



# HOUSING FINANCE AT A GLANCE

A MONTHLY CHARTBOOK

May 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](mailto:ataglance@urban.org).

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

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# INTRODUCTION

## **May Chartbook blogpost: FHA's premium cut has pushed refinance activity to a 20-month high**

Our just released May chartbook blogpost analyzes early data on refinance activity for FHA mortgages and concludes that the FHA premium cut has led to a significant increase in refinance activity. Two key indicators of FHA refinance activity – volume and the share of total originations that are refinances – have both spiked as borrowers continue to take advantage of the premium cut as well as continued low rates.

## **Laurie Goodman's testimony on TILA-RESPA Integrated Disclosure**

Laurie Goodman, director of the Housing Finance Policy Center, recently [testified](#) before the House Financial Services Committee's subcommittee on Housing and Insurance on the topic of TILA-RESPA Integrated Disclosure. Goodman recommended that CFPB create a "hold-harmless" period to give industry enough time to work out any operational issues. Absent this, severe penalties for errors under TILA may cause lenders to reduce originations, ultimately harming borrowers. Goodman also reminded the committee that TRID nevertheless is a minor operational issue in comparison to the unresolved issue of housing finance reform.

## **Privatizing Fannie and Freddie: Be Careful What You Ask For**

Urban Institute senior fellow Jim Parrot and Moody's Analytics chief economist Mark Zandi just [released a paper](#) on the economics of recapitalizing and privatizing the GSEs. The authors concluded that high costs of recapitalization and privatization – mainly because of likely higher capital requirements and repayment of Treasury's financial support – would force the GSEs to charge a much higher guarantee-fee than the current system.

## **A Closer Look at the Data on First-Time Homebuyers**

This issue brief uses new public data to [calculate the share of first-time homebuyers](#) for 2013 and 2014. These calculations are based on complete loan-level single-family purchase-money data released by the GSEs and Ginnie Mae. This analysis reveals that although the first-time homebuyer share increased from 2011 to 2014 for both GSE and FHA-backed loans, the national share of first-time homebuyers (with either a GSE or FHA loan) was 54 percent in 2014, down from 57 percent in 2011. This decline was

likely driven by a decline in FHA's market share.

## **Overly aggressive enforcement of False Claims Act and FIRREA is restricting access to credit**

In this issue brief Laurie Goodman [examines the impact of uncertain litigation risk](#) on lender willingness to originate FHA loans. Goodman concludes that the significant, easily triggered liability of both the False Claims Act and the Financial Institutions Reform, Recovery, and Enforcement Act have had a chilling effect on FHA lending, causing some lenders to do less origination to reduce their litigation risk.

## **May Sunset Seminar: Mortgage Servicing Current State and Future Trends**

HFPC's May sunset seminar brought together a diverse panel of experts to [discuss the current state of mortgage servicing and future trends](#). Two takeaways emerged, (i) Mortgage servicing regulations have not yet fully caught up with the changing industry landscape and, (ii) Regulatory uncertainty and the skyrocketing cost of servicing non-performing mortgages has made lenders wary of making loans with even a slight probability of default.

### **INSIDE THIS ISSUE**

- The GSE portfolio wind-downs have flattened in recent months (page 19)
- Guaranty fees were largely unchanged in the first quarter of 2015; LLPAs set for a refresh in September (page 20)
- Freddie Mac released the details of a new, \$31.8 billion risk-sharing deal in late April; its first deal using actual, rather than pre-set severities (page 21)
- The HARP deadline has been extended, but less than 500,000 borrowers remain eligible and in-the-money (page 25)
- Agency gross issuance is up 55 percent in the first four months of 2015 (pages 30, 31)
- The VA share of mortgage insurance activity grew to nearly a third of the market in 2015 Q1 (page 32)
- Special quarterly feature includes GSE default, composition, loss severity, and repurchase indicators (pages 34-41)

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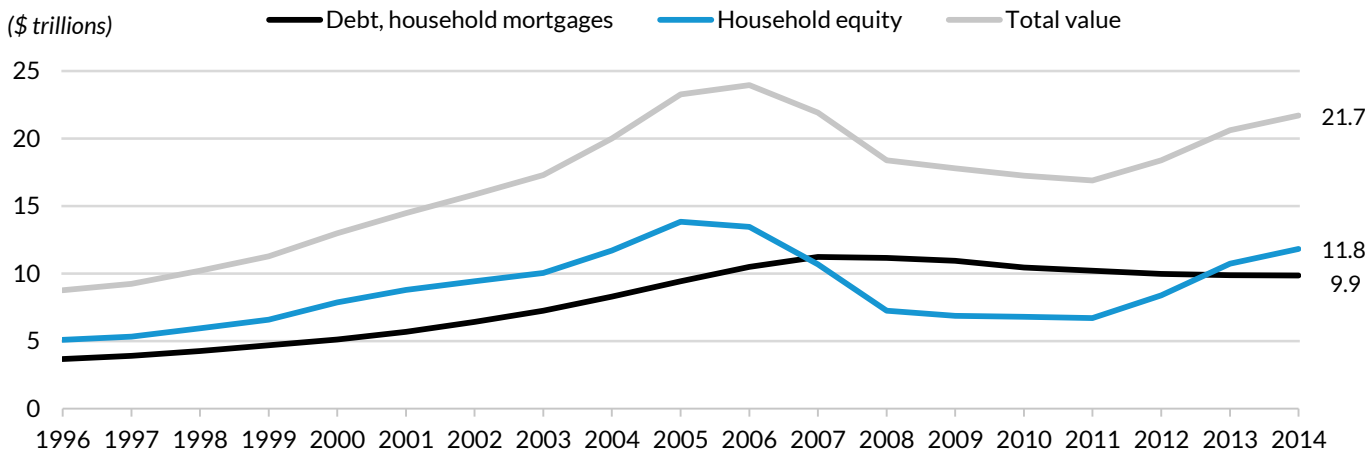
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## OVERVIEW

# MARKET SIZE OVERVIEW

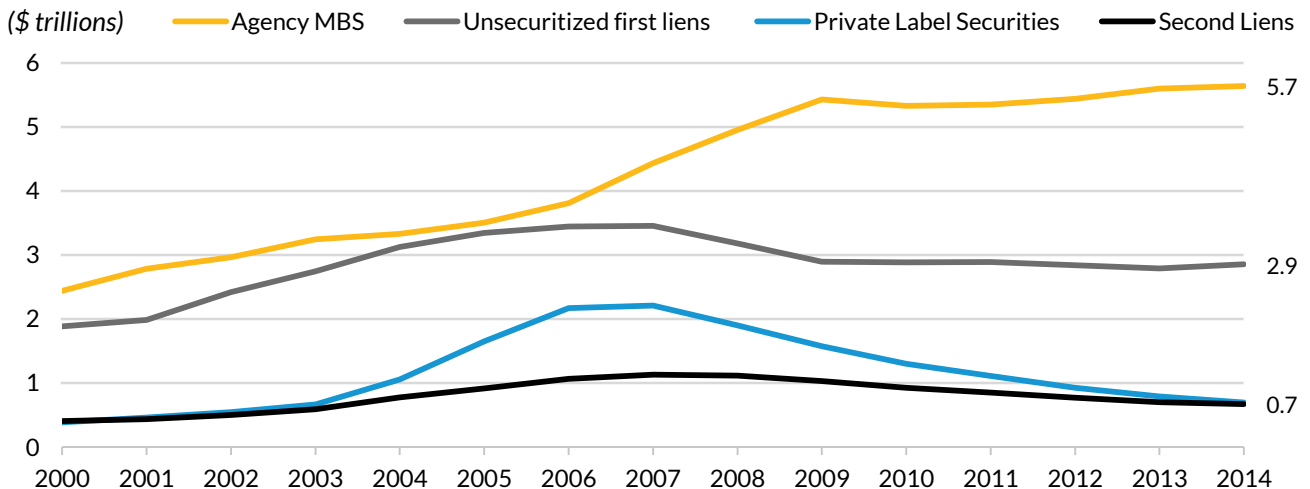
According to the Federal Reserve's Flow of Funds report, the total value of US housing has increased each of the last eight quarters led by growing household equity, and the trend continued in the latest report, covering Q4 2014. Total debt remained flat at \$9.86 trillion, while household equity increased by \$288 billion, bringing the total value of the housing market to \$21.69 trillion. Agency MBS made up 57.2 percent of the total mortgage market (a slight increase from the prior quarter), private-label securities made up 7.1 percent, and unsecuritized first liens at the GSEs, commercial banks, savings institutions, and credit unions made up 28.9 percent. Second liens comprised the remaining 6.8 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.

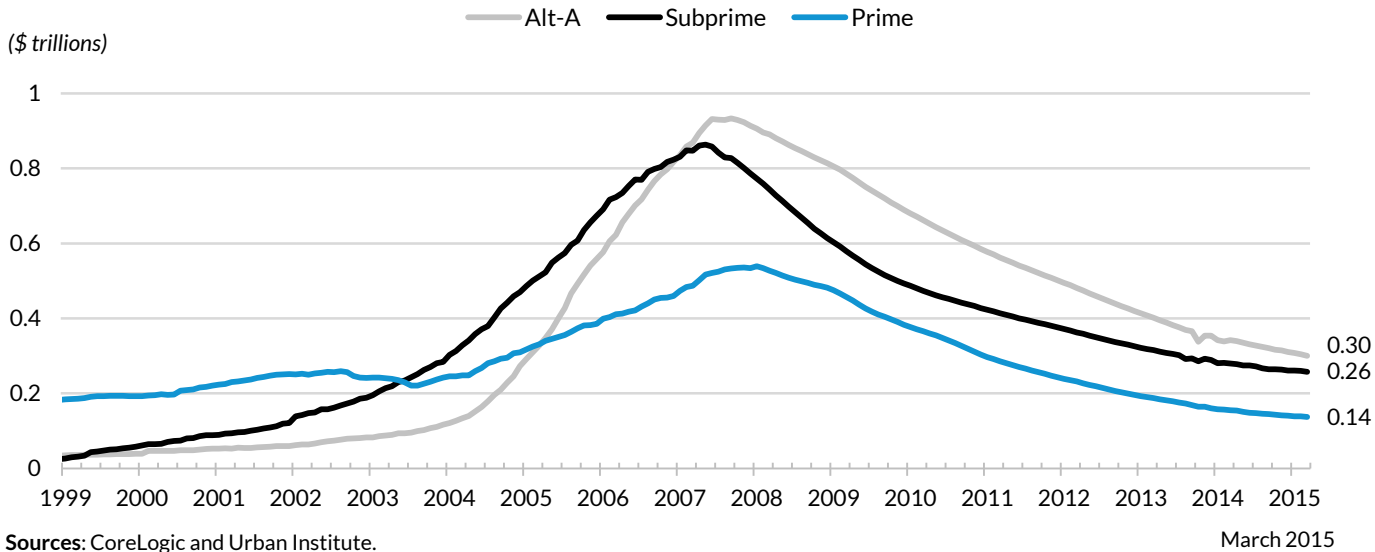
Note: Unsecuritized first liens includes loans held by commercial banks, GSEs, savings institutions, and credit unions.

## OVERVIEW

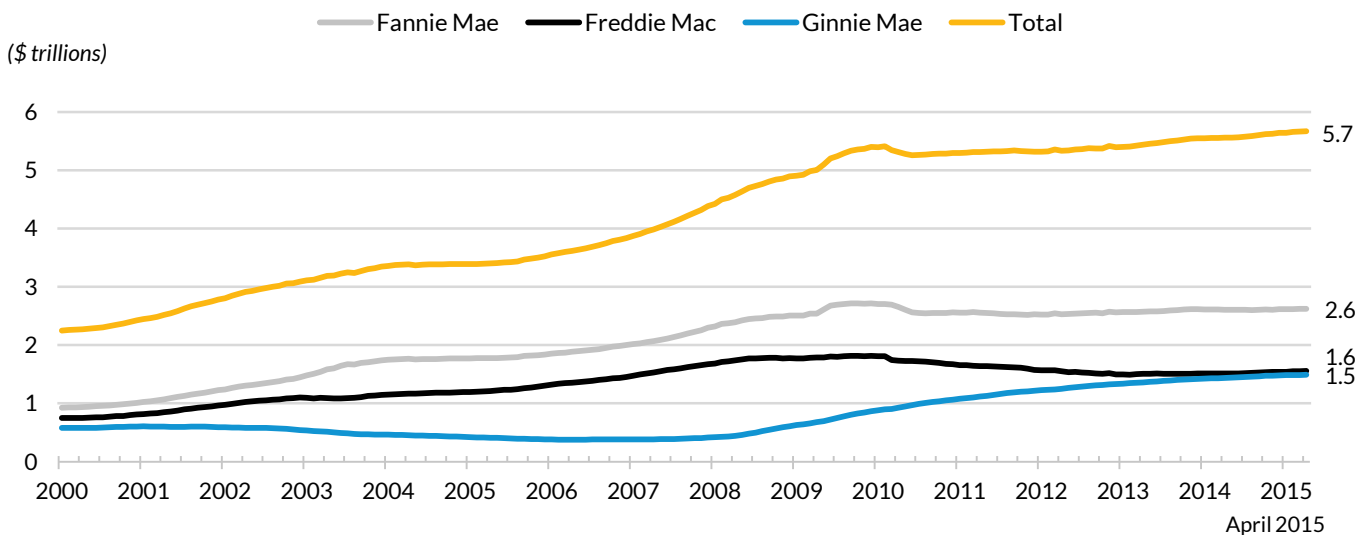
# MARKET SIZE OVERVIEW

As of March 2015, debt in the private-label securitization market totaled \$694 billion and was split among prime (19.7 percent), Alt-A (43.2 percent), and subprime (37.1 percent) loans. In April 2015, outstanding securities in the agency market totaled \$5.66 trillion and were 46.2 percent Fannie Mae, 27.5 percent Freddie Mac, and 26.3 percent Ginnie Mae.

## Private-Label Securities by Product Type



## Agency Mortgage-Backed Securities

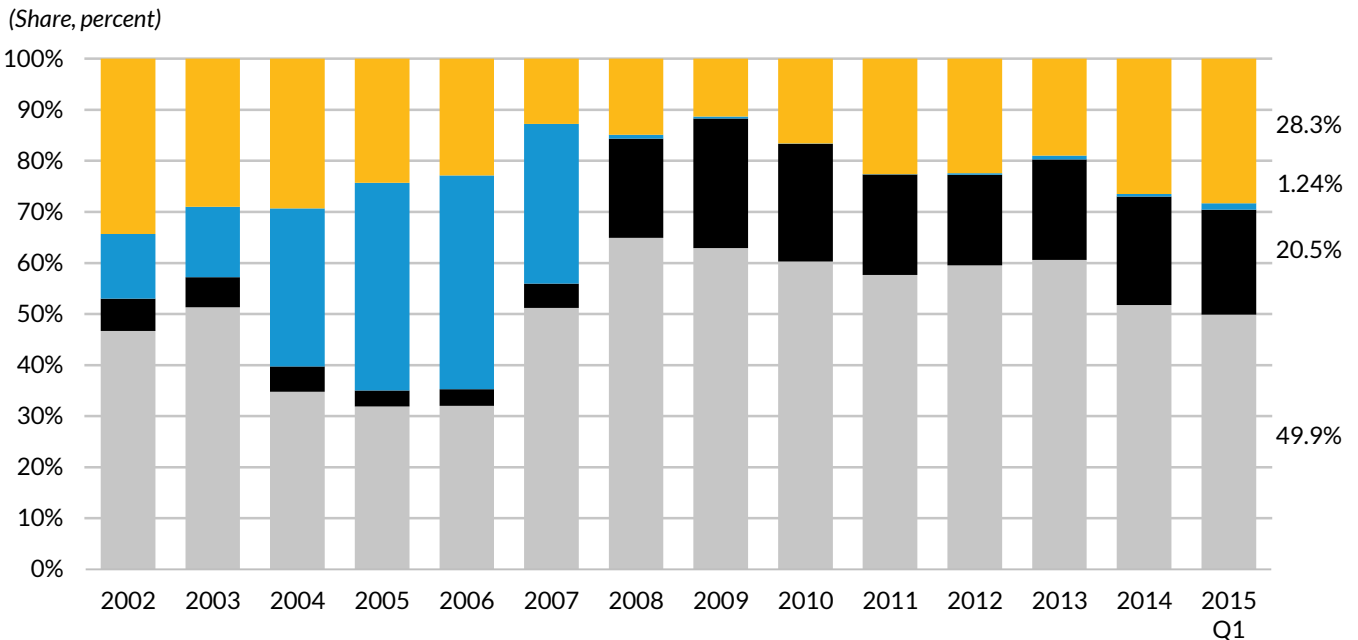
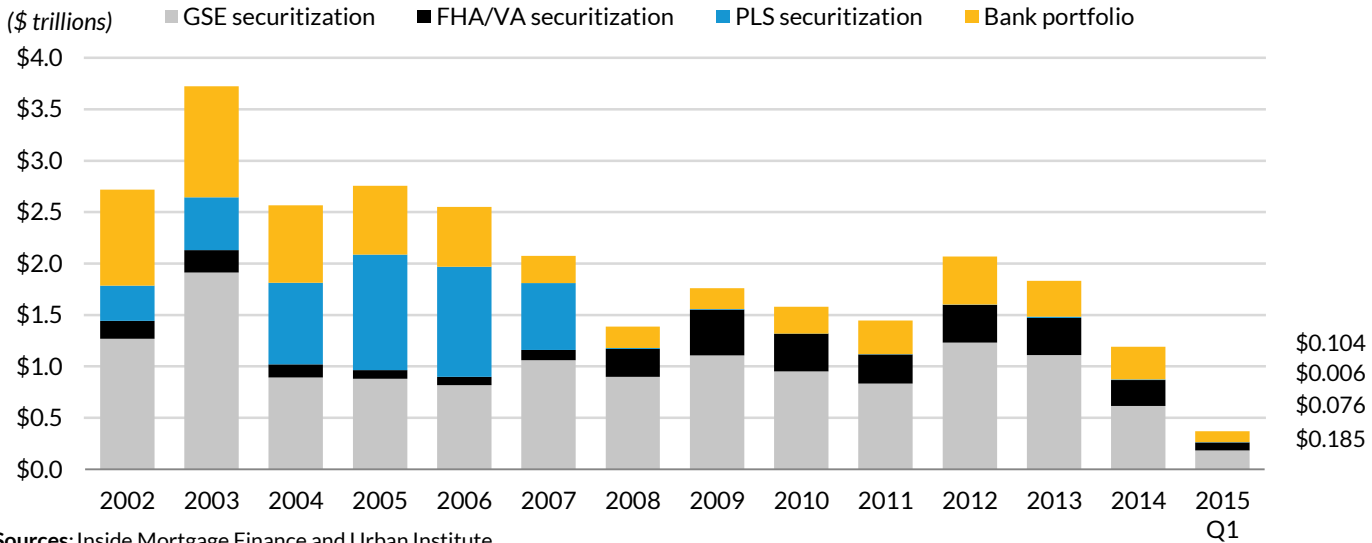


