Mac and Urban Institute.

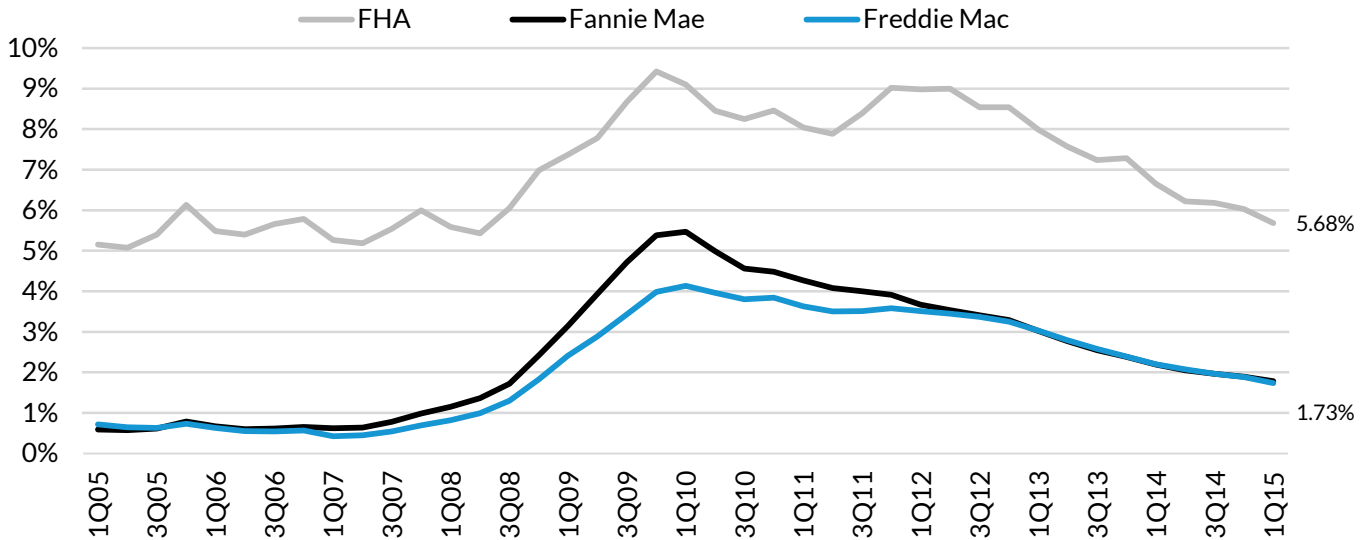
Note*: Following a change in Freddie reporting in September 2014, we switched from reporting credit enhanced delinquency rates to PMI credit enhanced delinquency rates.

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, though they did not reach problematic levels even in the worst years.

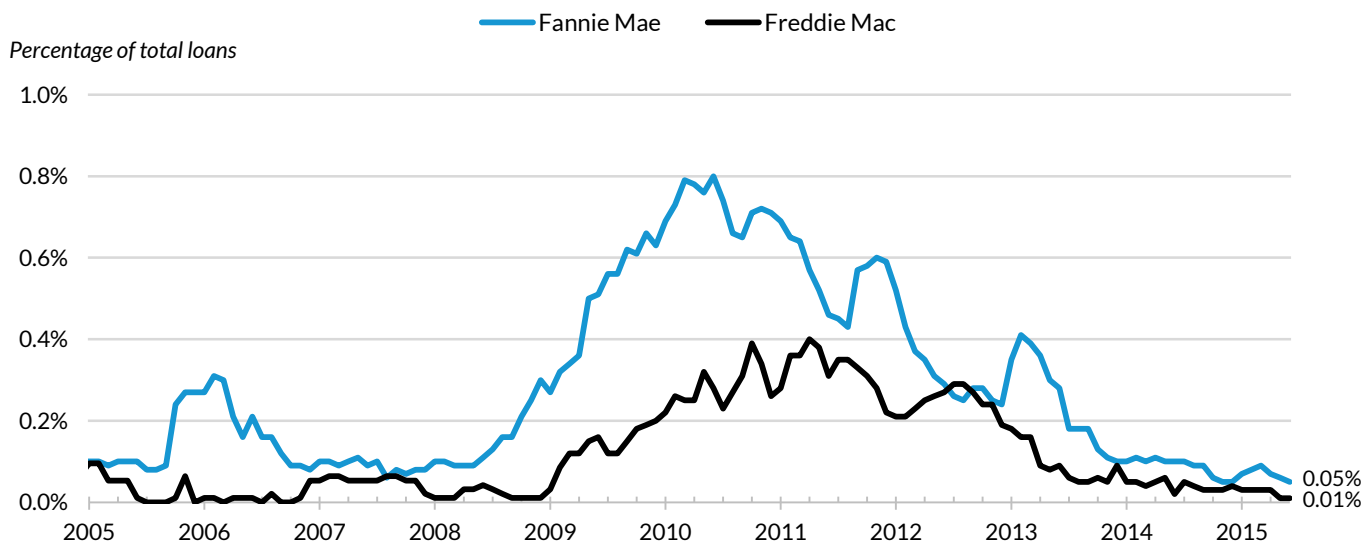
Serious Delinquency Rates–Single-Family Loans



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.

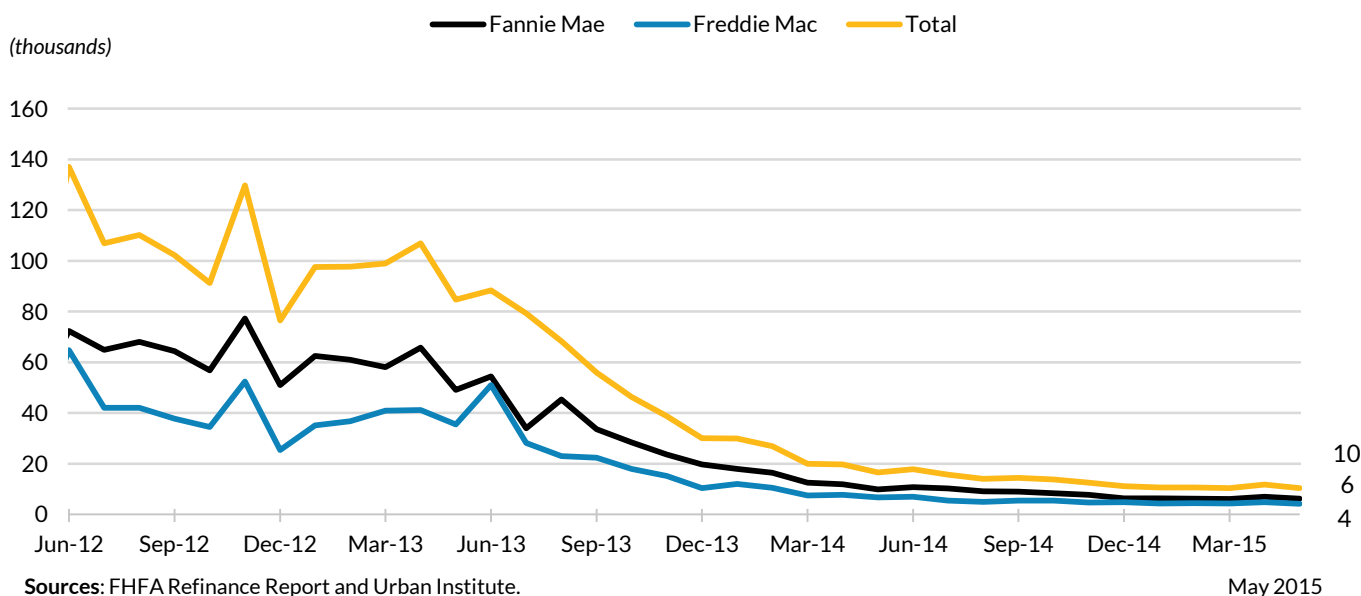
June 2015

GSES UNDER CONSERVATORSHIP

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 3.3 million, accounting for 16 percent of all GSE refinances in this period.

