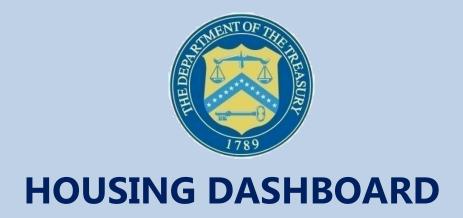
# **The Office of Economic Policy**



## February 17, 2016

Recent housing market indicators suggest that housing activity continues to strengthen. Solid residential investment in 2015Q4 contributed 0.3 percentage point to GDP growth.

Meanwhile, home price appreciation has moderated—from a double-digit pace in late 2013 and early 2014 to a more sustainable mid-single-digit pace now. This moderation occurs as high home values, in some areas, challenge affordability for potential homebuyers. In addition, home price valuations look to be somewhat elevated relative to pre-bubble norms.

Although some mortgage borrowers continue to struggle in the wake of the crisis, delinquency and foreclosure rates are closing in on their pre-crisis ranges. The number of distressed sales also continues to drop.

Now that most housing market indicators for the entirety of 2015 are available, this month's Housing Dashboard features a special topic reviewing housing market developments in 2015.

# **Housing Market Flash**

## **Housing Market Flash**

Wednesday, February 17, 2016

r		Wednesda	ay, February 1	7,2010			
							Current level
		Pre-bubble				versus pre-	
			norm		Current 12-month		bubble norm
		(2000-2002		Current	average vers	- 1	(2000-2002)
		average)	Trough	level	earlier va	lue	average
Single-fam	T -			1		1	
Sales (thousands)	New	921	270	544	14.1%	Improved	-40.9%
			Feb-11	Dec-15			
	Existing	4,779	3,060	4,820	6.7% Improve	Improved	0.8%
			Jul-10	Dec-15		mpiorea	
Inventory of homes	New	4.1	12.2	5.2	-0.3	Improved	1.1
available for sale (months' supply at current			Jan-09	Dec-15	month(s)		month(s)
	Existing	4.6	11.3	3.9	-0.4	Improved	-0.7
sales rate)			Jul-10	Dec-15	month(s)		month(s)
Construction activity (thousands)	Housing starts	1,289	353	731	10.1%	Improved	-43.3%
			Mar-09	Jan-16			
	Building permits	1,257	337	720	6.8%	Improved	-42.7%
			Jan-09	Jan-16			
<b>Prices</b> (index, Jan 2000 = 100)	CoreLogic HPI	115.7	137.3	186.4	5.0%	Improved	61.1%
	w/distressed sales		Nov-11	Dec-15			
	Inflation-Adjusted	111.6	101.9	136.0	6.3%	Improved	21.9%
	CoreLogic HPI		Nov-11	Dec-15			
Housing affordability		127	101.1	161.7	-1.0%		27.7%
(NAR, index=100 when median family income qualifies			Jul-06	Dec-15		Weakened	
for 80% LTV mortgage on a median priced home)			oui oo	D00 10			
Senti	ment						
Homebuilder		59	8	58	6		-1
(NAHB, over 50 means majo	rity view conditions		Jan-09	Feb-16	point(s)	Improved	point(s)
positively)						-	
		152	117	158	1		6
Home-buying conditions (Reuters/Umich, index = good time - bad time + 100)			Oct-08	Feb-16	point(s)	Improved	point(s)
					<i>γ</i> (- <i>γ</i>		P = -(-)
Demog	raphics	_	_				_
Household formation (thousands)		1113	100	461	290		-653
			2008-Q4	2015-Q4	thousands	Improved	thousands
(							
Homeownership rate		67.7	63.5	63.7	-0.8		-4
(percent)			2015-Q2	2015-Q4	percentage point(s)	Weakened	percentage point(s)
,							

# **Special Topic: 2015 in Review**

Housing market activity in 2015 posted solid gains, supported by a stronger labor market, low mortgage interest rates, and somewhat improved household formation. Stronger single- and multifamily construction activity contributed to higher residential investment compared with the level seen in 2014. However, construction activity and construction employment are low relative to their pre-crisis levels and relative to the level needed to support typical growth in the number of households and demolitions, suggesting that further improvements are likely.