## OVERVIEW

# 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.



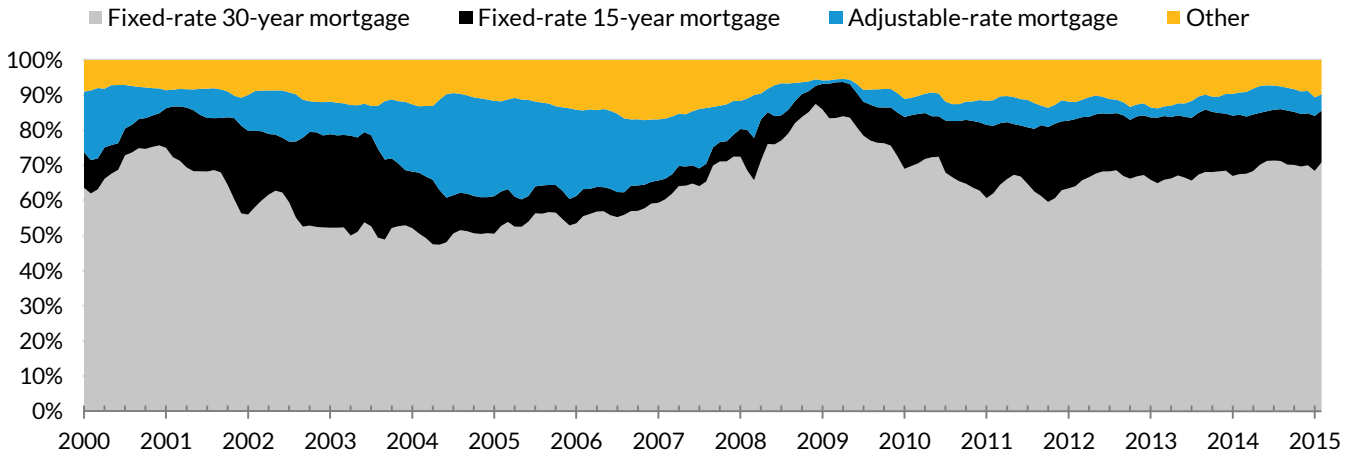


## OVERVIEW

# MORTGAGE ORIGINATION PRODUCT TYPE

Adjustable-rate mortgages (ARMs) accounted for as much as 29 percent of all new originations during the peak of the recent housing bubble in 2005 (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 March 2014. Since then they began to edge down again to 4.6 percent of total originations in February 2015, 28 percent lower than year ago level. 15-year fixed-rate mortgages (FRMs), predominantly a refinance product, comprise 14.7 percent of new originations. If we exclude refinances (bottom chart), the share of 30-year FRMs in November 2014 stood at 88.8 percent, 15-year FRMs at 5.3 percent, and ARMs at 4.8 percent.

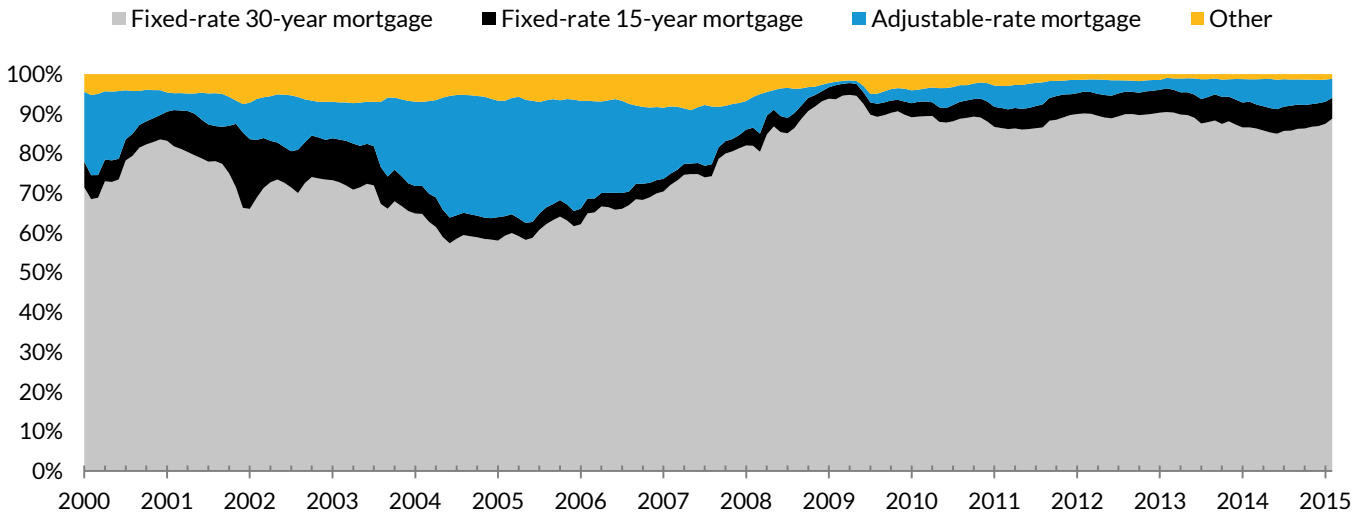
## All Originations



Sources: CoreLogic Prime Servicing and Urban Institute.

February 2015

## Purchase Loans Only



Sources: CoreLogic Prime Servicing and Urban Institute.

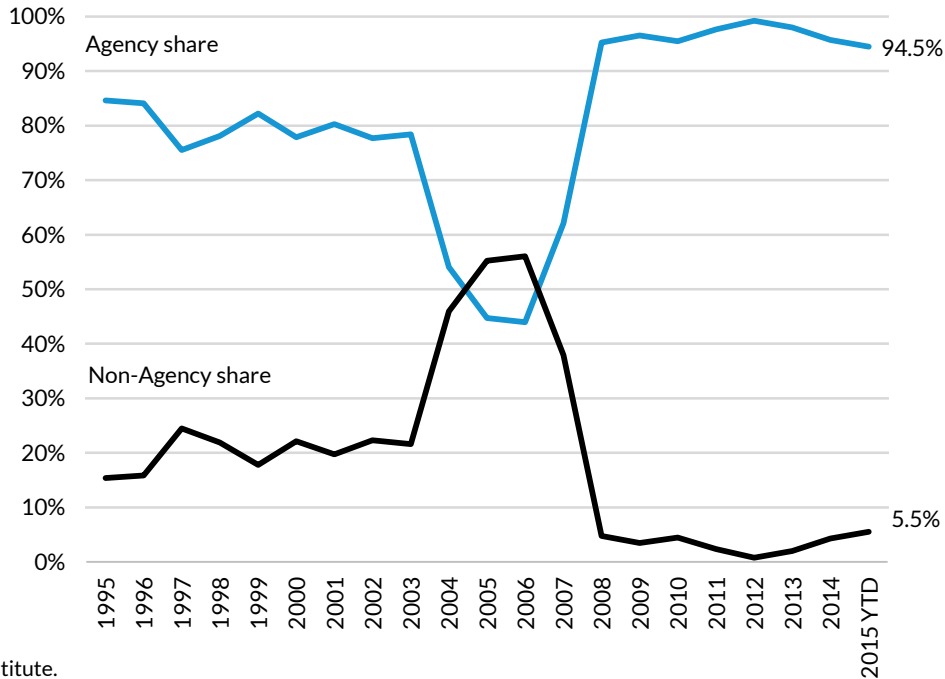
February 2015

## OVERVIEW

# SECURITIZATION VOLUME AND COMPOSITION

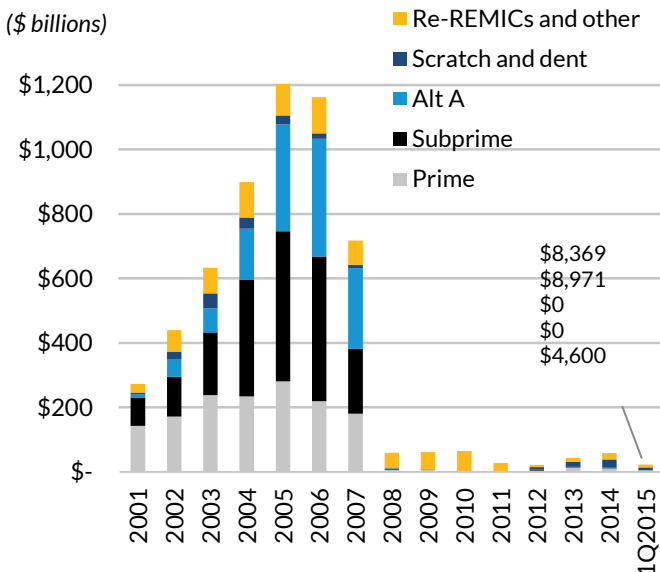
## Agency/Non-Agency Share of Residential MBS Issuance

The non-agency share of mortgage securitizations was 5.5% through April 2015, a large pick up over previous years. 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 2015 is \$4.6 billion or \$18.4 billion annualized, a post-crisis high and more than double last year's \$9 billion. However, this is tiny compared to pre-crisis levels. To put in the perspective, in 2001, prime origination totaled \$142 billion.



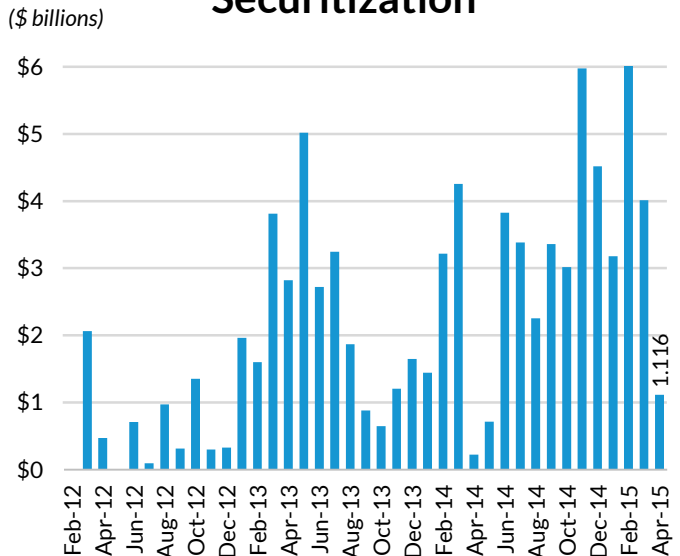
Sources: Inside Mortgage Finance and Urban Institute.

## Non-Agency MBS Issuance



Sources: Inside Mortgage Finance and Urban Institute.

## Monthly Non-Agency Securitization



Sources: Inside Mortgage Finance and Urban Institute.

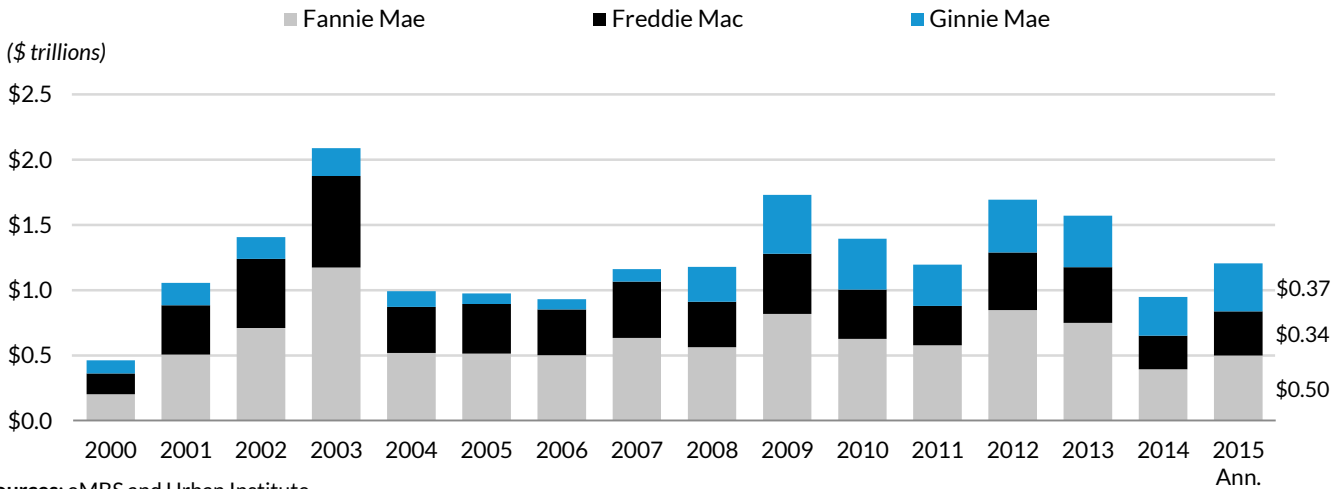
Note: Monthly figures equal total non-agency MBS issuance minus Re-REMIC issuance.

## OVERVIEW

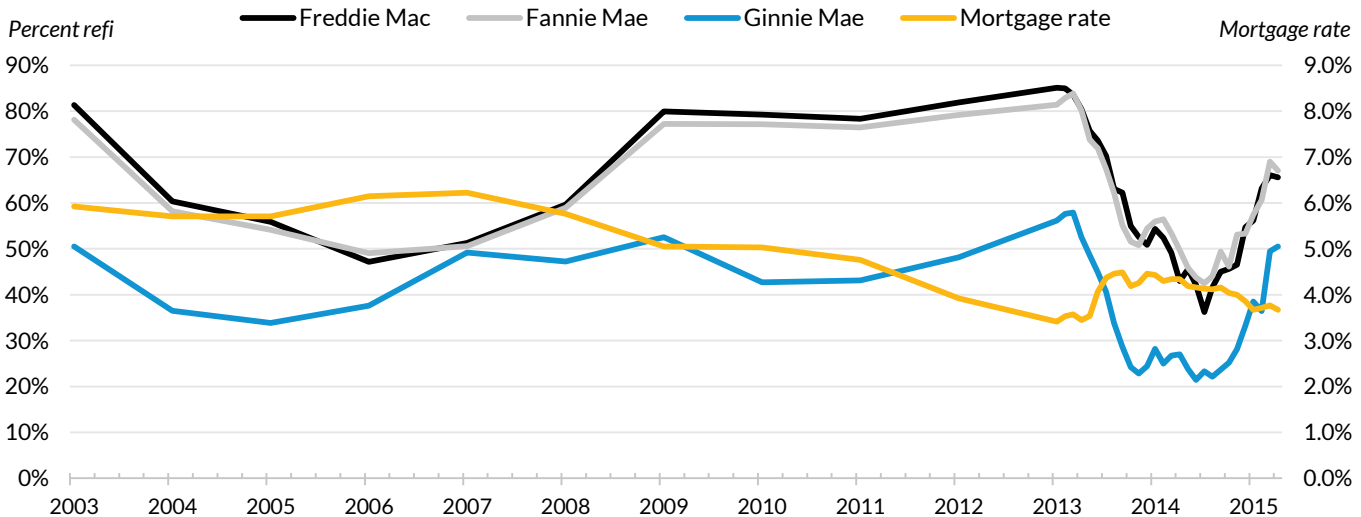
# AGENCY ACTIVITY: VOLUMES AND PURCHASE/ REFI COMPOSITION

Agency issuance totaled \$401.6 billion in the first four months of 2015, up from \$259.5 billion for the same period a year ago. In April 2015, refinances stayed high at 67 and 66 percent of the GSEs' business, as the average mortgage rate remained low. 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 reached 51 percent in April 2015, its highest level in nearly two years.

## Agency Gross Issuance



## Percent Refi at Issuance



April 2015

# STATE OF THE MARKET

# MORTGAGE ORIGINATION PROJECTIONS

With interest rates relatively low and a sizeable drop in FHA premiums, Fannie Mae, Freddie Mac, and the MBA project higher origination volume in 2015 over 2014 levels (about \$55, \$50, and \$109 billion higher, respectively). All three expect a similar rate of refinances, with slight variances due to different interest rate assumptions. Home sales were slightly softer in 2014 than in 2013, while housing starts picked up some steam. Both housing starts and home sales are expected to strengthen considerably in 2015 and even further in 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	272	330	288	56	54	52
2015 Q2	329	390	353	42	43	41
2015 Q3	333	325	318	41	32	34
2015 Q4	304	255	272	42	32	36
2016 Q1	261	250	251	46	32	39
2016 Q2	321	390	319	33	32	30
2016 Q3	320	385	316	31	29	30
2016 Q4	304	250	284	33	25	32
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	1239	1300	1231	45	41	41
FY 2016	1206	1275	1170	35	30	32

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 4.2%, respectively. For 2016, their respective projections are 4.2%, 4.9%, and 5.0%.