Total HARP Refinance Volume



HARP Refinances

	April 2015	Year-to-date 2015	Inception to date	2014	2013	2012
Total refinances	193,189	962,662	21,371,700	1,536,789	4,081,911	4,750,530
Total HARP refinances	10,419	53,783	3,324,228	212,497	892,914	1,074,769
Share 80–105 LTV	77.3%	75.7%	70.0%	72.5%	56.4%	56.4%
Share 105–125 LTV	15.0%	15.9%	17.2%	17.2%	22.4%	22.4%
Share >125 LTV	7.6%	8.4%	12.8%	10.3%	21.2%	21.0%
All other streamlined refinances	22,415	104,779	3,626,018	268,025	735,210	729,235

Sources: FHFA Refinance Report and Urban Institute.

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 494,660 eligible loans, but 46 percent are out-of-the-money because the closing cost would exceed the long-term savings, leaving 267,713 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 5,908,833 loans in this category, 4,588,763 are in-the-money.

More than 70 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	26,921,084
Loans that do not meet pay history requirement	1,373,954
Loans that meet pay history requirement:	25,547,130
Pre-June 2009 origination	6,403,493
Post-June 2009 origination	19,143,637

Loans Meeting HARP Pay History Requirements

Pre-June 2009

LTV category	In-the-money	Out-of-the-money	Total
≤80	4,588,763	1,320,070	5,908,833
>80	267,713	226,947	494,660
Total	4,856,476	1,547,018	6,403,493

Post-June 2009

LTV category	In-the-money	Out-of-the-money	Total
≤80	2,419,898	14,294,215	16,714,113
>80	399,133	2,030,390	2,429,524
Total	2,819,031	16,324,606	19,143,637

Sources: CoreLogic Prime Servicing as of June 2015 and Urban Institute.

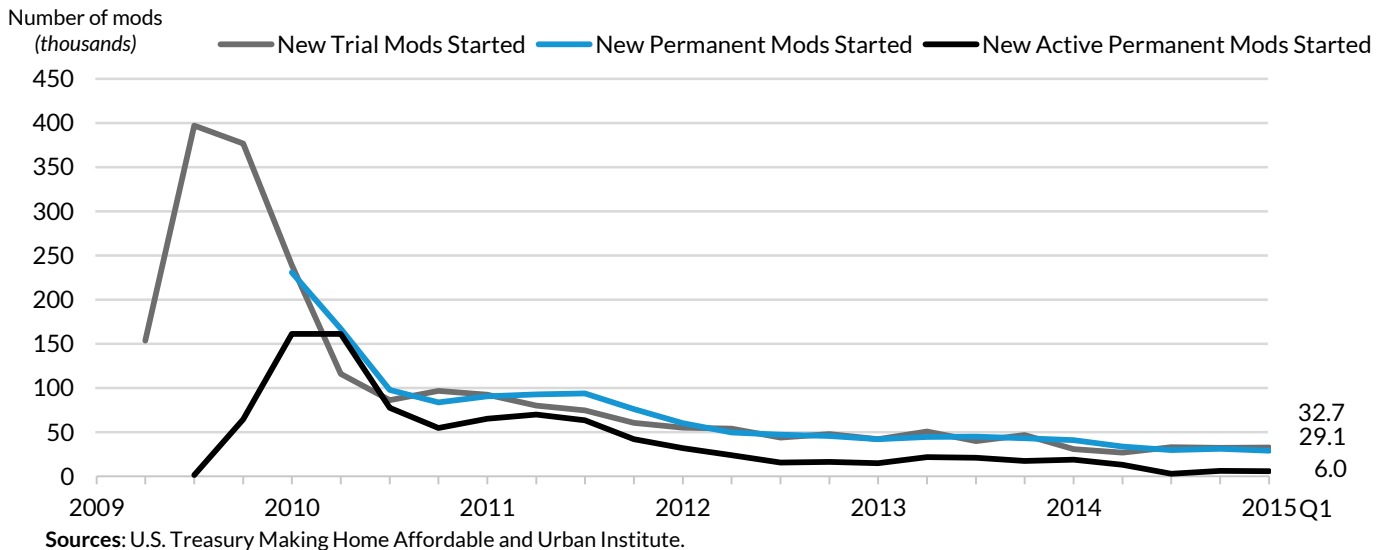
Note: Figures are scaled up from source data to account for data coverage of the GSE active loan market (based on MBS data from eMBS). Shaded box indicates HARP-eligible loans that are in-the-money.

MODIFICATION ACTIVITY

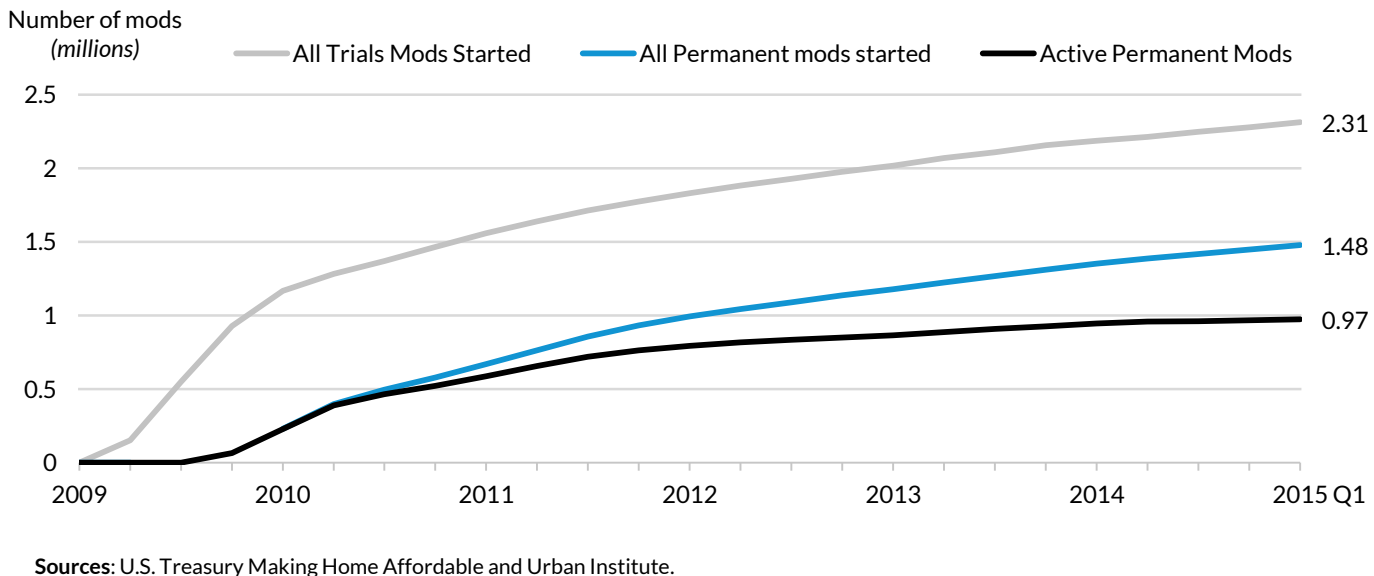
HAMP ACTIVITY

In 2015 Q1, new HAMP trial mods were slightly above last year's average rate of 30,800 per quarter, while new permanent mods exhibited their lowest quarterly total ever at 29,101. Cumulative permanent HAMP mods started total 1.48 million.

New HAMP Modifications



Cumulative HAMP Modifications



MODIFICATION ACTIVITY

MODIFICATION BY TYPE OF ACTION AND BEARER OF RISK

The latest OCC Mortgage Metrics report signals a sharp increase in the share of loans that received principal reductions, from 6.5 percent in Q4 2014 to 14.5 percent in Q1 2015. There are two reasons for this. First, a noticeable share (5.8 percent) of government loans are now getting principal reductions, up from less than 1% percent in the previous quarter. Second, the share of portfolio loans receiving principal reductions has risen sharply, from 27.4 percent in Q4 2014 to 50.3 percent in Q1 2015. The GSEs generally do not allow principal reduction modifications; the FHFA is studying whether a change in this policy is warranted.

Changes in Loan Terms for Modifications

	Modification Quarter						One quarter % change	One year % change
	13Q4	14Q1	14Q2	14Q3	14Q4	15Q1		
Capitalization	87.7	74.3	59	71.1	84.1	88.9	5.7	19.7
Rate reduction	76.7	73.3	71.9	66.5	65.1	68.2	4.8	-6.9
Rate freeze	7	6.5	7.1	7.5	8.4	7.4	-11.2	13.8
Term extension	75.9	78	84	82.0	83.8	84.9	1.2	8.8
Principal reduction	10.5	8.1	5	6.8	6.5	14.5	122.7	78.7
Principal deferral	30.6	25.1	11.5	15.9	10.4	9.9	-4.6	-60.0
Not reported*	0.7	0.7	0.7	0.5	0.4	0.5	15.8	-30.6

Sources: OCC Mortgage Metrics Report for the First Quarter of 2015 and Urban Institute.