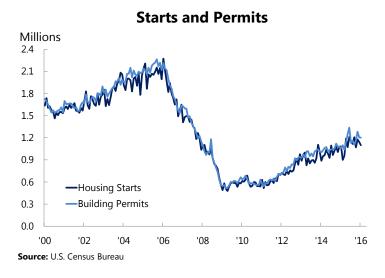
Also, new and existing home sales reached new, post-recession highs in 2015 as housing demand strengthened. Home prices rose in 2015, albeit at a more moderate and sustainable pace than in 2014, across all major home price indexes. Rising prices helped lift more borrowers from negative equity, though in states where home prices are still far below their earlier highs, negative equity remains more prevalent.

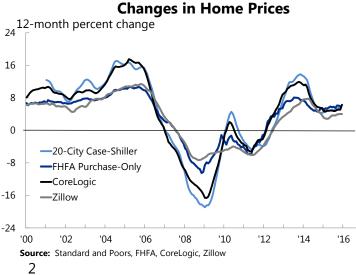
In the mortgage market, low mortgage interest rates helped support housing demand and home sales in 2015. Accordingly, mortgage originations for home purchases increased roughly in line with sales activity. However, borrowers, particularly those with less-than-pristine credit histories or low downpayments, continued to face difficulties obtaining a mortgage.

**New residential construction activity** continued to recover and hit an 8-year high in 2015. Housing starts increased to 1.106 million in 2015, the highest level since 2007. Building permits, a more stable and forward-looking indicator of construction activity, rose to 1.164 million, also the highest total since 2007. As a result, residential fixed investment increased 8.7 percent in 2015, up from just 1.8 percent in 2014, and contributed 0.3 percentage point to GDP growth.

#### Home prices grew at a modest pace.

After rising at high single-digit and low double-digit rates in 2013, home price growth has moderated to expand at low single-digit rates in 2015, ranging from a 3.5 percent for the Zillow Home Values Index to 5.4 percent for the FHFA Home Price Index.

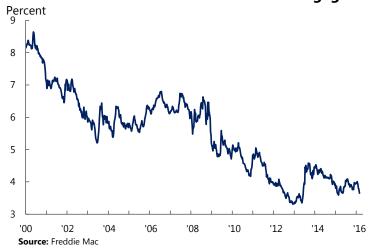




#### Mortgage interest rates remained low.

The average interest rate on new 30-year fixed-rate conventional mortgages settled was 3.85 percent in 2015, down from 4.17 percent in 2014, and only slightly higher than the 3.66 percent averaged in 2012. However, mortgage interest rates are expected to rise due to the Fed rate hikes in 2016.

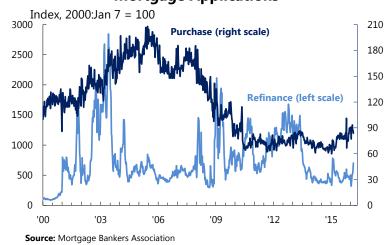
#### **Interest Rate of 30 Year Fixed-Rate Mortgages**



# Mortgage applications edged up thanks to an increase in purchase activity. The MBA Mortgage Applications Index inched up 1.6 percent in 2015, largely due to a 12 percent jump in purchase applications.

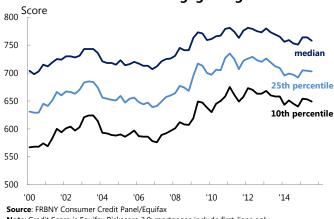
Refinance activity remained muted, with the annual average for 2015 4.9 percent below its year-earlier level, as many borrowers have already refinanced into lower rates.

#### Mortgage Applications



The median FICO score of newly originated mortgages fell slightly in 2015 from around 760 to around 750, up from roughly 700 in the early 2000s. At the 10th percentile, the FICO score for new mortgages was down to 642 by the end of 2015, compared with less than 600 in the early 2000s.