## 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	5363	4920	443
FY 2015	1155	1150	1095	5659	5600	5593	5093	500
FY 2016	1319	1400	1228	5886	5800	5975	5416	559

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

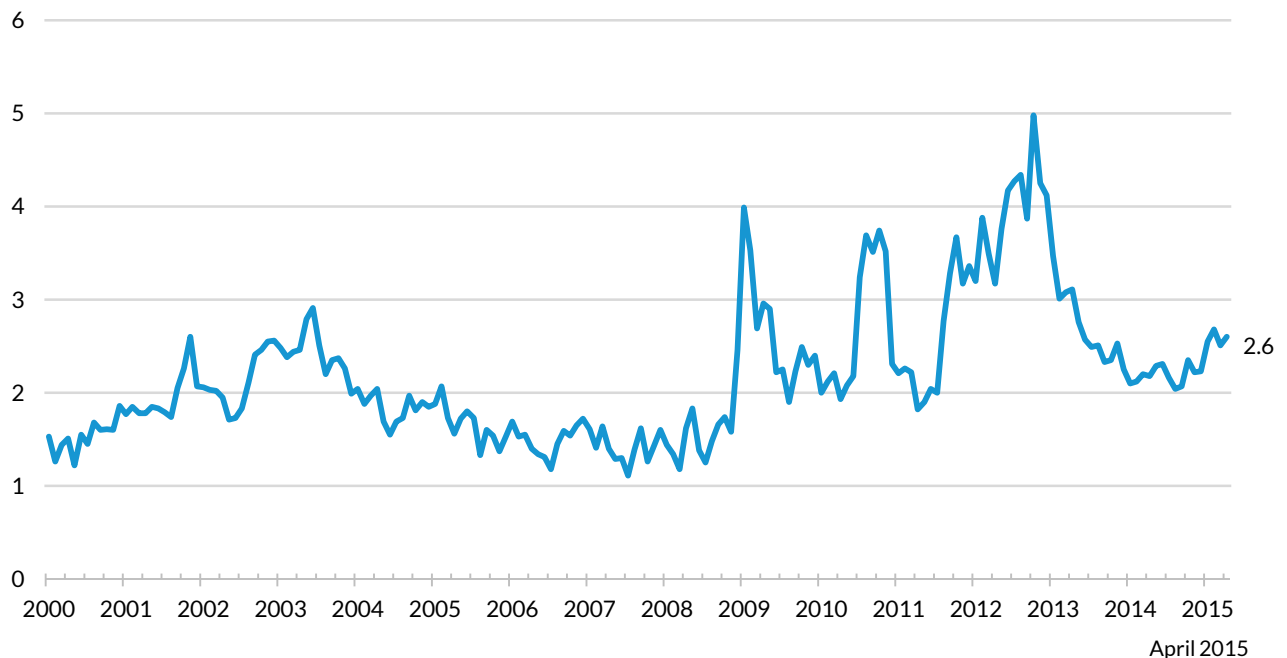
## ORIGINATOR PROFITABILITY

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 2.6 in April 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.

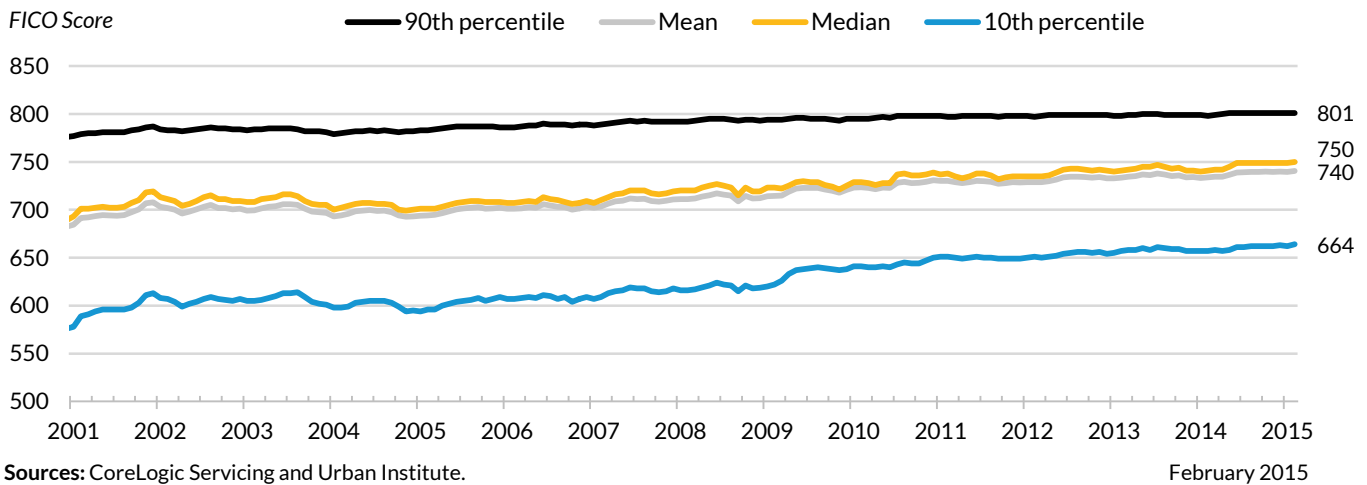
**Note:** OPUC stands for "originator profits and unmeasured costs" as discussed in [Fuster et al. \(2013\)](#). The OPUC series is a monthly (4-week moving) average.

# STATE OF THE MARKET

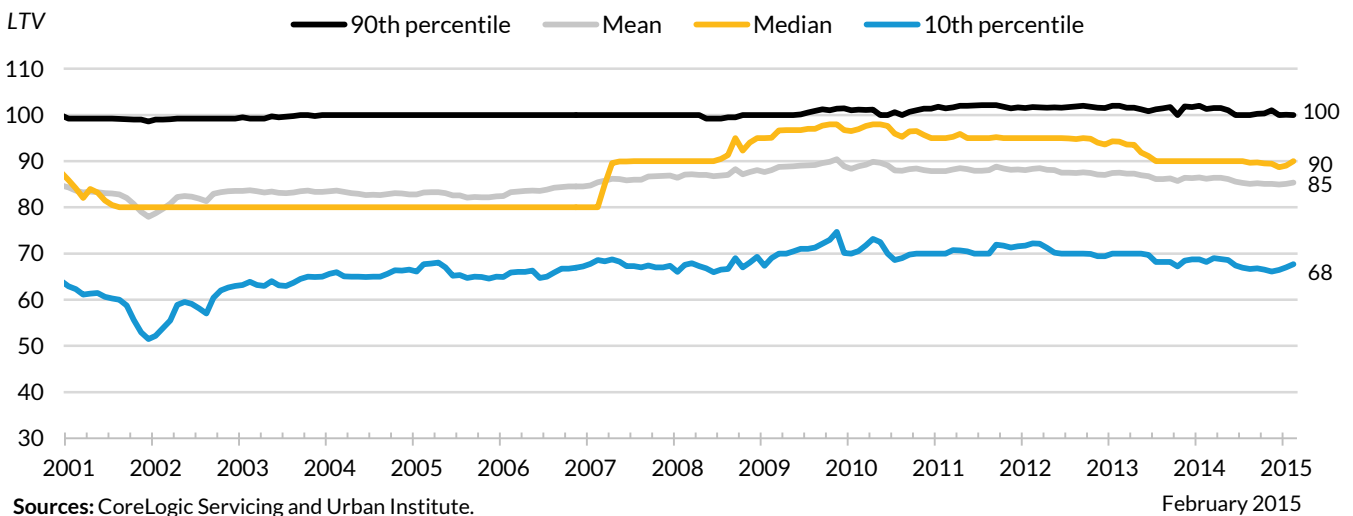
# CREDIT AVAILABILITY FOR PURCHASE LOANS

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 46 and 49 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 664 as of February 2015. Prior to the housing crisis, this threshold held steady in the low 600s. LTV levels at origination remain relatively high, averaging 85, which reflects the large number of FHA purchase originations.

## Borrower FICO Score at Origination



## Combined LTV at Origination

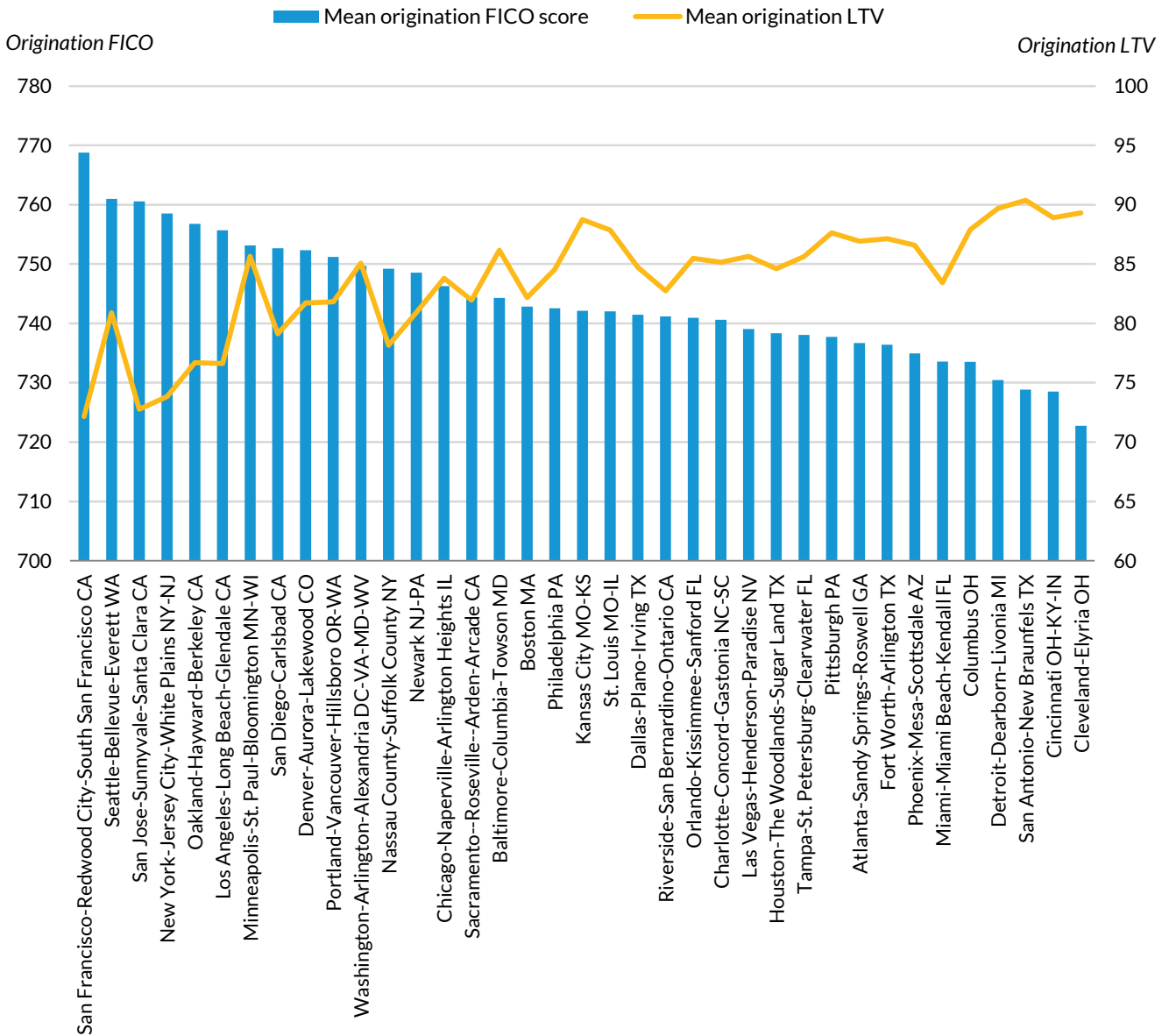


# STATE OF THE MARKET

# 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 769, while in Cleveland-Elyria, OH 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 February 2015 and Urban Institute.  
 Note: Purchase-only loans.

# STATE OF THE MARKET

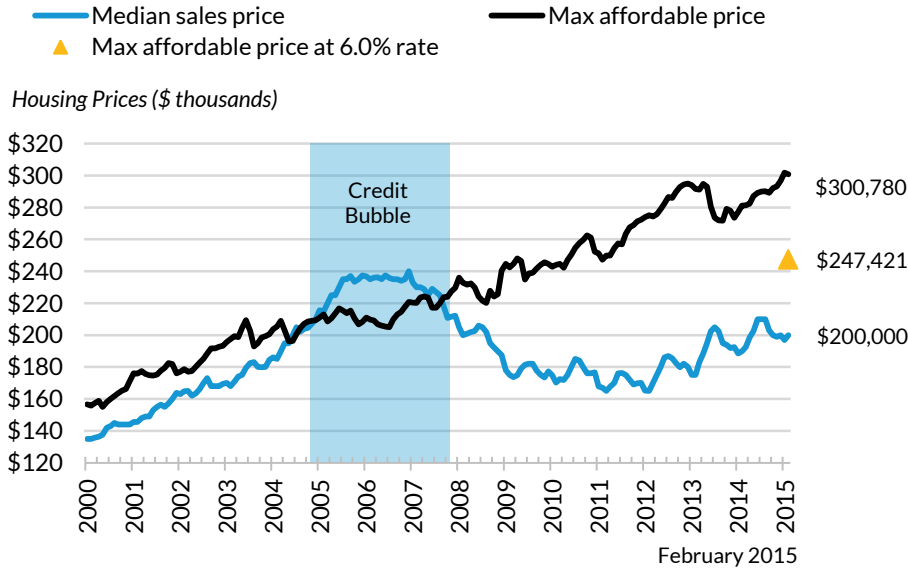
# HOUSING AFFORDABILITY

## National Housing Affordability Over Time

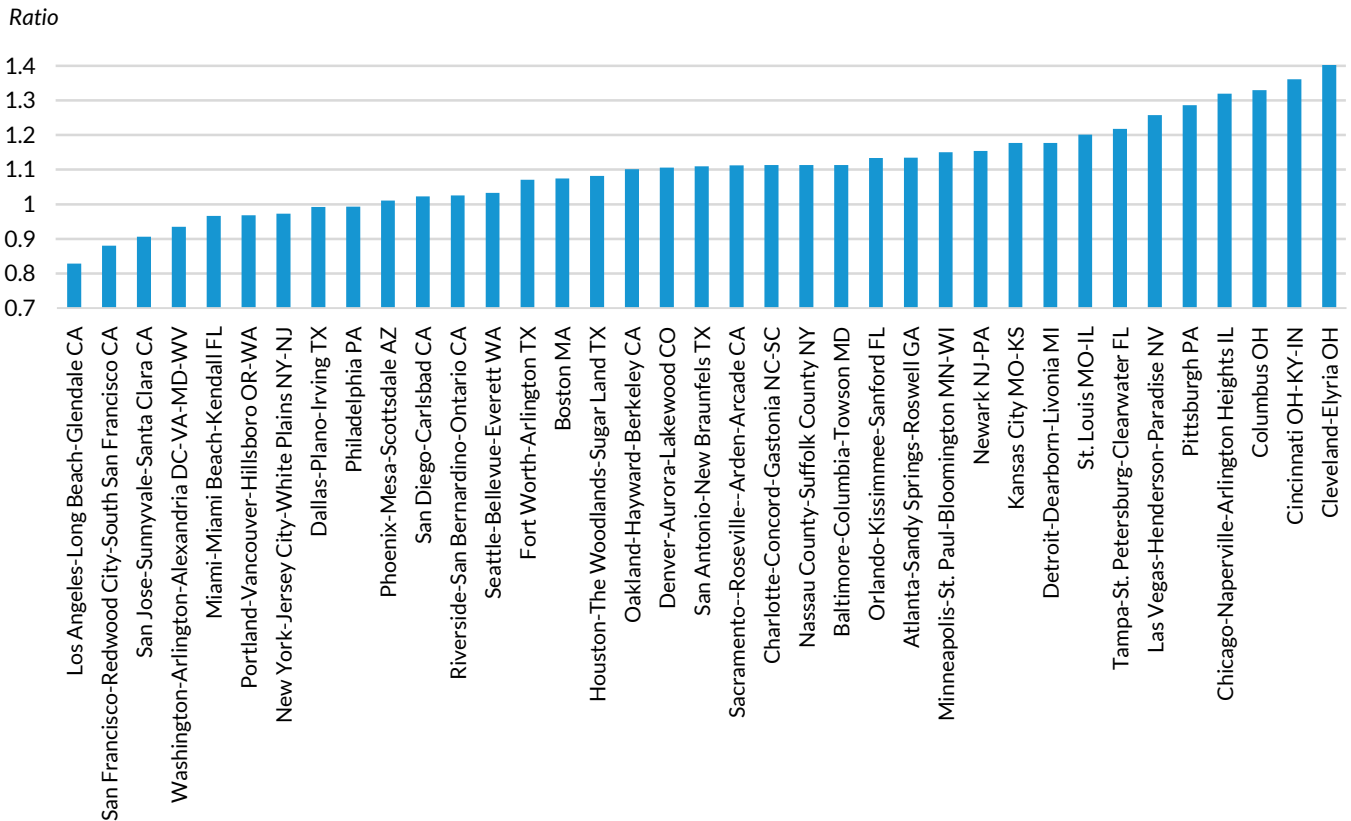
Home prices are still very affordable by historical standards, despite increases over the last three years. Even if interest rates rose to 6 percent, affordability would be at the long term historical average. The bottom chart shows that some areas are much more affordable than others.