Note: This table presents modifications of each type as a share of total modifications. Columns sum to over 100% because loans often receive modifications with multiple features.

*Processing constraints at some servicers prevented them from reporting specific modified term(s).

Type of Modification Action by Investor and Product Type

	Fannie Mae	Freddie Mac	Government-guaranteed	Private Investor	Portfolio	Overall
Capitalization	98.9%	98.8%	75.4%	93.6%	97.5%	88.9%
Rate reduction	40.5%	44.5%	82.6%	70.2%	78.6%	68.2%
Rate freeze	15.5%	8.8%	4.9%	5.3%	5.8%	7.4%
Term extension	95.4%	96.5%	97.7%	31.2%	71.3%	84.9%
Principal reduction	0.0%	0.1%	5.8%	20.6%	50.3%	14.5%
Principal deferral	15.6%	13.7%	0.3%	20.1%	16.0%	9.9%
Not reported*	-	0.1%	0.4%	1.2%	0.8%	0.5%

Sources: OCC Mortgage Metrics Report for the First Quarter of 2015 and Urban Institute.

Note: This table presents modifications of each type as a share of total modifications. Columns sum to over 100% because loans often receive modifications with multiple features.

*Processing constraints at some servicers prevented them from reporting specific modified term(s).

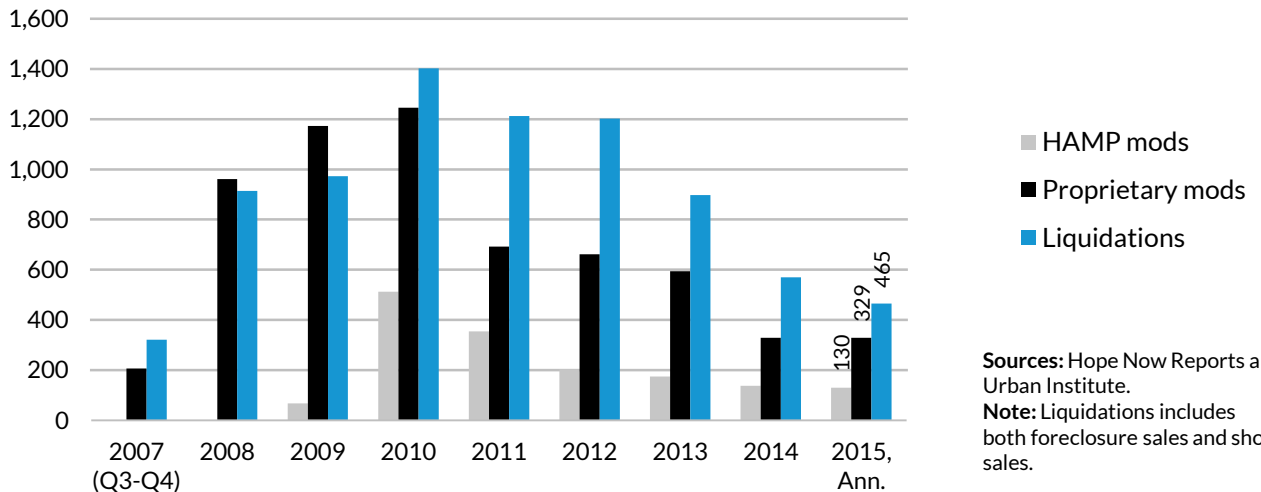
MODIFICATION ACTIVITY

MODIFICATIONS AND LIQUIDATIONS

Total modifications (HAMP and proprietary) as of June 2015 are roughly equal to total liquidations. Hope Now reports show 7,608,451 borrowers have received a modification since Q3 2007, compared with 7,725,882 liquidations in the same period. Modification activity slowed significantly in 2014 and has remained level in 2015, averaging 38,216 monthly for the first half of the year. Liquidations have continued to decline, averaging 38,801 over this period.

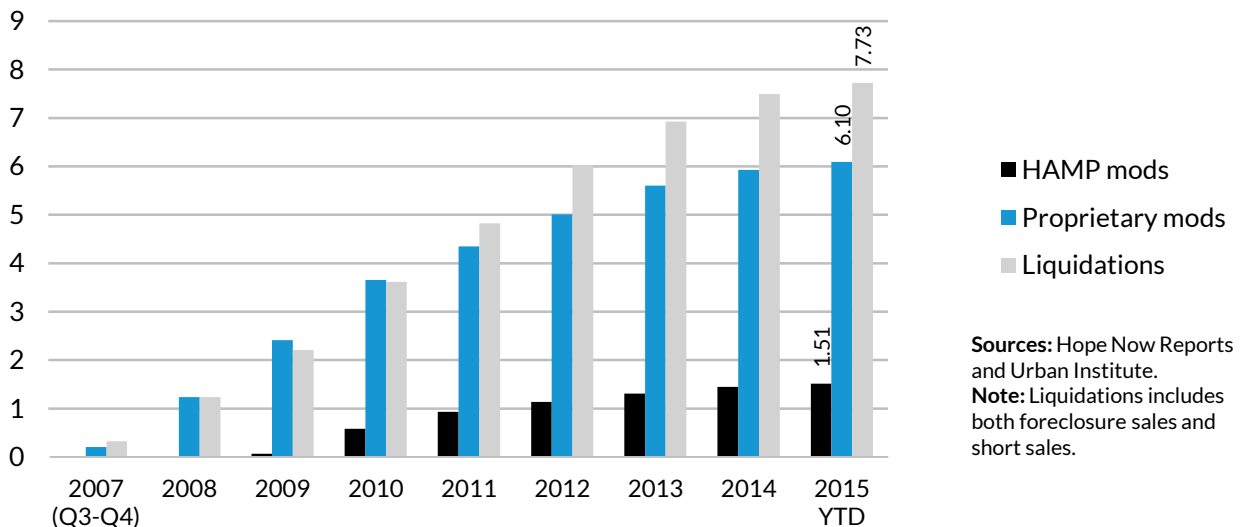
Loan Modifications and Liquidations

Number of loans (thousands)



Cumulative Modifications and Liquidations

Number of loans (millions)

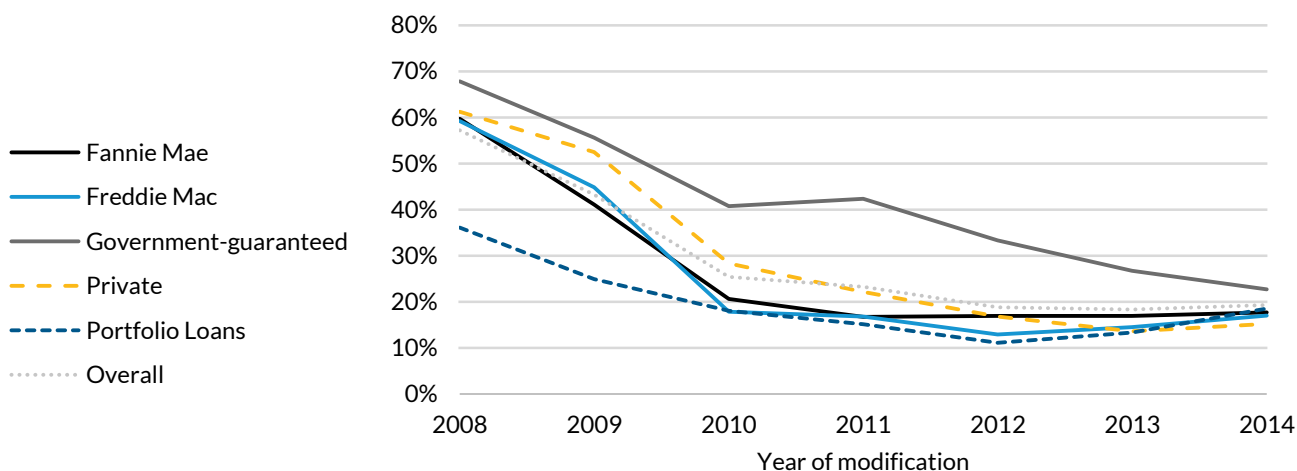


MODIFICATION ACTIVITY

MODIFICATION REDEFAULT RATES BY BEARER OF THE RISK

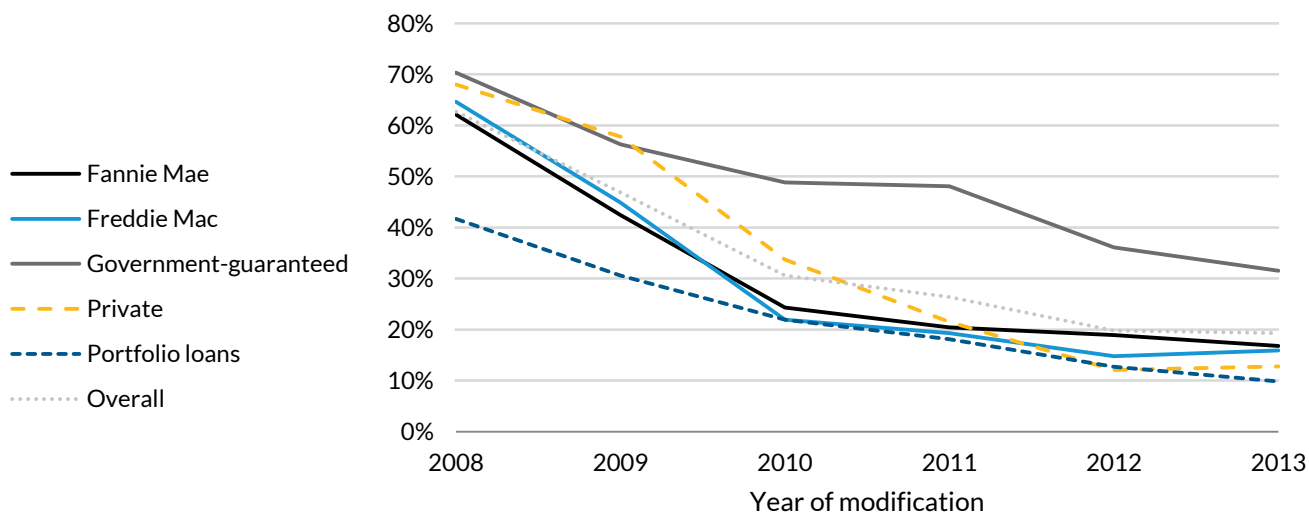
Redeault rates on modified loans have come down dramatically from 2008 to 2014. For the period as a whole, the steepest drops have been on private label modifications. More recently, there have been sharp declines in the redeault rates on government-guaranteed modifications, although this product type still has higher redeault rates than others.

Redeault Rate 12 Months after Modification



Sources: OCC Mortgage Metrics Report for the First Quarter of 2015 and Urban Institute.

Redeault Rate 24 Months after Modification



Sources: OCC Mortgage Metrics Report for the First Quarter of 2015 and Urban Institute.

AGENCY GROSS AND NET ISSUANCE

While refinancing activity fell off due to higher interest rates through the course of 2014, newly reduced rates and lowered FHA premiums have resulted in agency gross issuance of \$767 billion in the first seven months of 2015, a 55.3 percent increase 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 YTD	\$518.53	\$248.24	\$766.77
%Change year-over-year	53.6%	58.8%	55.3%
2015 Ann.	\$888.91	\$425.55	\$1,314.46

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 YTD	\$44.0	\$37.0	\$80.9
%Change year-over-year	-	18.54%	229.14%
2015 Ann.	\$75.39	\$63.36	\$138.75

Sources: eMBS and Urban Institute.

Note: Dollar amounts are in billions. Annualized figure based on data from July 2015.

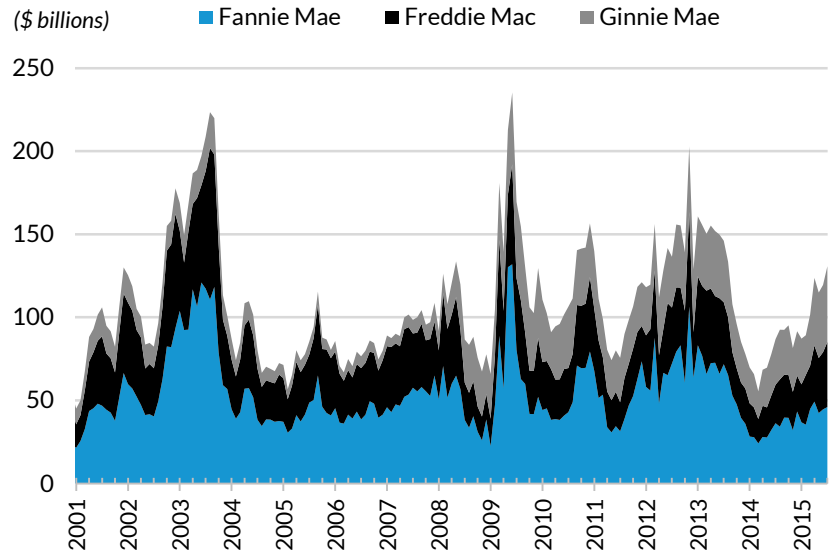
*omitted since the GSE net issuance totaled -\$6.6 billion in the first seven months of 2014.

AGENCY ISSUANCE

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 a bit since then. The Ginnie Mae issuance stood high at 35 percent in July 2015, as the FHA refinance activity surged with the recent reduction in the FHA insurance premium.

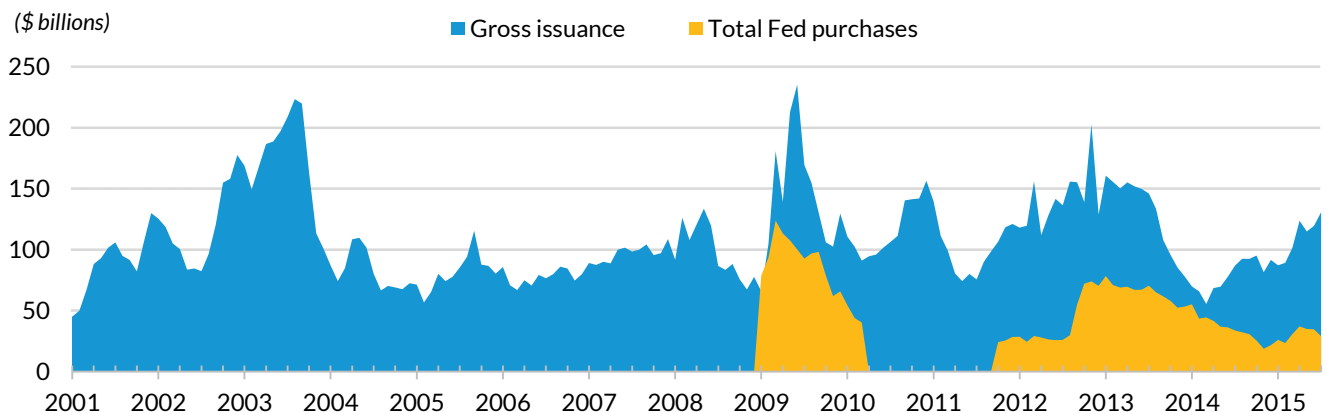


Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

July 2015

Fed Absorption of Agency Gross Issuance

In October 2014, the Fed ended its purchase program, but continued buying at a much reduced level, reflecting reinvestment of 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 23 and 30 percent. In July 2015, total Fed purchase dropped slightly to \$29 billion, yielding Fed absorption of gross issuance of 22 percent, down from 29 percent last month.