**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 February 2015 than in 2000-03.



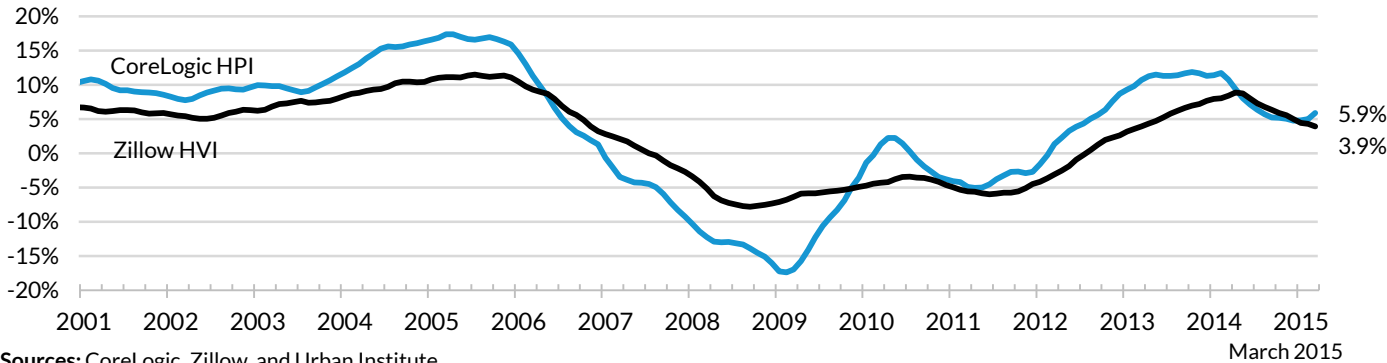
# STATE OF THE MARKET

# 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.

March 2015

## Changes in CoreLogic HPI for Top MSAs

Despite rising 31.6 percent from the trough, national house prices still must grow 12.3 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 39 and 43 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	98.8	-32.3	31.6	12.3
New York-Jersey City-White Plains NY-NJ	115.1	-19.9	23.0	1.5
Los Angeles-Long Beach-Glendale CA	181.4	-39.0	47.6	11.0
Chicago-Naperville-Arlington Heights IL	65.1	-36.4	18.7	32.5
Atlanta-Sandy Springs-Roswell GA	40.7	-33.5	39.2	8.0
Washington-Arlington-Alexandria DC-VA-MD-WV	159.5	-33.3	28.1	17.0
Houston-The Woodlands-Sugar Land TX	44.5	-12.7	35.4	-15.4
Phoenix-Mesa-Scottsdale AZ	126.3	-52.7	51.8	39.2
Riverside-San Bernardino-Ontario CA	194.4	-53.3	49.6	43.1
Dallas-Plano-Irving TX	38.3	-13.7	32.5	-12.5
Minneapolis-St. Paul-Bloomington MN-WI	73.8	-30.4	23.8	16.1
Seattle-Bellevue-Everett WA	94.0	-31.7	38.4	5.9
Denver-Aurora-Lakewood CO	36.4	-14.4	41.0	-17.2
Baltimore-Columbia-Towson MD	128.6	-25.6	6.5	26.1
San Diego-Carlsbad CA	148.6	-38.1	40.1	15.4
Anaheim-Santa Ana-Irvine CA	162.3	-36.8	40.2	12.9

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

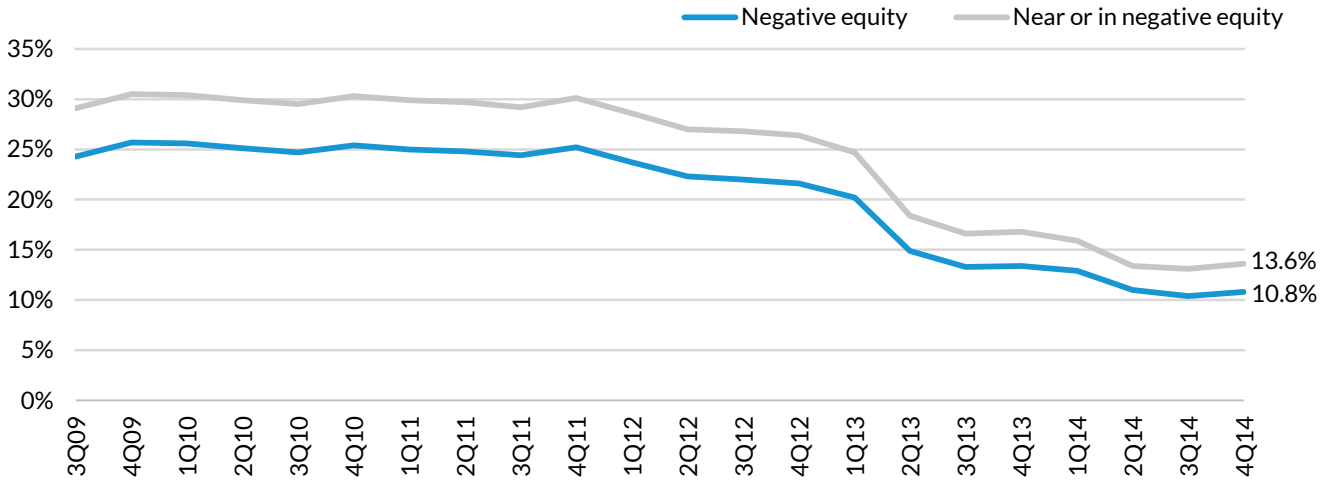
Note: This table includes the largest 15 Metropolitan areas by mortgage count.

## STATE OF THE MARKET

# NEGATIVE EQUITY & SERIOUS DELINQUENCY

## Negative Equity Share

With housing prices appreciating through the first three quarters of 2014, residential properties in negative equity (LTV greater than 100) as a share of all residential properties with a mortgage has dropped to 10.3 percent. Residential properties in near negative equity (LTV between 95 and 100) comprise another 2.6 percent.

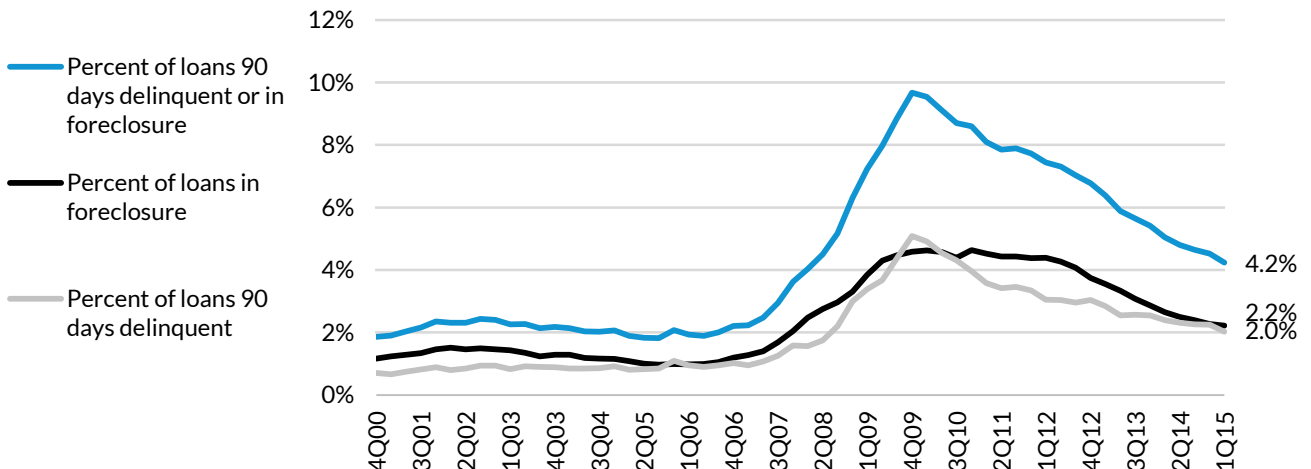


Sources: CoreLogic and Urban Institute.

Note: CoreLogic negative equity rate is the percent of all residential properties with a mortgage in negative equity. Loans with negative equity refer to loans above 100 percent LTV. Loans near negative equity refer to loans above 95 percent LTV.

## 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 4.2% in the first quarter of 2015, down from 5.0% for the same quarter a year earlier.



Sources: Mortgage Bankers Association and Urban Institute.

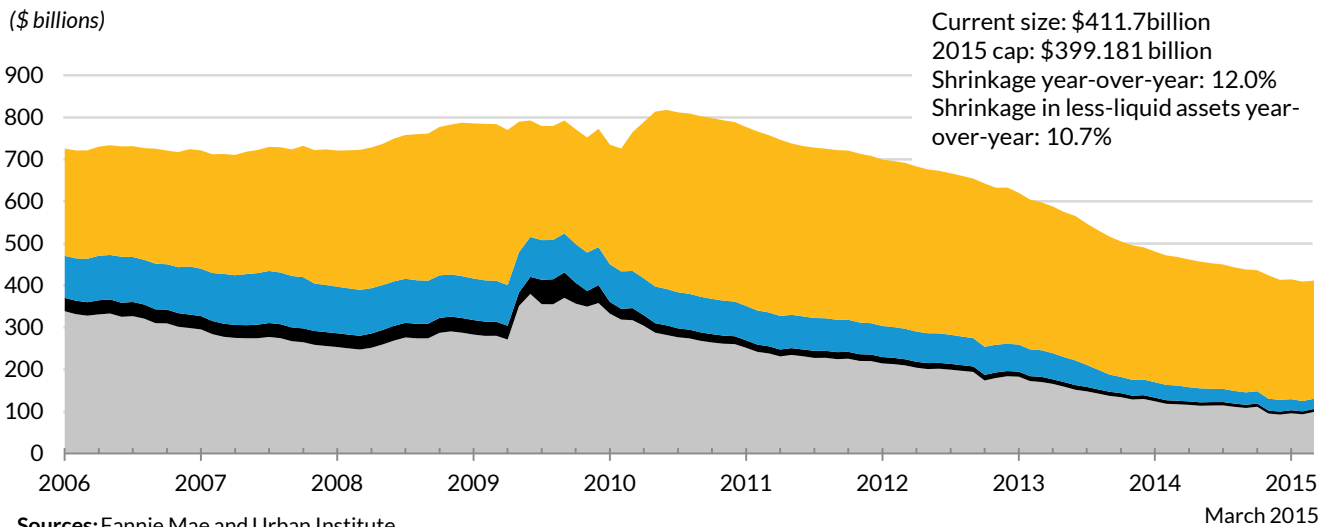
# GSES UNDER CONSERVATORSHIP

## 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. While the GSEs have both contracted their portfolio very modestly for the first two months of 2015, the March has brought a small uptake in both GSEs, with Fannie now at \$411.7 billion and Freddie now at \$405.6 billion. Relative to March 2014, Fannie contracted by 12.0 percent, and Freddie Mac by 6.6 percent. Over the past year, Fannie has been shrinking its less liquid assets (mortgage loans and non-agency MBS) slightly slower than their entire portfolio. Freddie is shrinking these less liquid assets decidedly faster.

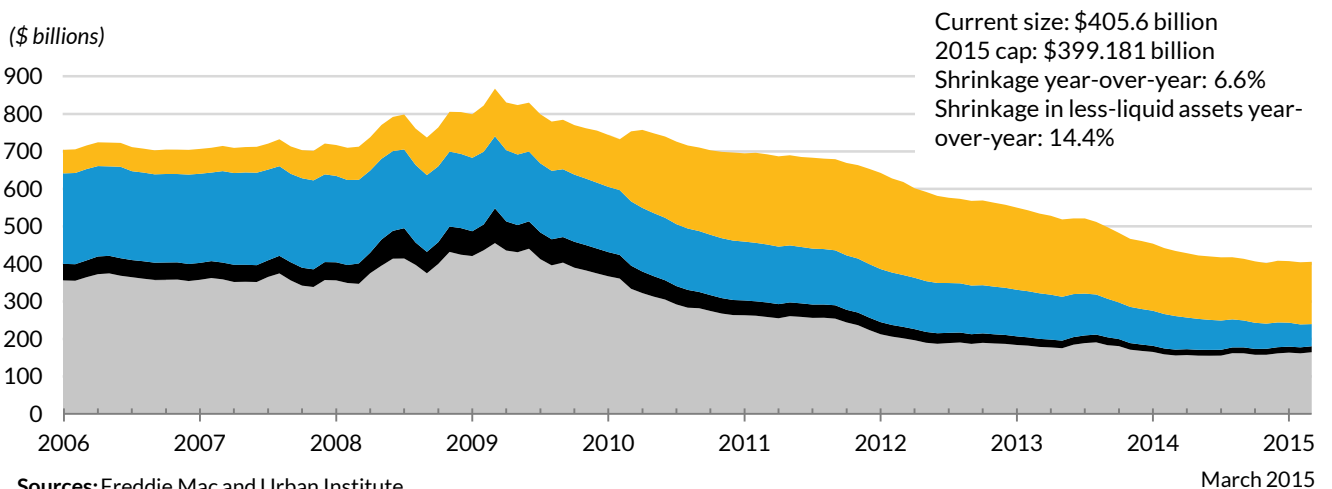
### Fannie Mae Mortgage-Related Investment Portfolio Composition

■ Fannie 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

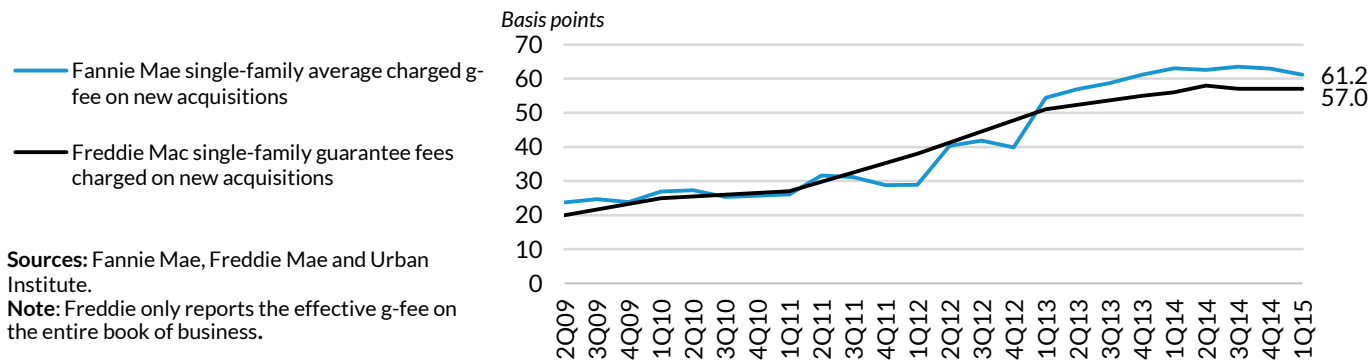


## GSES UNDER CONSERVATORSHIP

# EFFECTIVE GUARANTEE FEES AND GSE RISK-SHARING TRANSACTIONS

## Effective Guarantee Fees

Fannie's average charged g-fee on new single-family originations was 61.2 bps in Q1 2015, down from 62.9 bps in the previous quarter. Freddie's remained flat at 57.0 bps, as it has for the past three quarters. 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) are shown in the second table, which will be introduced in September 2015. 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.



## 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%
<b>Product Feature (Cumulative)</b>								
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

## 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
<b>Fannie Mae Total Reference Collateral</b>		<b>\$299,182.01</b>
<b>Percent of Fannie Mae's Total Book of Business</b>		<b>11.4%</b>

## 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
<b>Freddie Mac Total Reference Collateral</b>		<b>\$281,059.44</b>
<b>Percent of Freddie Mac's Total Book of Business</b>		<b>18.1%</b>

## Details of Freddie Mac's latest capital markets transaction, STACR 2015 – DNA1

Class	Amount (\$ millions)	Tranche Thickness (%)	CE (%)	Moody's Rating	Coupon (1mL+)
A-H	\$30,521	95.75	4.25	NR	NR
M-1, M-1H, Total	\$280, \$38.8, \$318.8	1	3.25	M: A3	90
M-2, M-2H, Total	\$280, \$38.8, \$318.8	1	2.25	M: Baa3	185
M-3, M-3H, Total	\$350, \$48.4, \$398.4	1.25	1	B1	330
B, BH, Total	\$100, \$218.8, \$318.8	1	0	NR	920
<b>Reference Pool Size</b>	<b>\$31,875.70</b>		--	--	--

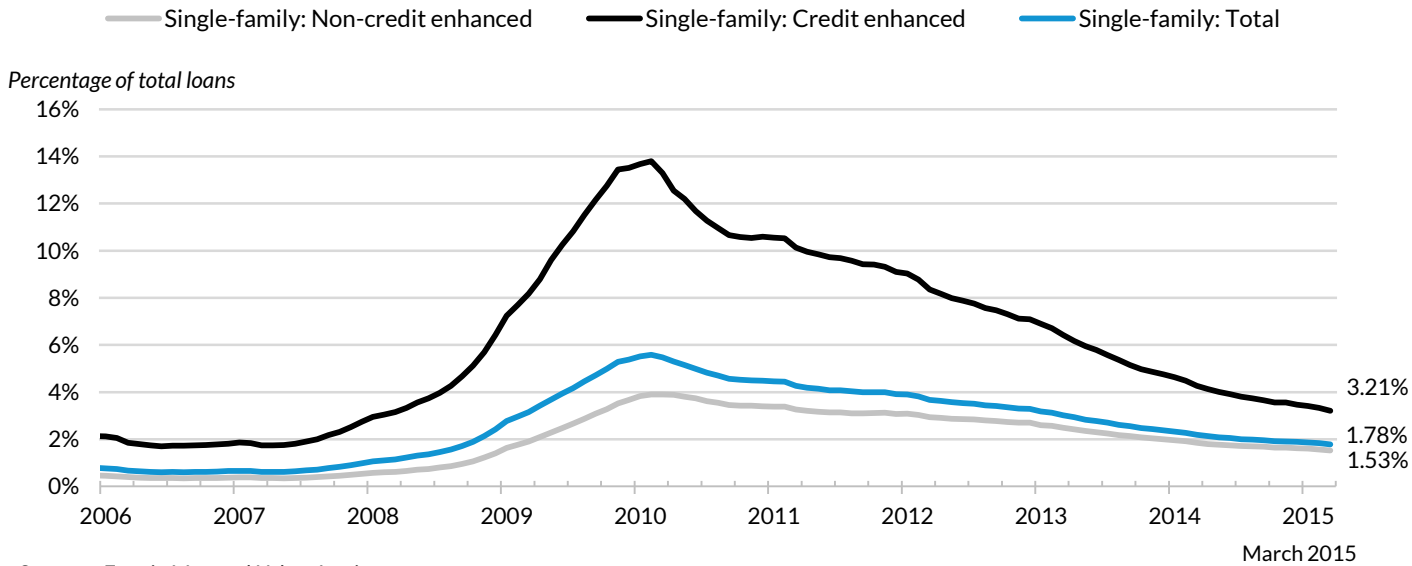
Sources: Fannie Mae, Freddie Mac and Urban Institute.