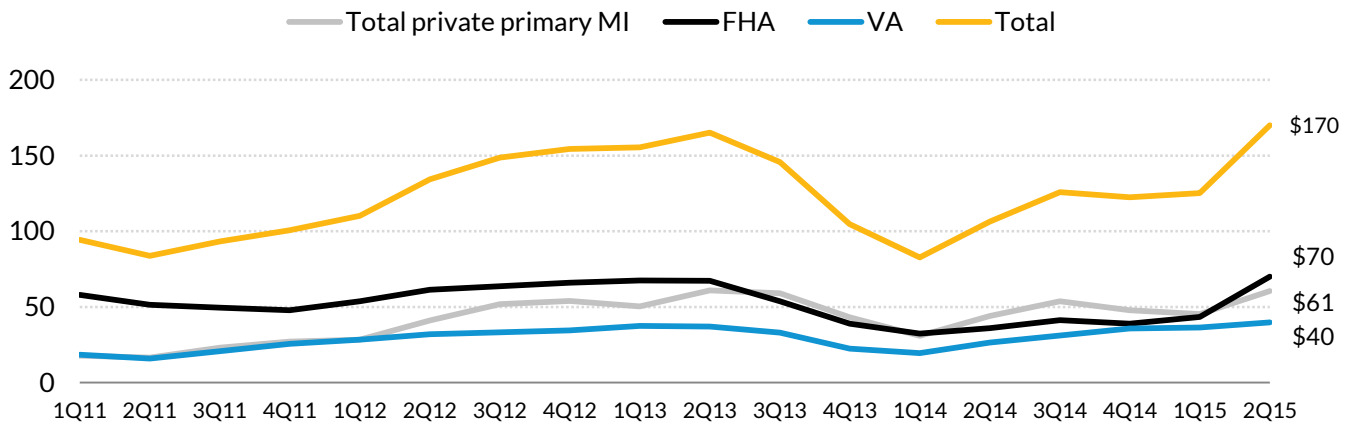
Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

July 2015

AGENCY ISSUANCE MORTGAGE INSURANCE ACTIVITY

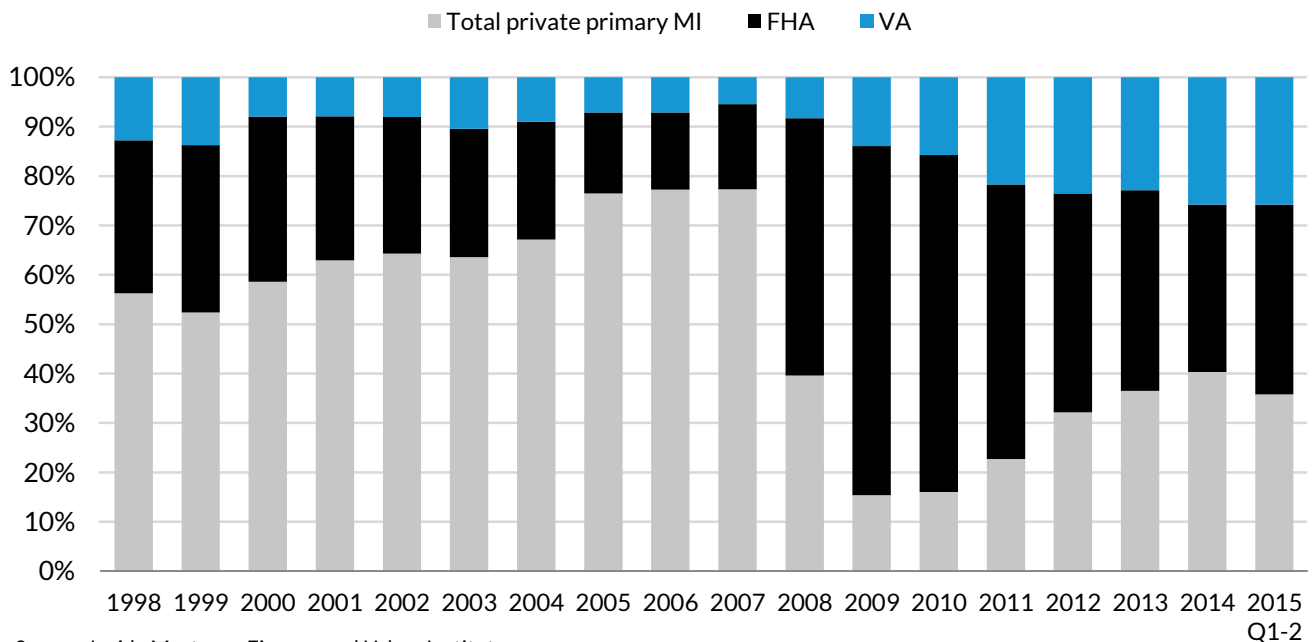
MI Activity

Mortgage insurance activity via the FHA, VA, and private insurers jumped by 36 percent over the previous quarter in 2015 Q2 to a total of \$170.2 billion. While all three MI channels experienced growth, FHA led the pack, bolstered by lower premiums. FHA's market share now stands at 38 percent year to date, surpassing the private insurance market. VA lending is on pace for the agency's highest origination volume on record.



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 a move announced by President Obama just after the new year, annual premiums were cut by 50 bps. We expect this reduction to significantly mitigate FHA's problem of adverse selection, in which lower-FICO borrowers disproportionately gravitate to FHA financing over GSE with PMI. As shown in the bottom table, a borrower putting 3.5% down will now find FHA more economical regardless of their FICO score.

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	3.89%
FHA	3.50%

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*	3.75	3.00	2.50	1.75	1.75	1.25	1.00	1.00
PMI Annual MIP	1.48	1.48	1.48	1.31	1.31	1.10	1.10	1.05
Monthly Payment								
FHA	\$1,273	\$1,273	\$1,273	\$1,273	\$1,273	\$1,273	\$1,273	\$1,273
PMI	\$1,533	\$1,512	\$1,498	\$1,442	\$1,442	\$1,386	\$1,379	\$1,369
PMI Advantage	(\$260)	(\$239)	(\$225)	(\$169)	(\$169)	(\$113)	(\$106)	(\$96)

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. The PMI monthly payment calculation does not include special programs like Fannie Mae's MyCommunitMortgage (MCM) 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 20; we use the updated LLPAs that will be introduced in September 2015.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FANNIE MAE COMPOSITION

Since 2008, the composition of loans purchased by Fannie Mae has shifted towards borrowers with higher FICO scores. For example, 71.2 percent of loans originated from 2011 to Q2 2014 were for borrowers with FICO scores above 750, compared to 40.7 percent of borrowers in 2007 and 36.6 percent from 1999-2004.

Balance on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	9.4%	15.0%	4.5%	4.5%	33.4%
	700 to 750	9.2%	14.2%	3.4%	3.2%	30.0%
	>750	15.5%	16.1%	2.7%	2.3%	36.6%
	Total	34.0%	45.3%	10.7%	10.0%	100.0%
2005	≤700	12.6%	15.5%	3.4%	2.3%	33.8%
	700 to 750	9.8%	13.3%	2.1%	1.4%	26.6%
	>750	17.4%	18.6%	2.1%	1.4%	39.6%
	Total	39.7%	47.5%	7.7%	5.1%	100.0%
2006	≤700	12.7%	16.1%	3.5%	2.2%	34.5%
	700 to 750	8.9%	13.5%	2.2%	1.3%	25.9%
	>750	15.8%	20.1%	2.4%	1.4%	39.6%
	Total	37.3%	49.8%	8.1%	4.9%	100.0%
2007	≤700	10.8%	15.2%	5.3%	3.1%	34.3%
	700 to 750	7.8%	12.5%	3.0%	1.7%	25.0%
	>750	15.2%	20.1%	3.3%	2.0%	40.7%
	Total	33.8%	47.7%	11.6%	6.9%	100.0%
2008	≤700	7.6%	7.2%	2.9%	2.0%	19.7%
	700 to 750	7.8%	11.9%	4.1%	2.7%	26.4%
	>750	19.0%	25.7%	5.8%	3.4%	53.9%
	Total	34.4%	44.7%	12.7%	8.1%	100.0%
2009-2010	≤700	3.6%	2.9%	0.3%	0.2%	6.9%
	700 to 750	8.2%	10.8%	1.7%	0.8%	21.5%
	>750	32.3%	33.5%	4.0%	1.7%	71.5%
	Total	44.1%	47.2%	6.0%	2.7%	100.0%
2011-2Q14	≤700	2.6%	3.7%	0.7%	1.0%	8.1%
	700 to 750	5.6%	9.4%	2.4%	3.3%	20.7%
	>750	25.4%	32.2%	6.7%	6.9%	71.2%
	Total	33.6%	45.3%	9.8%	11.3%	100.0%
Total		36.0%	46.0%	9.6%	8.4%	100.0%

Sources: Fannie Mae and Urban Institute.

Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q2 2014. The percentages are weighted by origination balance.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FANNIE MAE DEFAULT RATE

While the composition of Fannie Mae loans originated in 2007 was similar to that of 2004 and earlier vintage years, 2007 loans experienced a much higher default rate due to the sharp drop in home values in the recession. Originations from 2009 and later have pristine credit characteristics and a more favorable home price environment, contributing to very low default rates.