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.

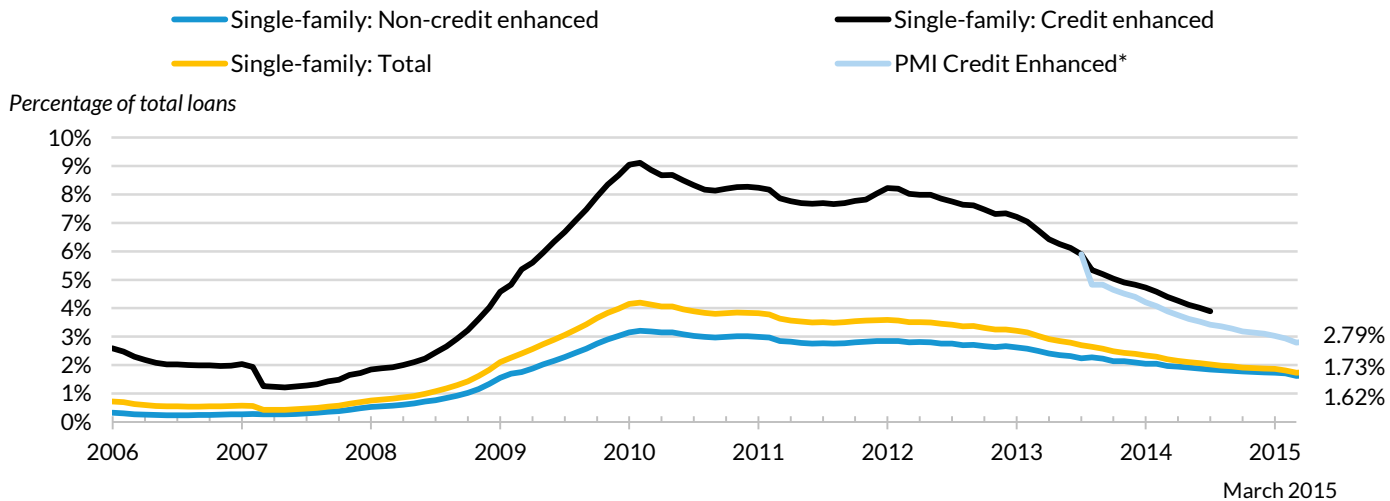
# GSES UNDER CONSERVATORSHIP SERIOUS DELINQUENCY RATES

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 March 2015, 1.78 percent of the Fannie portfolio and 1.73 percent of the Freddie portfolio were seriously delinquent, down from 2.19 percent for Fannie and 2.20 percent for Freddie in March 2014.

## Serious Delinquency Rates–Fannie Mae



## Serious Delinquency Rates–Freddie Mac

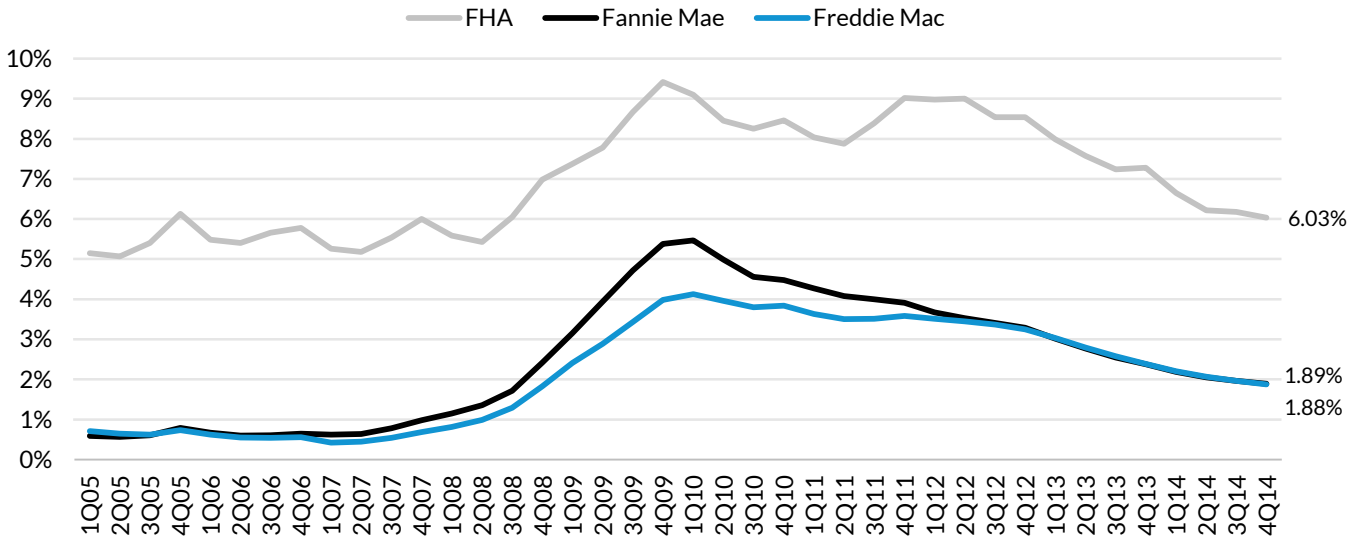


# GSES UNDER CONSERVATORSHIP

## SERIOUS DELINQUENCY RATES

Serious delinquencies for FHA and GSE single-family loans continue to decline, but remain high relative to 2005-2007. FHA delinquencies are declining from a higher relative starting point. GSE multifamily delinquencies have declined to pre-crisis levels, though they did not reach problematic levels even in the worst years.

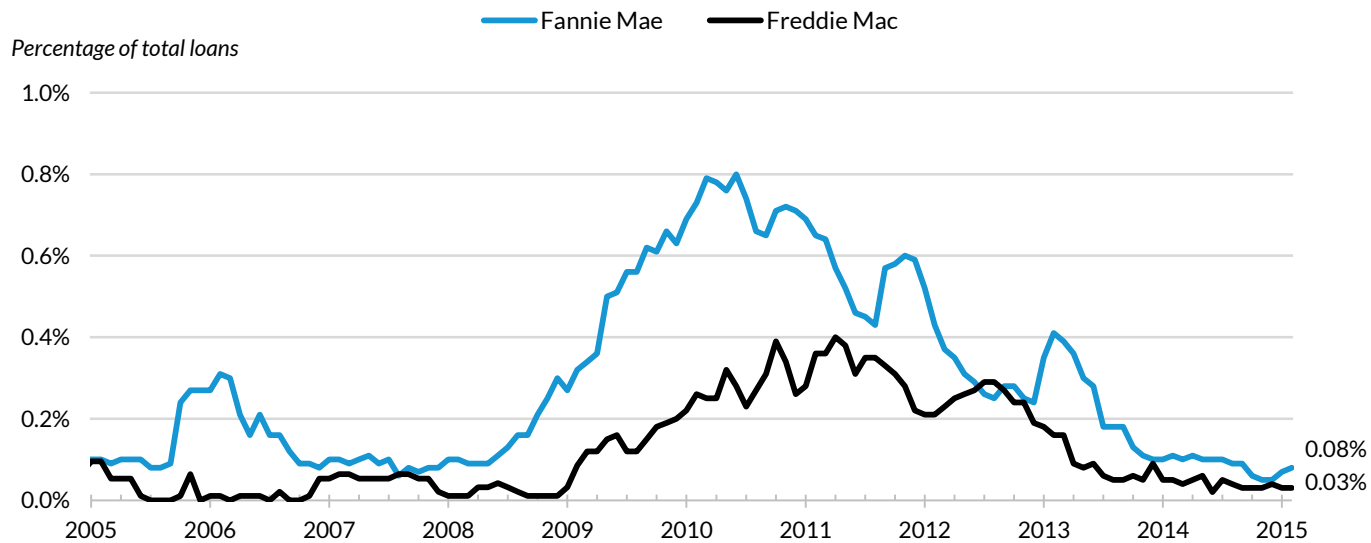
### Serious Delinquency Rates—Single-Family Loans



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.

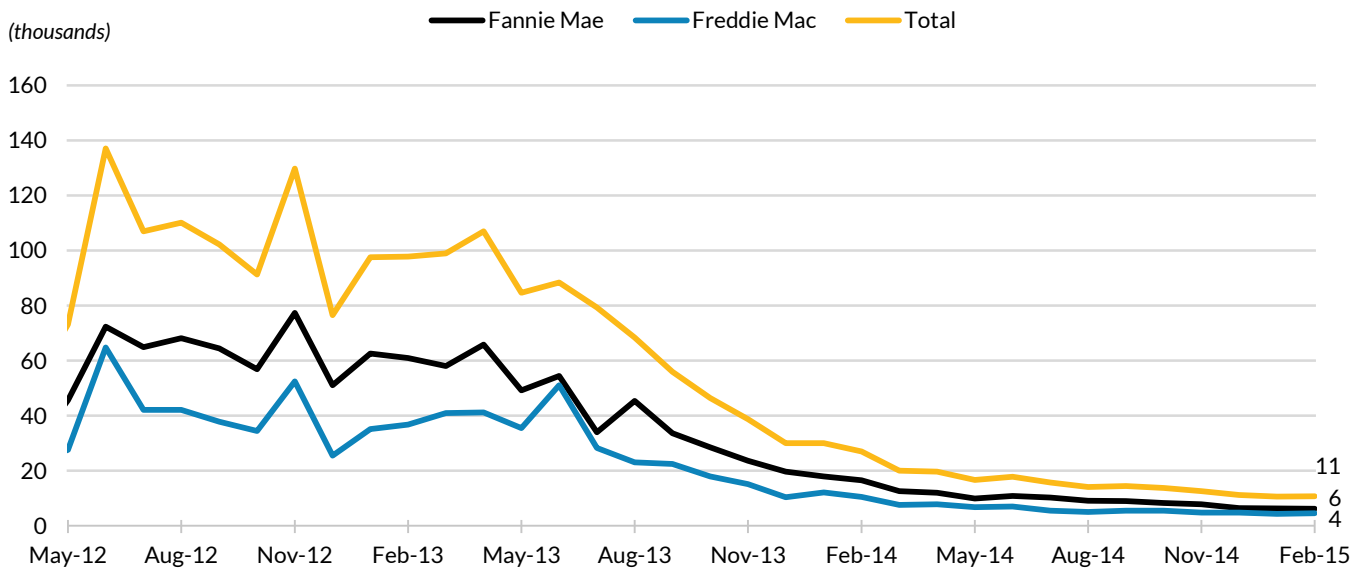
Note: Multifamily serious delinquency rate is the unpaid balance of loans 60 days or more past due, divided by the total unpaid balance.

March 2015

# GSES UNDER CONSERVATORSHIP REFINANCE ACTIVITY

The Home Affordable Refinance Program (HARP) refinances have slowed considerably, reflecting the fact that 3.29 million borrowers have already refinanced since the programs Q2 2009 inception. HARP refinances accounted for 16 percent of all GSE refinances between April 2009 and February 2015. The February numbers show only 10,673 new refinances, despite low interest rates, down from an average of 17,708 per month in 2014.

## Total HARP Refinance Volume



## HARP Refinances

	February 2015	Year-to-date 2015	Inception to date	2014	2013	2012
Total refinances	188,455	340,866	20,749,906	1,536,789	4,081,911	4,750,530
Total HARP refinances	10,673	21,264	3,291,718	212,497	892,914	1,074,769
Share 80-105 LTV	76.1%	75.6%	70.0%	72.5%	56.4%	56.4%
Share 105-125 LTV	15.8%	16.0%	17.2%	17.2%	22.4%	22.4%
Share >125 LTV	8.1%	8.4%	12.8%	10.3%	21.2%	21.0%
All other streamlined refinances	20,177	39,014	3,521,230	268,025	735,210	729,235

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 745,257 eligible loans, but 37 percent are out-of-the-money because the closing cost would exceed the long-term savings, leaving 467,396 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 6,392,318 loans in this category, 5,449,116 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	26,884,676
Loans that do not meet pay history requirement	760,105
Loans that meet pay history requirement:	26,124,571
Pre-June 2009 origination	7,137,575
Post-June 2009 origination	18,986,996

## Loans Meeting HARP Pay History Requirements

### Pre-June 2009

LTV category	In-the-money	Out-of-the-money	Total
≤80	5,449,116	943,202	6,392,318
>80	467,396	277,861	745,257
Total	5,916,512	1,221,063	7,137,575

### Post-June 2009

LTV category	In-the-money	Out-of-the-money	Total
≤80	4,947,134	11,057,924	16,005,058
>80	1,317,391	1,664,547	2,981,938
Total	6,264,525	12,722,471	18,986,996

Sources: CoreLogic Prime Servicing as of March 2015.

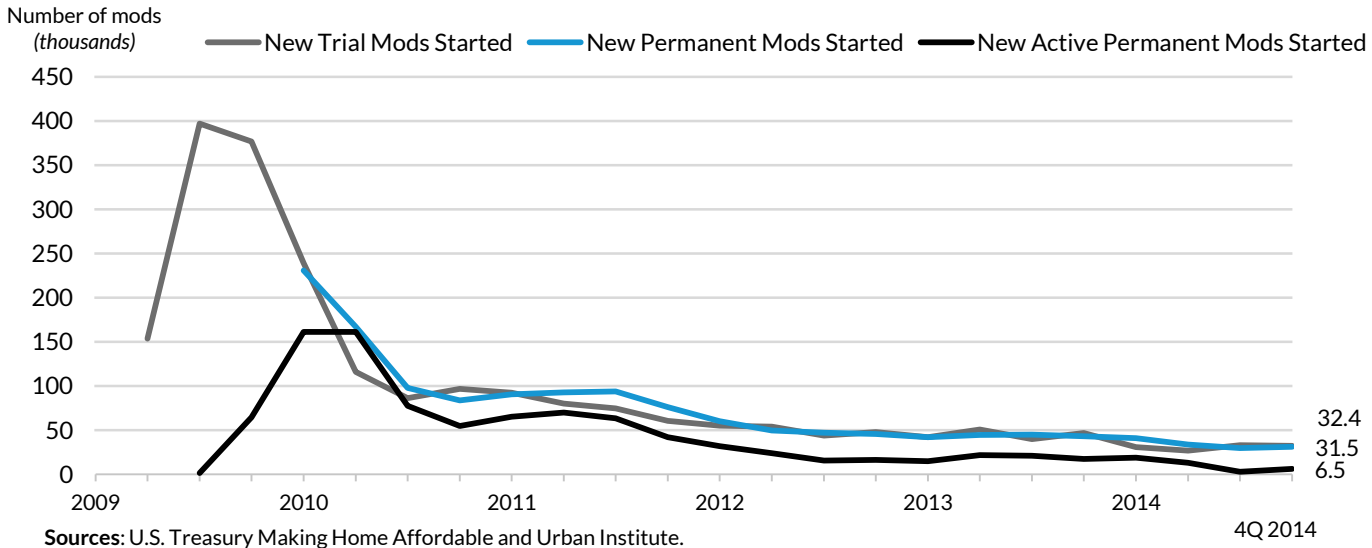
Note: Figures are scaled up from source data to account for data coverage of the GSE active loan market (based on MBS data from eMBS). Shaded box indicates HARP-eligible loans that are in-the-money.

# MODIFICATION ACTIVITY

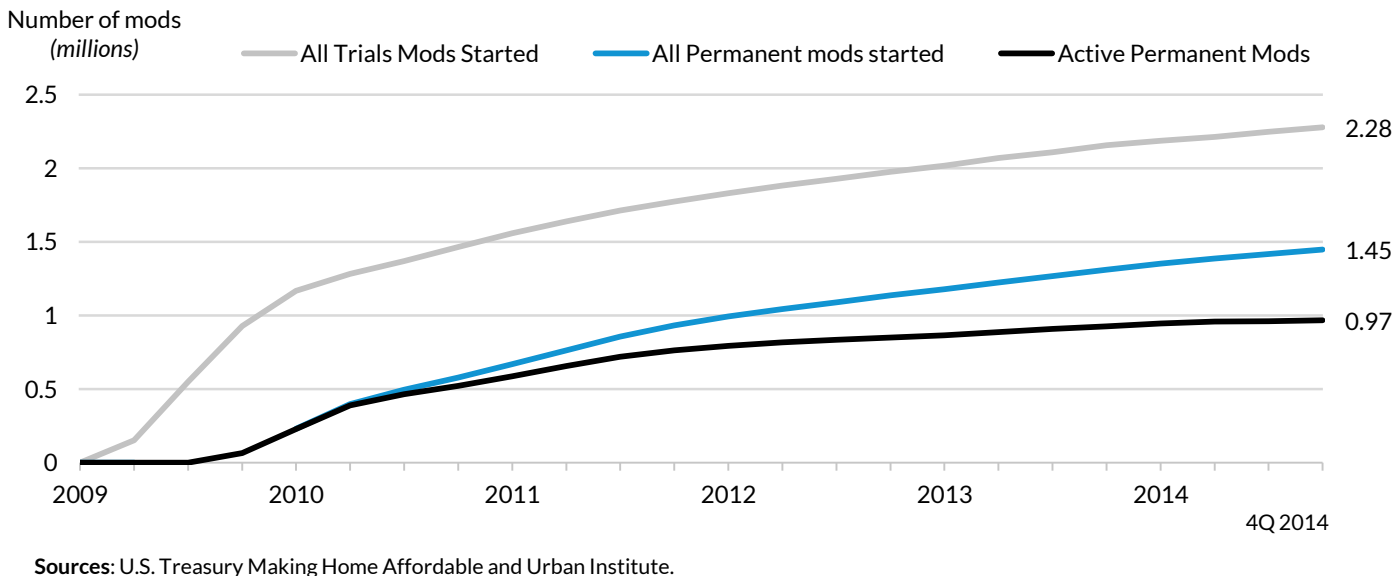
## HAMP ACTIVITY

In Q4 2014, new HAMP activity (both trial modifications and permanent modifications) declined versus the same quarter in 2013. New trial mods averaged about 30,800 per quarter in 2014, compared to over 45,000 per quarter in 2013. Cumulative permanent HAMP mods started now total 1.45 million.

### New HAMP Modifications



### Cumulative HAMP Modifications



## MODIFICATION ACTIVITY

# MODIFICATION BY TYPE OF ACTION AND BEARER OF RISK

The share of principal reduction modifications peaked at 20 percent in December 2012 and has now dropped to 6.5 percent. This is to be expected, as increasing home prices have increased equity, reducing the need for principal reduction and making such modifications less likely to be net-present-value positive. Portfolio loans are the most likely candidates for principal reduction, followed by private investor loans, because the GSEs and FHA/VA generally do not allow this type of modification. The FHFA is studying whether a change in this policy is warranted for GSE modifications.

## Changes in Loan Terms for Modifications

	Modification Quarter						One quarter % change	One year % change
	13Q3	13Q4	14Q1	14Q2	14Q3	14Q4		
Capitalization	83.5	87.7	74.3	59	71.1	84.1	18.3	-4.1
Rate reduction	78.9	76.7	73.3	71.9	66.5	65.1	-2.1	-15.1
Rate freeze	5.5	7	6.5	7.1	7.5	8.4	11.2	19.7
Term extension	69.3	75.9	78	84	82.0	83.8	2.2	10.4
Principal reduction	13.6	10.5	8.1	5	6.8	6.5	-4.6	-38.0
Principal deferral	25.3	30.6	25.1	11.5	15.9	10.4	-34.3	-65.7
Not reported*	2.2	0.7	0.7	0.7	0.5	0.4	-21.2	-43.4

Sources: OCC Mortgage Metrics Report for the Third Quarter of 2014 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	98.7%	98.7%	64.0%	95.7%	93.3%	84.1%
Rate reduction	43.9%	46.4%	79.2%	70.8%	70.8%	65.1%
Rate freeze	11.6%	7.8%	6.6%	5.9%	11.9%	8.4%
Term extension	94.3%	96.3%	97.1%	31.4%	61.3%	83.8%
Principal reduction	0.0%	0.0%	0.6%	22.0%	27.4%	6.5%
Principal deferral	13.8%	13.4%	2.0%	15.3%	22.5%	10.4%
Not reported*	0.1%	0.1%	0.5%	0.9%	0.3%	0.4%

Sources: OCC Mortgage Metrics Report for the Fourth Quarter of 2014 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).

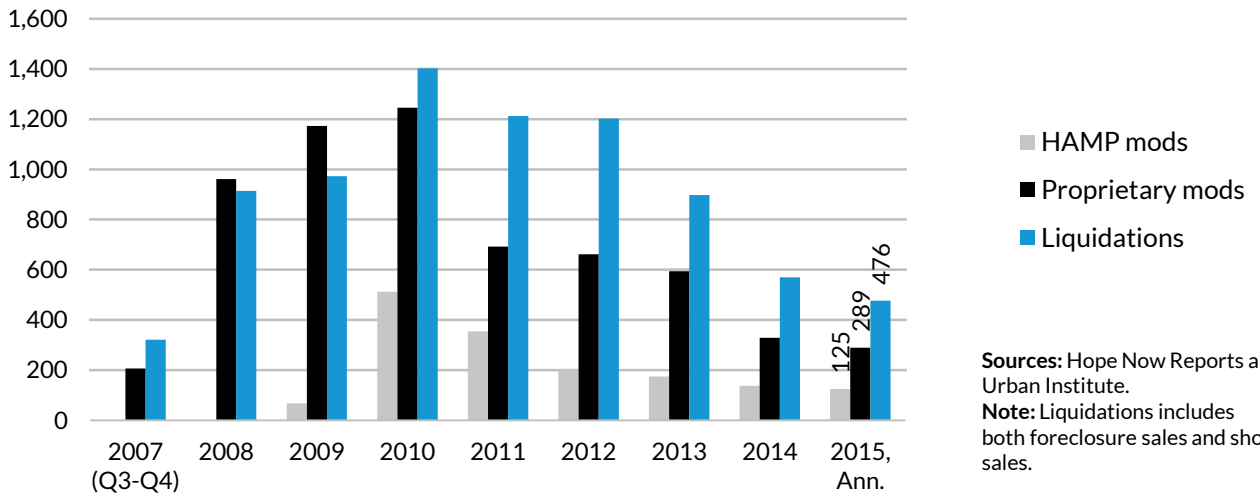
# MODIFICATION ACTIVITY

# MODIFICATIONS AND LIQUIDATIONS

Total modifications (HAMP and proprietary) are now roughly equal to total liquidations. Hope Now reports show 7,448,155 borrowers have received a modification since Q3 2007, compared with 7,572,840 liquidations in the same period. Both liquidation and modification activity are slowing significantly. Only 33,832 modifications were completed in February 2015, compared to a monthly average of about 39,000 in 2014 and 47,000 in 2013.

## Loan Modifications and Liquidations

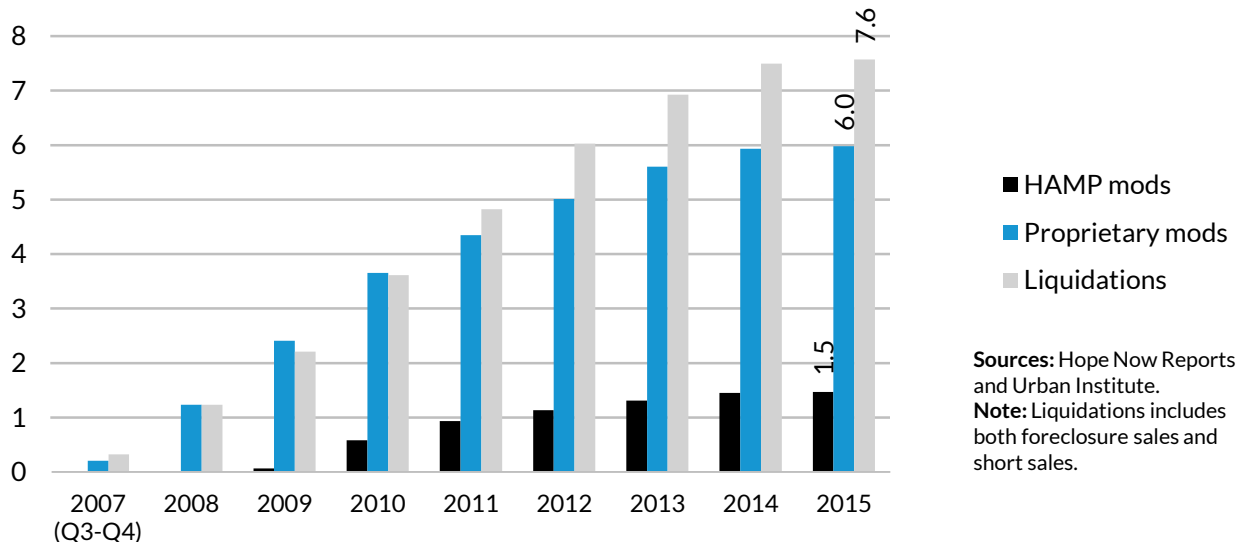
Number of loans (thousands)



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

## Cumulative Modifications and Liquidations

Number of loans (millions)



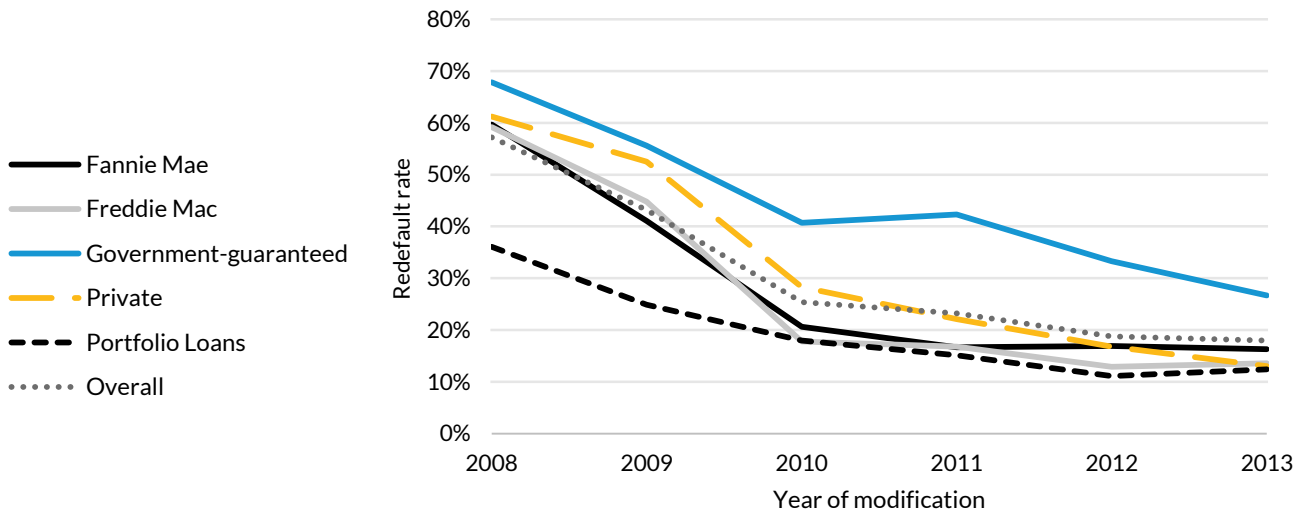
Sources: Hope Now Reports and Urban Institute.  
 Note: Liquidations includes both foreclosure sales and short sales.

## MODIFICATION ACTIVITY

# MODIFICATION REDEFAULT RATES BY BEARER OF THE RISK

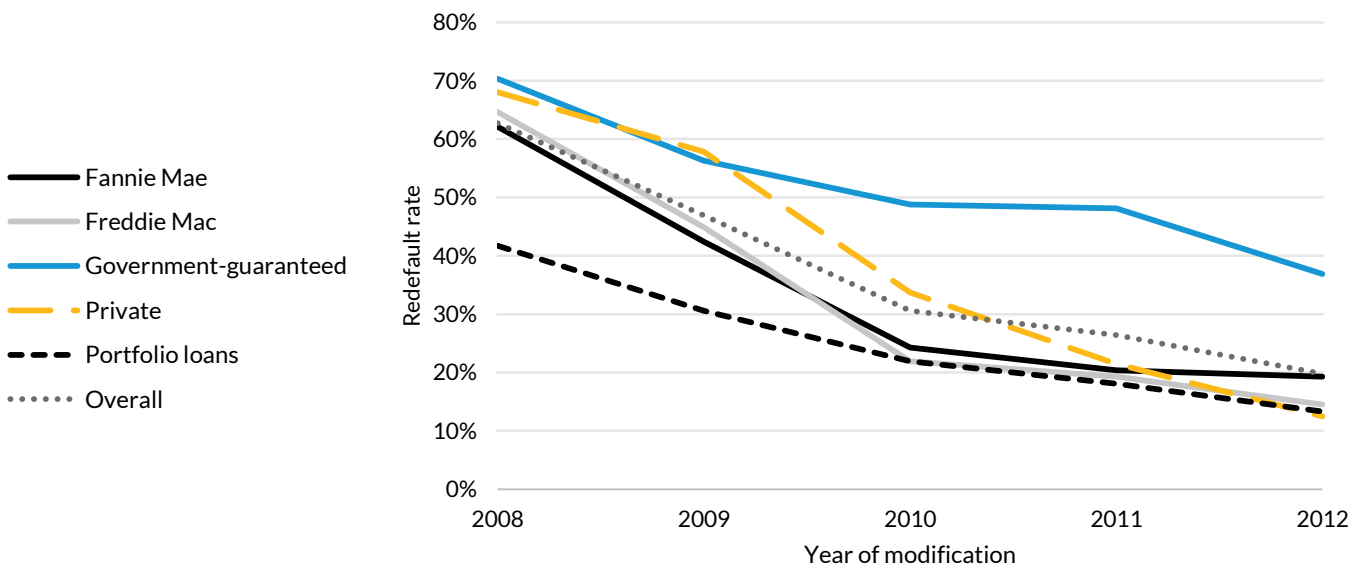
Redeault rates on modified loans have come down dramatically from 2008 to 2014. For the period as a whole, the steepest drops have been on private label modifications. More recently, there have been sharp declines in the redeault rates on government-guaranteed modifications, although this product type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

## Redeault Rate 12 Months after Modification



Sources: OCC Mortgage Metrics Report for the Fourth Quarter of 2014 and Urban Institute.

## Redeault Rate 24 Months after Modification



Sources: OCC Mortgage Metrics Report for the Fourth Quarter of 2014 and Urban Institute.

# AGENCY ISSUANCE

# 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 \$401.6 billion in the first four month of 2015, a 55 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	\$278.87	\$122.76	\$401.63
%Change year-over-year	55.4%	53.3%	54.8%
2015 Ann.	\$836.61	\$368.28	\$1,204.89

## 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	\$17.9	\$9.5	\$27.4
%Change year-over-year	-*	-43.59%	188.98%
2015 Ann.	\$53.62	\$28.53	\$82.15

Sources: eMBS and Urban Institute.

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

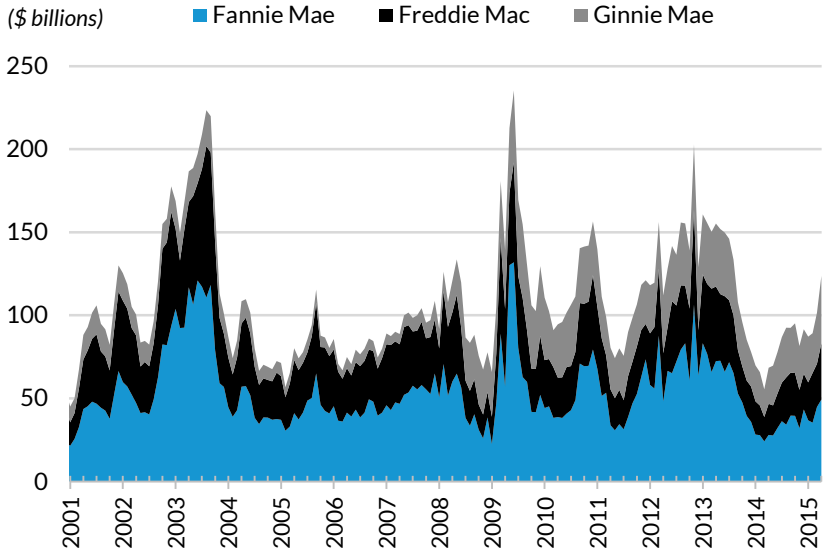
\*omitted since the GSE net issuance totaled -\$7.4 billion in the first three months of 2014.

## 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 now stood at 32 percent in April 2015, up from 30 percent last month, as the FHA refinance activity surged with the recent reduction in the FHA insurance premium.