Default Rate on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	3.6%	4.4%	6.0%	6.9%	4.7%
	700 to 750	1.1%	1.8%	2.8%	2.9%	1.9%
	>750	0.4%	0.8%	1.5%	1.7%	0.7%
	Total	1.5%	2.3%	3.8%	4.5%	2.4%
2005	≤700	13.3%	17.0%	19.5%	21.2%	16.2%
	700 to 750	6.1%	9.6%	12.4%	12.9%	8.7%
	>750	2.1%	4.4%	7.0%	7.9%	3.7%
	Total	6.7%	10.0%	14.1%	15.2%	9.2%
2006	≤700	17.7%	22.0%	25.2%	26.8%	21.0%
	700 to 750	8.4%	13.0%	15.7%	16.3%	11.8%
	>750	2.8%	5.7%	8.9%	9.4%	4.9%
	Total	9.2%	13.0%	17.8%	19.0%	12.3%
2007	≤700	19.0%	23.0%	30.2%	30.7%	23.5%
	700 to 750	8.2%	13.2%	18.8%	18.3%	12.6%
	>750	2.7%	5.6%	10.7%	10.6%	5.2%
	Total	9.2%	13.1%	21.7%	21.6%	13.3%
2008	≤700	13.8%	16.5%	22.5%	22.6%	17.0%
	700 to 750	4.8%	7.7%	12.4%	12.2%	8.0%
	>750	1.2%	2.7%	6.1%	6.7%	2.8%
	Total	4.8%	6.2%	11.8%	12.5%	6.9%
2009-2010	≤700	3.2%	4.2%	4.2%	5.2%	3.7%
	700 to 750	0.8%	1.6%	2.1%	2.4%	1.4%
	>750	0.2%	0.5%	0.9%	1.2%	0.4%
	Total	0.5%	0.9%	1.4%	1.8%	0.8%
2011-2Q14	≤700	0.6%	0.7%	0.6%	0.7%	0.6%
	700 to 750	0.1%	0.2%	0.3%	0.3%	0.2%
	>750	0.0%	0.0%	0.1%	0.1%	0.0%
	Total	0.1%	0.1%	0.2%	0.2%	0.1%
Total		2.1%	3.2%	5.2%	4.7%	3.1%

Sources: Fannie Mae and Urban Institute.

Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q2 2014, with performance information on these loans through 1Q2015. Default is defined as more than six months delinquent or disposed of via short sales, third-party sales, deeds-in-lieu of foreclosure, or real estate owned (REO acquisitions).

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FREDDIE MAC COMPOSITION

Since 2008, the composition of loans purchased by Freddie Mac has shifted towards borrowers with higher FICO scores. For example, 67.4 percent of loans originated from 2011 to Q1 2014 were for borrowers with FICO scores above 750, compared to 38.9 percent in 2007 and 33.2 percent from 1999-2004.

Balance on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	7.7%	16.6%	5.5%	5.6%	35.4%
	700 to 750	8.9%	15.9%	3.4%	3.2%	31.4%
	>750	13.6%	15.5%	2.3%	1.8%	33.2%
	Total	30.2%	48.0%	11.2%	10.6%	100.0%
2005	≤700	10.6%	16.9%	3.3%	2.9%	33.8%
	700 to 750	9.4%	15.5%	2.0%	1.7%	28.5%
	>750	15.8%	18.9%	1.7%	1.4%	37.7%
	Total	35.7%	51.3%	7.0%	6.0%	100.0%
2006	≤700	10.0%	17.3%	3.4%	3.2%	34.0%
	700 to 750	8.3%	16.1%	1.9%	1.5%	27.9%
	>750	14.4%	20.7%	1.7%	1.3%	38.2%
	Total	32.7%	54.1%	7.1%	6.1%	100.0%
2007	≤700	9.2%	15.5%	4.6%	4.8%	34.0%
	700 to 750	7.5%	14.3%	2.6%	2.6%	27.0%
	>750	14.3%	19.5%	2.5%	2.6%	38.9%
	Total	31.0%	49.4%	9.7%	9.9%	100.0%
2008	≤700	7.3%	8.7%	3.1%	2.1%	21.3%
	700 to 750	9.1%	13.1%	3.7%	2.4%	28.3%
	>750	21.6%	21.5%	4.7%	2.6%	50.4%
	Total	38.1%	43.3%	11.5%	7.2%	100.0%
2009-2010	≤700	3.9%	3.2%	0.3%	0.2%	7.7%
	700 to 750	9.3%	11.9%	1.7%	0.9%	23.8%
	>750	32.4%	31.0%	3.6%	1.4%	68.5%
	Total	45.7%	46.1%	5.6%	2.5%	100.0%
2011-1Q14	≤700	3.2%	3.4%	0.7%	0.9%	8.3%
	700 to 750	7.2%	11.3%	2.5%	3.3%	24.3%
	>750	24.5%	31.4%	5.6%	5.9%	67.4%
	Total	35.0%	46.2%	8.8%	10.1%	100.0%
Total		34.7%	47.8%	9.2%	8.3%	100.0%

Sources: Freddie Mac and Urban Institute.

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q1 2014. The percentages are weighted by origination balance.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

FREDDIE MAC DEFAULT RATE

While the composition of Freddie Mac loans originated in 2007 was similar to that of 2004 and earlier vintage years, 2007 loans experienced a much higher default rate due to the sharp drop in home values in the recession. Originations from 2009 and later have pristine credit characteristics and a more favorable home price environment, contributing to very low default rates.

Default Rate on 30-year, Fixed-rate, Full-doc, Amortizing Loans

Origination Year	Origination FICO	LTV				Total
		≤70	70 to 80	80 to 90	>90	
1999-2004	≤700	2.9%	4.0%	6.3%	6.7%	4.5%
	700 to 750	1.0%	1.6%	2.6%	2.8%	1.6%
	>750	0.4%	0.8%	1.4%	1.7%	0.7%
	Total	1.2%	2.2%	4.1%	4.7%	2.4%
2005	≤700	11.5%	15.8%	18.7%	20.2%	15.1%
	700 to 750	5.5%	9.1%	12.1%	12.4%	8.3%
	>750	1.9%	4.4%	6.9%	7.9%	3.6%
	Total	5.7%	9.5%	14.0%	15.2%	8.8%
2006	≤700	15.2%	20.2%	23.4%	25.7%	19.6%
	700 to 750	7.7%	12.3%	14.7%	14.7%	11.2%
	>750	2.6%	5.8%	8.5%	9.2%	4.8%
	Total	7.8%	12.3%	17.4%	19.3%	11.6%
2007	≤700	16.1%	21.6%	27.1%	29.7%	22.0%
	700 to 750	7.5%	13.0%	17.3%	17.6%	12.3%
	>750	2.5%	6.1%	9.9%	11.0%	5.4%
	Total	7.8%	13.0%	20.0%	21.7%	12.9%
2008	≤700	12.3%	16.2%	22.2%	21.4%	16.3%
	700 to 750	4.4%	8.0%	12.4%	11.1%	7.7%
	>750	1.3%	3.1%	6.5%	6.0%	2.8%
	Total	4.2%	7.2%	12.6%	12.3%	7.1%
2009-2010	≤700	2.5%	3.6%	4.1%	4.3%	3.1%
	700 to 750	0.6%	1.4%	1.7%	2.0%	1.2%
	>750	0.2%	0.5%	0.9%	1.0%	0.3%
	Total	0.5%	0.9%	1.3%	1.7%	0.8%
2011-1Q14	≤700	0.3%	0.4%	0.2%	0.4%	0.3%
	700 to 750	0.1%	0.1%	0.2%	0.2%	0.1%
	>750	0.0%	0.0%	0.0%	0.1%	0.0%
	Total	0.1%	0.1%	0.1%	0.1%	0.1%
Total		2.1%	3.9%	6.1%	6.5%	3.7%

Sources: Freddie Mae and Urban Institute.