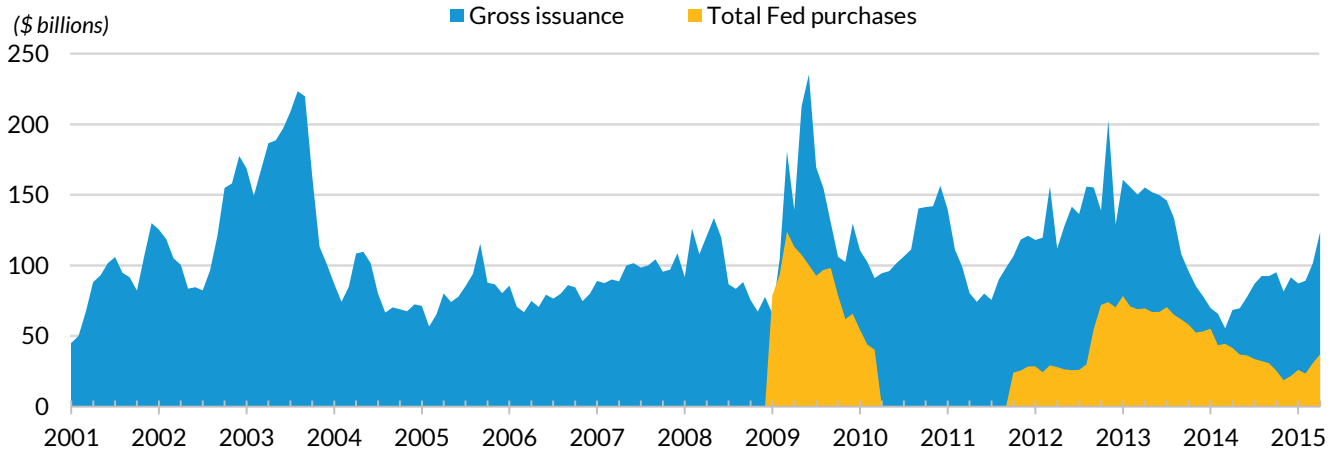


Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

April 2015

## Fed Absorption of Agency Gross Issuance

In Q1 2014, the Fed began to taper, but gross issuance dropped even more, and Fed absorption reached 74 percent. Since then, gross issuance increased and the Fed continued to taper, resulting in a steady decline of the absorption share to 53 and 36 percent in Q2 and Q3, respectively. In October, the Fed announced the end of its purchase program. However, buying continued at a much reduced level, as the Fed kept reinvesting funds from pay downs on mortgages and agency debentures into the mortgage market. From November 2014 to March 2015, the Fed's absorption of gross issuance has been between 23 and 30 percent. In April 2015, total Fed purchase increased to \$37 billion, and gross issuance increased as well, yielding flat Fed absorption of gross issuance of 30 percent.



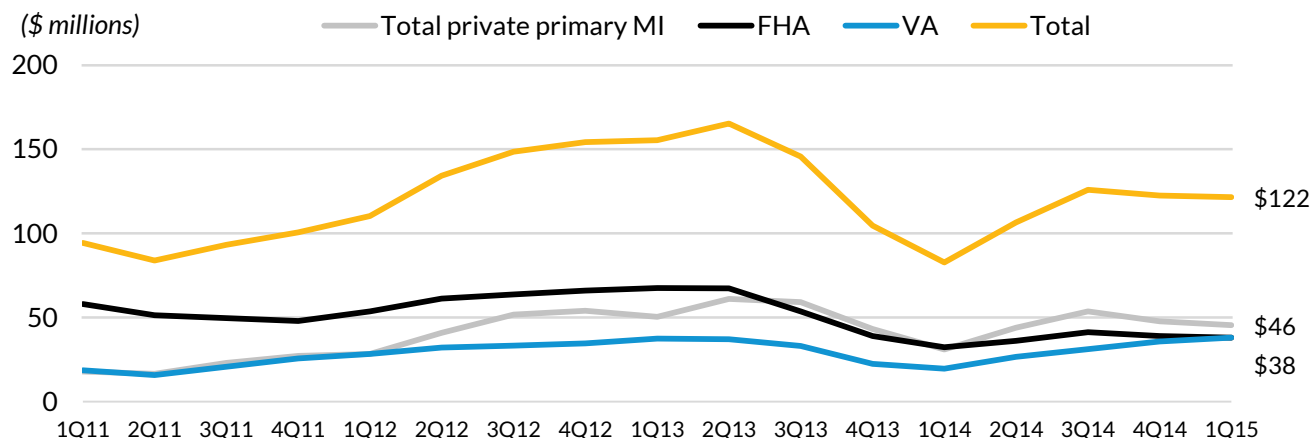
Sources: eMBS, Federal Reserve Bank of New York and Urban Institute.

April 2015

# AGENCY ISSUANCE MORTGAGE INSURANCE ACTIVITY

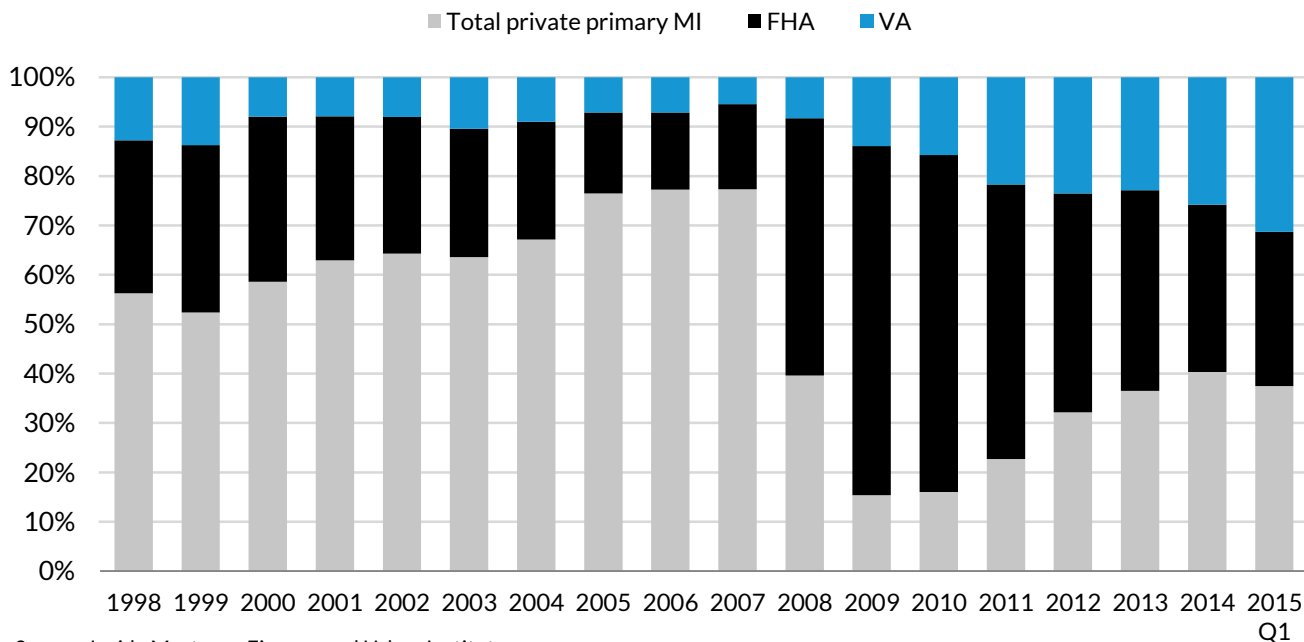
## MI Activity

Mortgage insurance activity via the FHA, VA, and private insurers climbed slightly in Q1 2015 to \$121.5 billion from \$118.9 billion the previous quarter. The VA share of new MI activity has grown significantly over the past year, to 31 percent from 24 percent at the beginning of 2014..



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, and effective January 26, 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 <sup>a</sup>	175	125
4/1/2013 - 1/25/2015 <sup>b</sup>	175	135
Beginning 1/26/2015 <sup>c</sup>	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.

<sup>a</sup> Applies to purchase loans less than or equal to \$625,500. Those over that amount have an annual premium of 150 bps.

<sup>b</sup> Applies to purchase loans less than or equal to \$625,500. Those over that amount have an annual premium of 155 bps.

<sup>c</sup> 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	3.83%
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	\$1,532	\$1,510	\$1,496	\$1,441	\$1,441	\$1,385	\$1,378	\$1,368
PMI Advantage	(\$252)	(\$230)	(\$216)	(\$161)	(\$161)	(\$105)	(\$98)	(\$88)

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, 71.8 percent of loans originated from 2011 to Q1 2014 were for borrowers with FICO scores above 750, compared to 40.4 percent of borrowers in 2007 and 36.7 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%	15.1%	4.5%	4.5%	33.5%
	700 to 750	9.2%	14.2%	3.4%	3.2%	30.1%
	>750	15.5%	16.1%	2.7%	2.3%	36.7%
	<b>Total</b>	<b>34.1%</b>	<b>45.4%</b>	<b>10.7%</b>	<b>10.0%</b>	<b>100.0%</b>
2005	≤700	12.5%	15.5%	3.4%	2.3%	33.8%
	700 to 750	9.7%	13.3%	2.2%	1.4%	26.6%
	>750	17.3%	18.6%	2.1%	1.4%	39.4%
	<b>Total</b>	<b>39.6%</b>	<b>47.4%</b>	<b>7.7%</b>	<b>5.2%</b>	<b>100.0%</b>
2006	≤700	12.7%	16.3%	3.6%	2.2%	34.7%
	700 to 750	8.8%	13.6%	2.2%	1.3%	25.9%
	>750	15.7%	20.0%	2.4%	1.4%	39.5%
	<b>Total</b>	<b>37.2%</b>	<b>49.9%</b>	<b>8.2%</b>	<b>4.9%</b>	<b>100.0%</b>
2007	≤700	10.7%	15.2%	5.4%	3.2%	34.6%
	700 to 750	7.7%	12.5%	3.1%	1.7%	25.0%
	>750	15.1%	20.0%	3.3%	2.0%	40.4%
	<b>Total</b>	<b>33.5%</b>	<b>47.7%</b>	<b>11.8%</b>	<b>7.0%</b>	<b>100.0%</b>
2008	≤700	7.6%	7.2%	3.0%	2.1%	19.8%
	700 to 750	7.8%	11.9%	4.1%	2.7%	26.4%
	>750	18.9%	25.5%	5.8%	3.4%	53.6%
	<b>Total</b>	<b>34.2%</b>	<b>44.4%</b>	<b>12.9%</b>	<b>8.2%</b>	<b>100.0%</b>
2009-2010	≤700	3.6%	2.9%	0.3%	0.2%	7.0%
	700 to 750	8.2%	10.8%	1.7%	0.8%	21.5%
	>750	32.3%	33.5%	4.0%	1.7%	71.4%
	<b>Total</b>	<b>44.0%</b>	<b>47.3%</b>	<b>6.0%</b>	<b>2.7%</b>	<b>100.0%</b>
2011-1Q14	≤700	2.6%	3.6%	0.7%	0.9%	7.7%
	700 to 750	5.6%	9.3%	2.4%	3.1%	20.5%
	>750	26.1%	32.4%	6.6%	6.7%	71.8%
	<b>Total</b>	<b>34.3%</b>	<b>45.3%</b>	<b>9.6%</b>	<b>10.8%</b>	<b>100.0%</b>
<b>Total</b>		<b>36.3%</b>	<b>45.9%</b>	<b>9.5%</b>	<b>8.2%</b>	<b>100.0%</b>

Sources: Fannie Mae and Urban Institute.

Note: Fannie Mae 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

## 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%	4.6%	6.2%	7.1%	4.9%
	700 to 750	1.1%	1.9%	3.0%	3.0%	1.9%
	>750	0.4%	0.8%	1.5%	1.7%	0.7%
	Total	1.5%	2.4%	4.0%	4.6%	2.5%
2005	≤700	13.5%	17.4%	20.2%	21.8%	16.5%
	700 to 750	6.2%	9.8%	12.9%	13.3%	8.9%
	>750	2.2%	4.5%	7.2%	8.2%	3.8%
	Total	6.8%	10.2%	14.6%	15.7%	9.5%
2006	≤700	18.0%	22.7%	26.5%	28.0%	21.7%
	700 to 750	8.7%	13.6%	16.9%	17.4%	12.4%
	>750	2.9%	6.0%	9.6%	10.0%	5.1%
	Total	9.4%	13.5%	18.9%	20.0%	12.8%
2007	≤700	19.4%	24.0%	32.2%	33.0%	24.7%
	700 to 750	8.6%	14.2%	21.0%	20.2%	13.7%
	>750	2.8%	6.1%	12.1%	11.9%	5.7%
	Total	9.4%	14.0%	23.6%	23.5%	14.3%
2008	≤700	14.2%	17.6%	25.0%	25.0%	18.2%
	700 to 750	5.0%	8.5%	14.2%	13.7%	8.9%
	>750	1.3%	3.0%	6.8%	7.4%	3.0%
	Total	5.0%	6.8%	13.3%	14.0%	7.6%
2009-2010	≤700	3.1%	4.2%	4.5%	5.3%	3.7%
	700 to 750	0.8%	1.6%	2.1%	2.5%	1.4%
	>750	0.2%	0.5%	0.9%	1.2%	0.4%
	Total	0.5%	1.0%	1.4%	1.9%	0.8%
2011-1Q14	≤700	0.5%	0.6%	0.5%	0.6%	0.6%
	700 to 750	0.1%	0.2%	0.2%	0.2%	0.2%
	>750	0.0%	0.0%	0.1%	0.1%	0.0%
	Total	0.1%	0.1%	0.2%	0.2%	0.1%
<b>Total</b>		<b>2.2%</b>	<b>3.4%</b>	<b>5.8%</b>	<b>5.2%</b>	<b>3.3%</b>

Sources: Fannie Mae and Urban Institute.

Note: Fannie Mae loan level credit data includes loans originated from Q1 1999 to Q1 2014, with performance information on these loans through 4Q2014. 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, 68.7 percent of loans originated from 2011 to Q3 2013 were for borrowers with FICO scores above 750, compared to 39.0 percent in 2007 and 33.3 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	7.8%	16.6%	5.5%	5.7%	35.5%
	700 to 750	8.9%	16.0%	3.5%	3.2%	31.5%
	>750	13.6%	15.6%	2.3%	1.8%	33.3%
	<b>Total</b>	<b>30.3%</b>	<b>48.2%</b>	<b>11.2%</b>	<b>10.6%</b>	<b>100.0%</b>
2005	≤700	10.6%	17.0%	3.3%	3.0%	33.8%
	700 to 750	9.4%	15.5%	2.0%	1.7%	28.5%
	>750	15.8%	18.9%	1.7%	1.4%	37.8%
	<b>Total</b>	<b>35.8%</b>	<b>51.3%</b>	<b>7.0%</b>	<b>6.0%</b>	<b>100.0%</b>
2006	≤700	10.0%	17.3%	3.4%	3.2%	34.0%
	700 to 750	8.3%	16.1%	1.9%	1.5%	27.8%
	>750	14.3%	20.7%	1.7%	1.3%	38.1%
	<b>Total</b>	<b>32.6%</b>	<b>54.0%</b>	<b>7.1%</b>	<b>6.1%</b>	<b>100.0%</b>
2007	≤700	9.2%	15.6%	4.6%	4.8%	34.1%
	700 to 750	7.5%	14.4%	2.6%	2.6%	27.1%
	>750	14.3%	19.5%	2.5%	2.6%	39.0%
	<b>Total</b>	<b>31.0%</b>	<b>49.5%</b>	<b>9.7%</b>	<b>10.0%</b>	<b>100.0%</b>
2008	≤700	7.3%	8.7%	3.1%	2.2%	21.4%
	700 to 750	9.2%	13.1%	3.7%	2.5%	28.4%
	>750	21.6%	21.5%	4.7%	2.6%	50.5%
	<b>Total</b>	<b>38.1%</b>	<b>43.4%</b>	<b>11.5%</b>	<b>7.2%</b>	<b>100.0%</b>
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%	30.9%	3.6%	1.4%	68.3%
	<b>Total</b>	<b>45.7%</b>	<b>46.1%</b>	<b>5.6%</b>	<b>2.5%</b>	<b>100.0%</b>
2011-3Q13	≤700	3.1%	3.2%	0.6%	0.8%	7.7%
	700 to 750	7.3%	11.0%	2.4%	2.9%	23.7%
	>750	25.9%	31.7%	5.5%	5.4%	68.7%
	<b>Total</b>	<b>36.4%</b>	<b>45.9%</b>	<b>8.5%</b>	<b>9.1%</b>	<b>100.0%</b>
<b>Total</b>		<b>34.8%</b>	<b>47.7%</b>	<b>9.2%</b>	<b>8.1%</b>	<b>100.0%</b>

Sources: Freddie Mac and Urban Institute.

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q3 2013. 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	2.8%	4.0%	6.2%	6.7%	4.5%
	700 to 750	0.9%	1.6%	2.5%	2.7%	1.6%
	>750	0.3%	0.7%	1.3%	1.6%	0.7%
	Total	1.1%	2.1%	4.1%	4.6%	2.3%
2005	≤700	11.3%	15.5%	18.5%	19.9%	14.9%
	700 to 750	5.4%	8.9%	11.9%	12.2%	8.2%
	>750	1.9%	4.3%	6.7%	7.8%	3.5%
	Total	5.6%	9.4%	13.8%	15.0%	8.7%
2006	≤700	15.0%	19.9%	23.1%	25.4%	19.3%
	700 to 750	7.6%	12.1%	14.6%	14.6%	11.1%
	>750	2.6%	5.7%	8.3%	9.2%	4.8%
	Total	7.7%	12.2%	17.2%	19.2%	11.5%
2007	≤700	15.9%	21.2%	26.7%	29.3%	21.7%
	700 to 750	7.4%	12.8%	17.1%	17.4%	12.2%
	>750	2.5%	6.0%	9.8%	10.9%	5.3%
	Total	7.6%	12.8%	19.7%	21.5%	12.8%
2008	≤700	12.0%	15.8%	21.9%	21.0%	15.9%
	700 to 750	4.3%	7.8%	12.2%	10.9%	7.5%
	>750	1.3%	3.1%	6.4%	5.9%	2.8%
	Total	4.1%	7.1%	12.4%	12.1%	6.9%
2009-2010	≤700	2.3%	3.3%	3.7%	4.0%	2.8%
	700 to 750	0.6%	1.3%	1.5%	1.8%	1.1%
	>750	0.1%	0.4%	0.8%	0.9%	0.3%
	Total	0.4%	0.9%	1.2%	1.5%	0.7%
2011-3Q13	≤700	0.2%	0.3%	0.3%	0.4%	0.3%
	700 to 750	0.1%	0.1%	0.1%	0.2%	0.1%
	>750	0.0%	0.0%	0.0%	0.1%	0.0%
	Total	0.0%	0.1%	0.1%	0.1%	0.1%
<b>Total</b>		<b>2.1%</b>	<b>3.9%</b>	<b>6.2%</b>	<b>6.7%</b>	<b>3.7%</b>

Sources: Freddie Mae and Urban Institute.

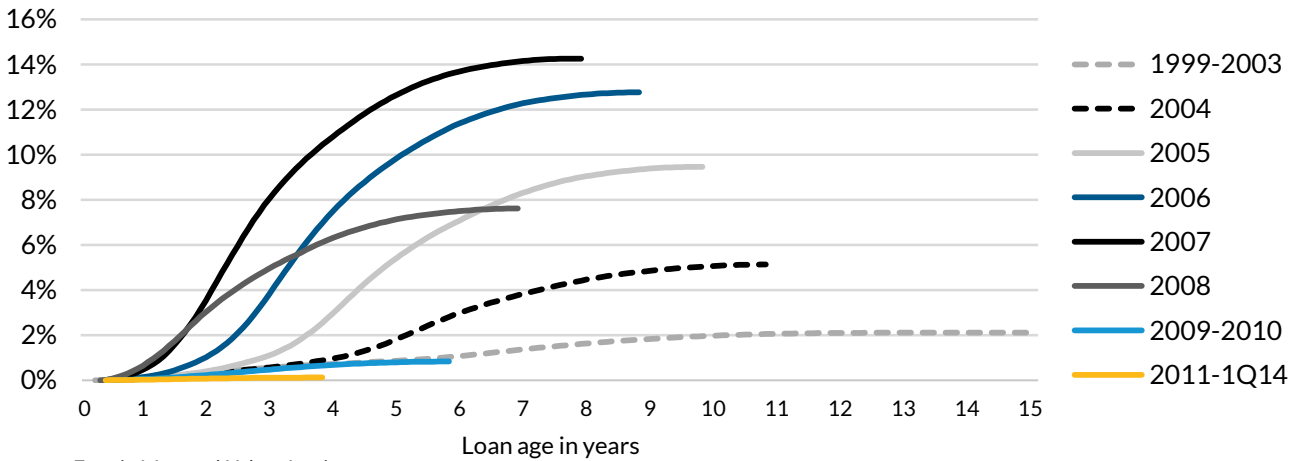
Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q3 2013, with performance information on these loans through Q1 2014. Default is defined as six months delinquent or disposed of via short sales, third-party sales, deeds-in-lieu of foreclosure, or real estate owned (REO acquisitions).

# SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

## DEFAULT RATE BY VINTAGE

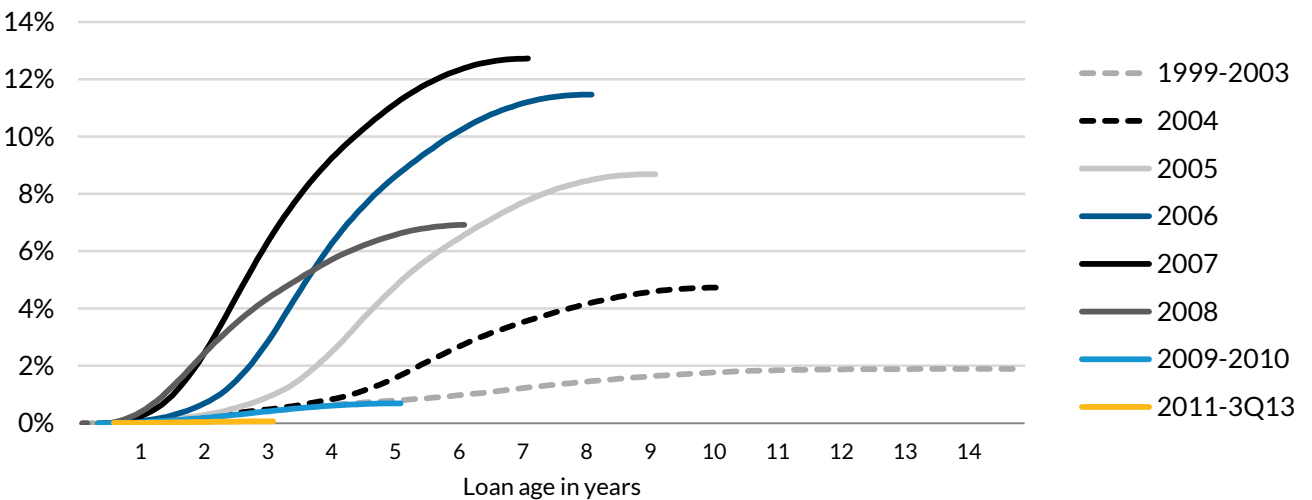
With cleaner books of business and the housing recovery underway, default rates for the GSEs are much lower than they were just a few years ago. For Fannie Mae and Freddie Mac's 1999-2003 vintages, cumulative defaults total around 2 percent, while cumulative defaults for the 2007 vintage are above 14 percent and 13 percent respectively. 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 47 months after origination, the cumulative default rate from 2009-10 and 2011-Q1 2014 are about 0.65 and 0.12 percent, respectively, compared to the cumulative default rate from 1999-2003 of 0.69 percent. For Freddie loans 37 months after origination, the cumulative default rates total 0.43 percent from 2009-10 and 0.06 percent from 2011-Q3 2013, compared to the rate from 1999-2003 of 0.47 percent.

### Fannie Mae Cumulative Default Rate by Vintage Year



Sources: Fannie Mae and Urban Institute.

### Freddie Mac Cumulative Default Rate by Vintage Year



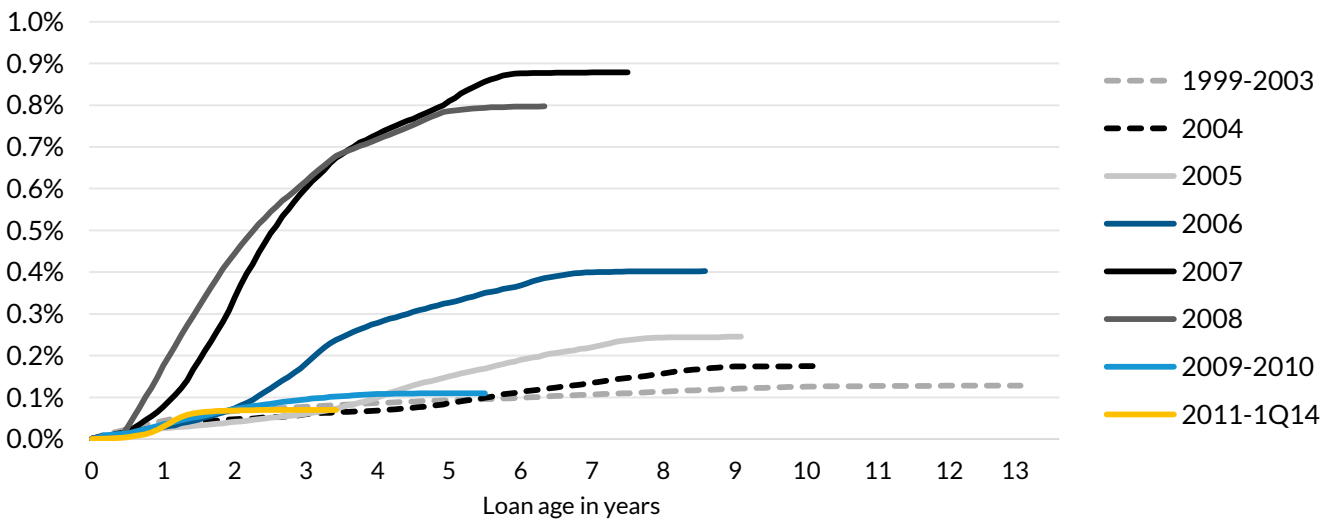
Sources: Freddie Mac and Urban Institute.

# SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

## REPURCHASE RATE BY VINTAGE

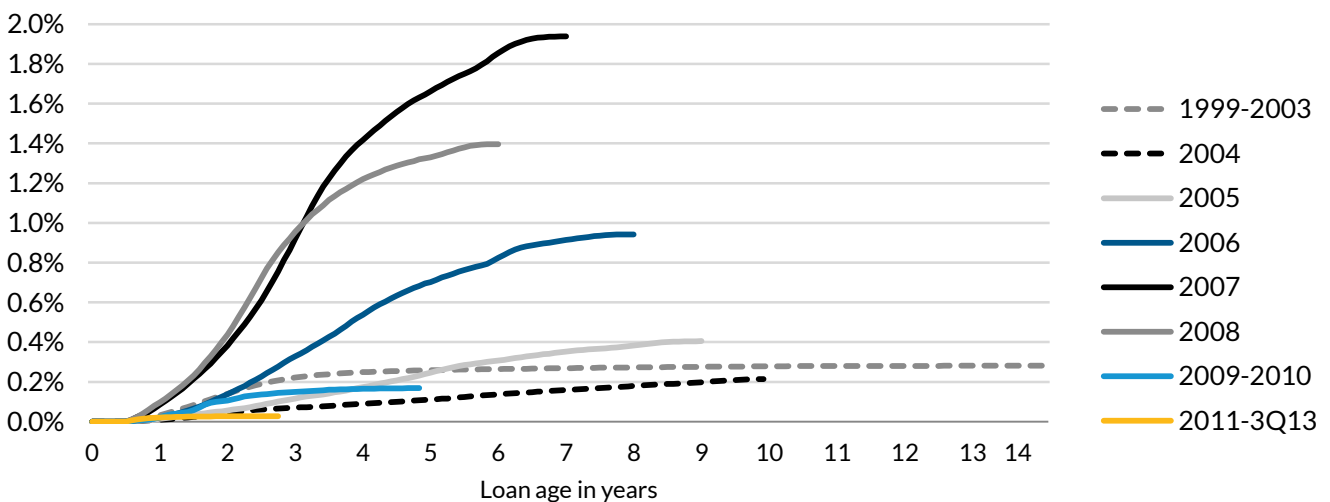
These figures show the cumulative percentage of fixed-rate, full documentation, amortizing 30-year loans of a given vintage that Fannie and Freddie have put back to lenders due to reps and warrants violations. Note that the put-backs are generally quite small, with the exception of the 2006-2008 vintages. 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

## FREDDIE MAC LOSS SEVERITY

Freddie Mac recently released data showing the status of loans after they have 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. The top right chart shows we expect 77 percent of loans experiencing a credit event to eventually liquidate. We define eventual liquidation as a deed-in-lieu, short sale, foreclosure sale, REO sale or staying in the foreclosure pipeline. The bottom left table show the severities of the 55 percent of the loans that have already liquidated (a deed-in-lieu, short sale, foreclosure sale, REO sale) after experiencing a credit event. The bottom right table (the product of the top right and bottom left tables) shows the estimated severity on all loans that have experienced a credit event. Note that from this month, interest loss is included as another component of loss in the severity calculation.

### Estimated liquidation rate for D180+ loans

Year	<=60	60-80	>80	Total
1999-2004	56.5%	71.7%	77.8%	73.5%
2005	64.4%	79.4%	84.1%	79.2%
2006	65.7%	80.5%	84.4%	80.1%
2007	65.1%	78.8%	83.1%	79.2%
2008	62.1%	75.5%	79.8%	75.7%
2009-2010	66.4%	79.6%	87.0%	79.0%
2011-2013	68.7%	81.6%	87.2%	81.3%
<b>Total</b>	<b>62.6%</b>	<b>76.9%</b>	<b>80.7%</b>	<b>77.0%</b>

### Severity for already liquidated loans

Year	<=60	60-80	>80	Total
1999-2004	24.8%	38.2%	22.4%	30.3%
2005	35.1%	48.0%	34.1%	44.0%
2006	42.8%	53.2%	36.8%	49.0%
2007	45.7%	53.5%	37.6%	47.7%
2008	38.2%	50.1%	34.1%	43.5%
2009-2010	25.4%	36.8%	18.6%	32.2%
2011-2013	8.4%	27.3%	12.0%	20.0%
<b>Total</b>	<b>37.4%</b>	<b>48.5%</b>	<b>31.0%</b>	<b>42.2%</b>

### Estimated severity for D180+ loans

Year	<=60	60-80	>80	Total
1999-2004	14.0%	27.4%	17.4%	22.3%
2005	22.6%	38.1%	28.6%	34.9%
2006	28.1%	42.8%	31.1%	39.3%
2007	29.7%	42.2%	31.3%	37.8%
2008	23.7%	37.8%	27.2%	32.9%
2009-2010	16.8%	29.3%	16.2%	25.4%
2011-2013	5.8%	22.3%	10.4%	16.3%
<b>Total</b>	<b>23.4%</b>	<b>37.3%</b>	<b>25.0%</b>	<b>32.5%</b>

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

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q3 2013, with performance information on these loans through Q1 2014.



# SPECIAL FEATURE: LOAN LEVEL GSE CREDIT DATA

## FREDDIE MAC LOSS SEVERITY

The table below shows the components of loss, among 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 loans that experienced losses, the average severity was 46 percent. Ten percent of the loans that liquidated did not experience a loss. Thus, the overall severity was 42 percent, a fact we first saw in tables on page 40.

### Loss component for already liquidated loans

Year	Liquidation with loss							% of liquidation loans with no loss	Total severity
	As a percent of defaulted unpaid principal balance (UPB)								
	Mean defaulted unpaid principal balance (UPB) (\$ thousands)	MI recoveries	Net sale proceeds	Non-MI recoveries	Expenses	Interest loss	Severity		
1999-2004	111.03	-11.2%	-68.4%	-5.1%	13.1%	10.1%	38.5%	20%	30.3%
2005	175.09	-5.4%	-62.6%	-2.8%	8.5%	8.8%	46.6%	6%	44.0%
2006	188.19	-5.3%	-58.9%	-2.4%	7.7%	9.7%	50.7%	4%	49.0%
2007	190.32	-7.9%	-58.1%	-2.4%	7.9%	9.9%	49.3%	3%	47.7%
2008	200.55	-7.6%	-62.2%	-2.1%	7.8%	9.6%	45.5%	5%	43.5%
2009-2010	197.45	-4.0%	-74.0%	-1.3%	7.6%	6.5%	34.9%	8%	32.2%
2011-2013	175.46	-8.9%	-76.7%	-1.7%	7.8%	4.8%	25.1%	20%	20.0%
Total	163.56	-7.4%	-62.2%	-3.0%	9.1%	9.6%	46.0%	10%	42.2%

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

Note: Freddie Mac loan level credit data includes loans originated from Q1 1999 to Q3 2013, with performance information on these loans through Q1 2014.

# RELATED HFPC WORK

# PUBLICATIONS AND EVENTS

## Upcoming Events

**Lunchtime Data Talk – Resolution of Distressed Mortgages and Foreclosure Activity: Policy Frameworks and Experience– June 9<sup>th</sup> at 12:00 PM at the Urban Institute.** Please join us as Larry Cordell from the Federal Reserve Bank of Philadelphia, and Jochen Andritzky, from the International Monetary Fund discuss their respective papers. Adam Levitin from the Georgetown University Law Center will serve as discussant and focus on methodology, results, and takeaways.

## Publications

### [Privatizing Fannie and Freddie: Be Careful What You Ask For](#)

Author: Jim Parrott, Mark M. Zandi

Date: May 18, 2015

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

Author: Laurie Goodman

Date: May 7, 2015

### [A Closer Look at the Data on First-Time Homebuyers](#)

Bing Bai, Jun Zhu and Laurie Goodman

Date: May 1, 2015

### [A Modest Recalibration of GSE Pricing](#)

Author: Jim Parrott

Date: April 17, 2015

### [The GSEs' Shrinking Role in the Multifamily Market](#)

Author: Karan Kaul

April 8, 2015

### [The Impact of Tight Credit Standards on 2009-13 Lending](#)

Authors: Laurie Goodman, Jun Zhu and Taz George

Date: April 2, 2015

### [Early Steps Down the Path of GSE Reform](#)

Author: Jim Parrott

Date: March 23, 2015

### [What to Make of the Dramatic Fall in GSE Profits](#)

Author: Jim Parrott

Date: March 16, 2015

### [The Impact of Early Efforts to Clarify Mortgage Repurchases: Evidence from Freddie Mac and Fannie Mae's Newest Data](#)

Authors: Laurie Goodman, Jim Parrott and Jun Zhu

Date: March 13, 2015

### [The US Treasury's Credit Rating Agency Exercise](#)

Authors: Laurie Goodman and Jim Parrott

Date: February 6, 2015

## Blog Posts

### [Broken mortgage servicing regulations limiting access to credit](#)

Author: Karan Kaul

Date: May 12, 2015

### [The cheapest homes fared better in the housing crisis, but only in certain regions](#)

Authors: Jun Zhu and Bing Bai

Date: May 4, 2015

### [What's behind the decline in first-time homebuyers?](#)

Authors: Bing Bai, Jun Zhu, and Laurie Goodman

Date: May 1, 2015

### [Home equity is outpacing mortgage debt, but it's not all good news](#)

Authors: Karan Kaul and Taz George

Date: April 21, 2015

### [Should policymakers address Fannie Mae and Freddie Mac's shrinking role in Multifamily Housing?](#)

Author: Karan Kaul

Date: April 16, 2015

### [Six things that might surprise you about alternative credit scores](#)

Author: Karan Kaul

Date: April 13, 2015

### [Tight credit has hurt minority borrowers the most](#)

Authors: Laurie Goodman, Jun Zhu and Taz George

Date: April 8, 2015

### [Four million mortgage loans missing from 2009 to 2013 due to tight credit standards](#)

Authors: Laurie Goodman, Jun Zhu and Taz George

Date: April 2, 2015

### [To understand mortgage default rates, ask these three questions](#)

Authors: Laurie Goodman, Ellen Seidman, Taz George and Jun Zhu

Date: March 30, 2015

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