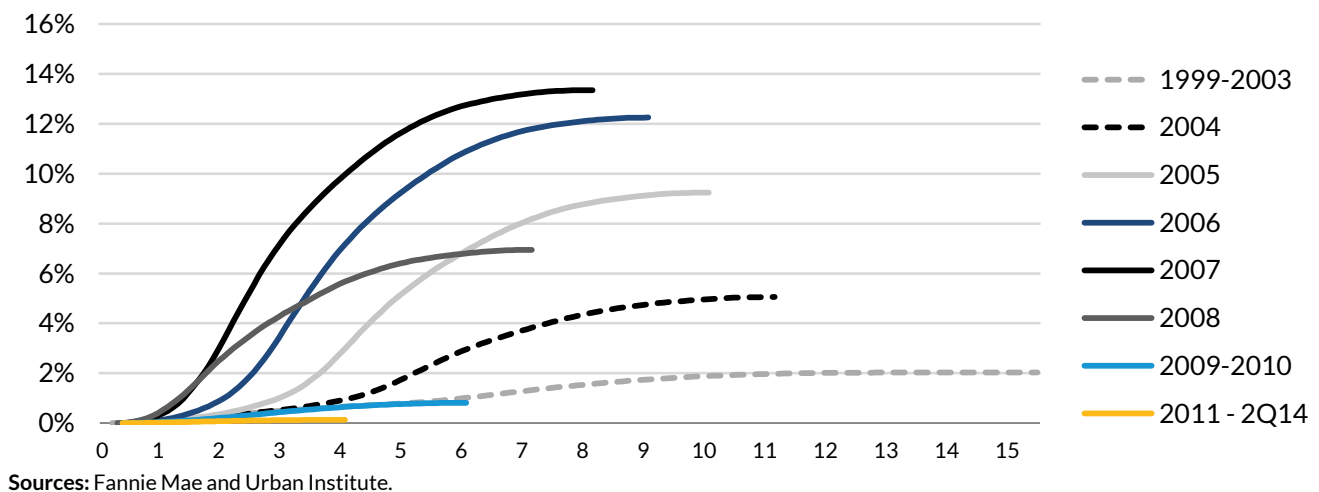
Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q1 2014, with performance information on these loans through Q3 2014.. Default is defined as six months delinquent or disposed of via short sales, third-party sales, deeds-in-lieu of foreclosure, or real estate owned (REO acquisitions).

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

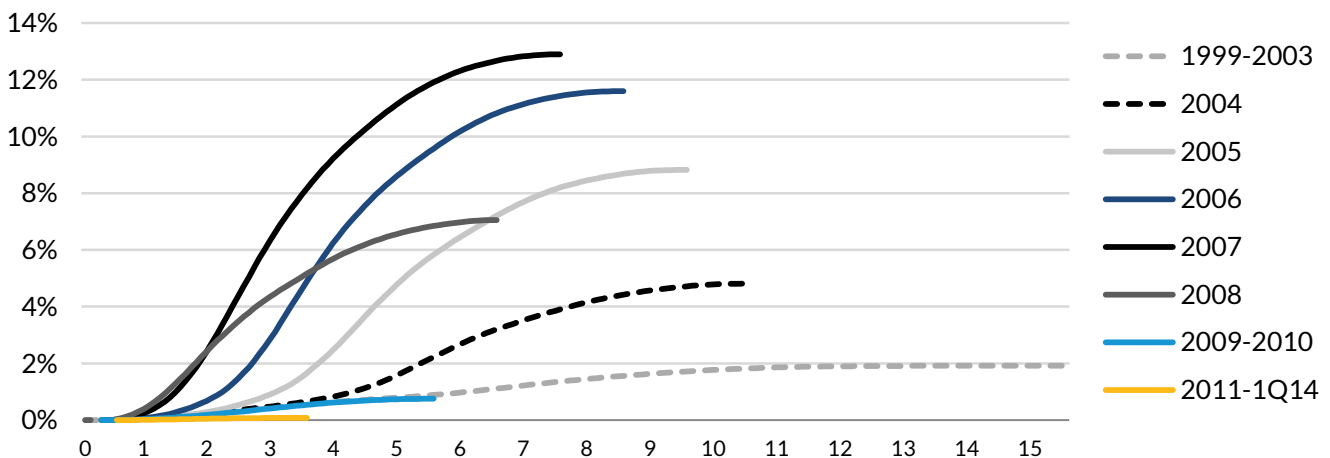
DEFAULT RATE BY VINTAGE

With cleaner books of business and the housing recovery underway, default rates for the GSEs are much lower than they were just a few years ago. For Fannie Mae and Freddie Mac's 1999-2003 vintages, cumulative defaults total around 2 percent, while cumulative defaults for the 2007 vintage are around 13 percent. For both Fannie Mae and Freddie Mac, cumulative defaults from post-2009 vintages are on pace to fall below pre-2003 levels. For Fannie loans 49 months after origination, the cumulative default rate from 2009-10 and 2011-Q2 2014 are about 0.65 and 0.13 percent, respectively, compared to the cumulative default rate from 1999-2003 of 0.66 percent. For Freddie loans 43 months after origination, the cumulative default rates total 0.54 percent from 2009-10 and 0.08 percent from 2011-Q1 2014, compared to the rate from 1999-2003 of 0.57 percent.

Fannie Mae Cumulative Default Rate by Vintage Year



Freddie Mac Cumulative Default Rate by Vintage Year

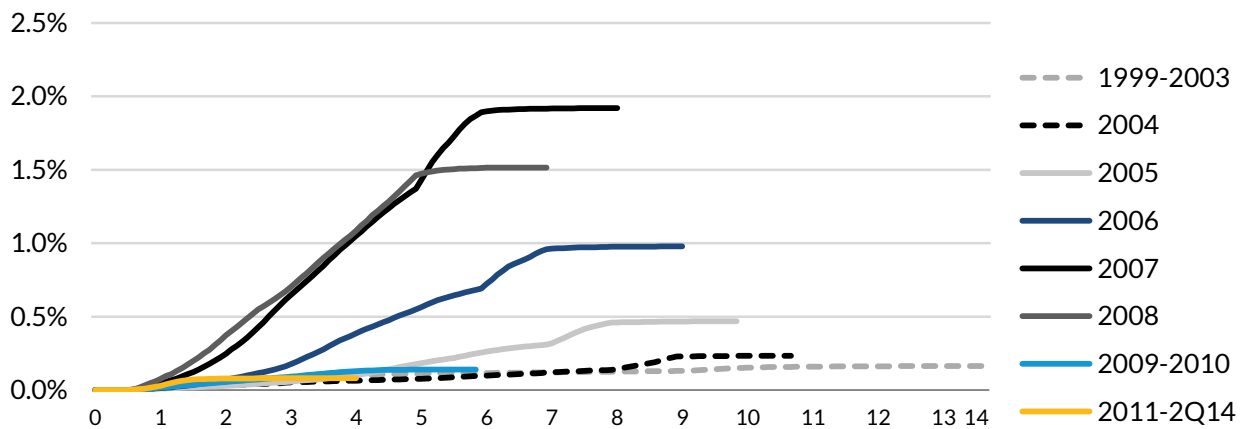


SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

REPURCHASE RATE BY VINTAGE

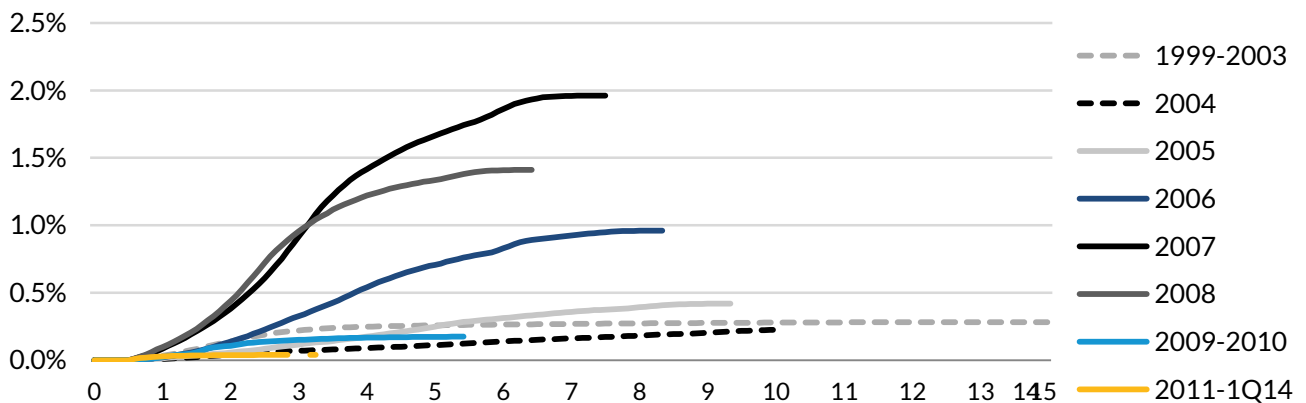
These figures show the cumulative percentage of fixed-rate, full documentation, amortizing 30-year loans of a given vintage that Fannie and Freddie have put back to lenders due to reps and warrants violations. Note that the put-backs are generally quite small, with the exception of the 2006-2008 vintages. These numbers exclude loans put back through global settlements, which are not done at the loan level. Moreover, lenders' attitudes are formed by the total share of put-backs on their books. The database used in this analysis, while very characteristic of new production, excludes many loans that are likely to be put back, including limited documentation loans, non-traditional products (such as interest-only loans), and loans with pool insurance policies.

Fannie Mae Repurchase Rate by Vintage Year



Sources: Fannie Mae and Urban Institute.

Freddie Mac Repurchase Rate by Vintage Year



Sources: Freddie Mac and Urban Institute.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

LOSS SEVERITY

Both Fannie Mae and Freddie Mac's credit data now include the status of the loan after it has experienced a credit event (default). A credit event is defined as a delinquency of 180 days or more, a deed-in-lieu, short sale, foreclosure sale or REO sale. We look at each of the loans and categorize them as to their present status—for Fannie Mae loans (top table) 19.2 percent are current, 10 percent are prepaid, 16.3 percent are still in the pipeline and 54.5 percent have already liquidated (deed-in-lieu, short sale, foreclosure sale, REO sale). Freddie Mac's results (bottom table) are very similar. The right side of both tables shows the severity of all loans that have liquidated, broken down by LTV buckets: total Fannie and Freddie severities are in the 44-45 percent range.

Fannie Mae - Liquidation Rates and Severities for D180+ loans

Year	Paths for D180+ Loans (% of total count)				Severity for Already Liquidated Loans			
	Paths With No Eventual Loss		Paths With Eventual Loss					
	Current	Prepay	Still In The Pipeline	% Already Liquidated Loans	<=60	60-80	>80	Total
1999-2004	15.30%	16.46%	13.90%	54.35%	29.6%	42.4%	25.0%	34.4%
2005	19.58%	6.06%	15.70%	58.66%	39.1%	51.0%	37.6%	47.2%
2006	20.85%	4.82%	15.02%	59.31%	48.5%	56.6%	40.4%	52.6%
2007	23.44%	4.88%	16.65%	55.04%	47.9%	56.4%	39.6%	50.3%
2008	24.31%	6.41%	18.93%	50.35%	42.9%	52.9%	32.3%	43.7%
2009-2010	18.39%	10.74%	29.73%	41.14%	41.5%	46.1%	27.3%	41.2%
2011-2Q14	13.98%	9.11%	55.53%	21.37%	46.3%	62.9%	48.7%	55.9%
Total	19.18%	10.00%	16.34%	54.49%	41.6%	51.3%	32.8%	44.7%

Freddie Mac - Liquidation Rates and Severities for D180+ loans

Year	Paths for D180+ Loans (% of total count)				Severity for Already Liquidated Loans			
	Paths With No Eventual Loss		Paths With Eventual Loss					
	Current	Prepay	Still In The Pipeline	% Already Liquidated Loans	<=60	60-80	>80	Total
1999-2004	12.60%	14.78%	15.81%	56.82%	25.2%	40.5%	26.9%	33.7%
2005	16.42%	5.40%	19.02%	59.16%	35.2%	49.5%	36.6%	45.7%
2006	16.88%	4.22%	18.13%	60.77%	42.9%	54.6%	39.0%	50.6%
2007	17.82%	4.05%	19.59%	58.53%	46.0%	54.8%	39.0%	49.0%
2008	19.92%	5.66%	22.34%	52.08%	38.7%	51.2%	34.8%	44.5%
2009-2010	14.67%	9.44%	34.40%	41.49%	26.2%	37.0%	18.2%	32.4%
2011-1Q14	12.59%	10.03%	58.57%	18.82%	9.9%	26.4%	10.4%	19.1%
Total	15.72%	8.35%	18.75%	57.19%	37.7%	50.0%	33.6%	44.1%

Sources: Freddie Mac and Fannie Mae Single Family Loan-Level Dataset and Urban Institute calculations.

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q1 2014, with performance information on these loans through Q3 2014. Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q2 2014, with performance information on these loans through Q1 2015.

SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

LOSS COMPONENTS

The tables below show the components of loss among Fannie and Freddie loans that have experienced a loss, broken down by vintage year. Loss is defined as the unpaid principal balance of the loan less proceeds from the sale of the home and any recoveries from mortgage insurance or other items, plus expenses and interest loss. For the entire period, for all Fannie Mae loans that experienced losses (top table) the average severity was 48.5 percent. Approximately 8 percent of the loans that liquidated did not experience a loss. Thus the overall severity was 44.7 percent, the number we saw in the top table of page 40. Freddie Mac numbers in the bottom table are very similar.

Fannie Mae - Loss Component for already liquidated loans

Liquidation with A Positive Loss							
Year	Mean defaulted UPB (\$)	Net sale proceeds / defaulted UPB	Credit Proceeds/ defaulted UPB	Other Proceeds / defaulted UPB	Expenses / defaulted UPB	Interest Loss / defaulted UPB	Severity
1999-2004	109535.09	-65.8%	-8.5%	-1.5%	25.6%	8.1%	43.3%
2005	172060.89	-60.5%	-4.8%	-0.8%	15.1%	7.9%	49.2%
2006	186563.62	-56.3%	-4.7%	-0.8%	12.8%	8.7%	53.7%
2007	195785.72	-56.0%	-7.3%	-1.0%	13.3%	8.7%	51.3%
2008	192591.78	-59.6%	-8.6%	-0.9%	14.6%	8.1%	45.6%
2009-2010	184483.88	-62.8%	-4.0%	-0.5%	12.7%	5.9%	44.1%
2011-2Q14	152885.29	-39.8%	-3.8%	-0.3%	5.2%	4.2%	63.5%
Total	159475	-59.8%	-6.7%	-1.0%	16.3%	8.2%	48.5%

Note: Expenses include Foreclosure cost, repair cost, asset recovery cost, miscellaneous expenses and tax costs.

Freddie Mac - Loss Component for already liquidated loans

Liquidation with A Positive Loss							
Year	Mean defaulted UPB (\$)	Net sale proceeds / defaulted UPB	MI recoveries / defaulted UPB	Non-MI recoveries / defaulted UPB	Expenses / defaulted UPB	Interest Loss / defaulted UPB	Severity
1999-2004	110375.31	-69.8%	-10.7%	-2.4%	13.6%	10.3%	40.9%
2005	173987.09	-63.2%	-5.5%	-1.5%	9.0%	9.2%	48.1%
2006	187118.27	-59.5%	-5.3%	-1.4%	8.3%	10.2%	52.2%
2007	189150.12	-58.6%	-8.0%	-1.5%	8.4%	10.4%	50.7%
2008	198813.97	-62.7%	-7.7%	-1.5%	8.3%	10.2%	46.5%
2009-2010	192710.67	-74.5%	-3.9%	-1.3%	8.4%	7.0%	35.6%
2011-1Q14	167539.46	-80.6%	-7.1%	-1.6%	9.0%	5.3%	25.0%
Total	162218.28	-63.0%	-7.4%	-1.7%	9.6%	10.0%	47.6%

Sources: Freddie Mac and Fannie Mae Single Family Loan-Level Dataset and Urban Institute calculations.

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q1 2014, with performance information on these loans through Q3 2014. Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q2 2014, with performance information on these loans through Q1 2015.

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Date: August 27, 2015

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Authors: Laurie Goodman, Jim Parrott, and Jun Zhu

Date: August 18, 2015

[**The Credit box Shows Early Signs of Loosening: Evidence from the Latest HCAI Update**](#)

Authors: Bing Bai, Wei Li, and Laurie Goodman

Date: July 21, 2015

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Date: July 14, 2015

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Author: Laurie Goodman

Date: May 14, 2015

[**Wielding a Heavy Enforcement Hammer Has Unintended Consequences for the FHA Mortgage Market**](#)

Author: Laurie Goodman

Date: May 7, 2015

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