#### **Credit Score at Mortgage Origination**

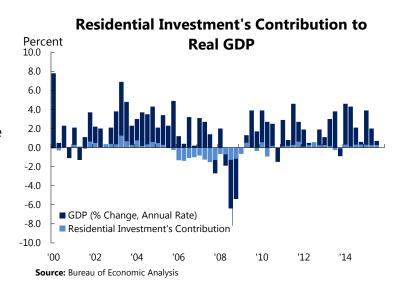


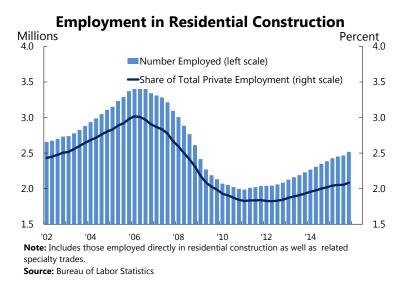
Note: Credit Score is Equifax Riskscore 3.0; mortgages include first-liens only.

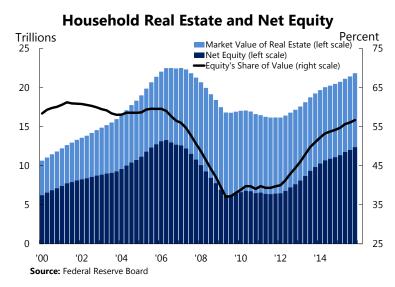
Residential investment continues to give a modest lift to GDP growth. Residential investment rose at an annual rate of 8.1 percent in 2015Q4, adding 0.3 percentage point to real GDP growth, matching the average contribution over the last four quarters. Data through January suggest that residential investment is on track to make a somewhat smaller gain in 2016Q1.

**Employment in residential construction continues to recover.** Over the past year, it has increased by 12,500 jobs per month, compared with 13,700 jobs per month in the year-earlier period. The level of employment remains relatively low: residential construction employment totaled just over 2.5 million workers in 2015Q4, accounting for roughly 2.1 percent of total private payroll employment, compared with around 2.6 percent in the early 2000s.

Housing wealth is nearing its earlier peak. The value of household real estate reached \$22 trillion in 2015Q3, up from a low of \$16 trillion in 2011Q4. The current level is close to its 2006Q4 peak, but the sustainable level is higher than in 2006 because of population-driven growth in the housing stock and overall inflation.







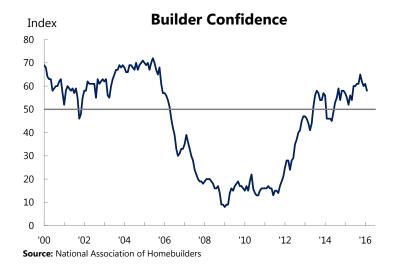
# **Housing Starts and Inventories**

New residential construction activity continues on its gradual upward trajectory despite some recent volatility.

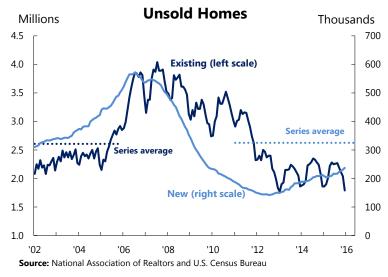
Single-family starts (light blue line) and permits (dark blue line) dipped in December. In the multifamily sector, construction activity is back in the range seen before the crisis, but the rapid rise in rents suggests that construction activity is not yet fully meeting demand.



In February, builder confidence fell to a 9-month low, but remained close to the 10-year high registered in October. The National Association of Homebuilders index has recorded readings above 50 (meaning a majority of builders view the market positively) for the last 20 months. All three of the index's components—sales expectations over the next six months, current sales, and buyer traffic—are above their 2014 averages.



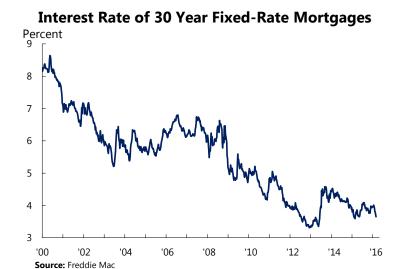
The inventory of homes for sale remains well below historical averages. The stock of existing homes for sale (dark blue line) was at 1.79 million units at the end of December, the lowest level since January 2013. The stock of new homes for sale (light blue line) was at 237,000. At the current sales pace, there is 3.9-month supply of existing homes available for sale; for new homes, the available inventory is equivalent to a 5.2-month supply.

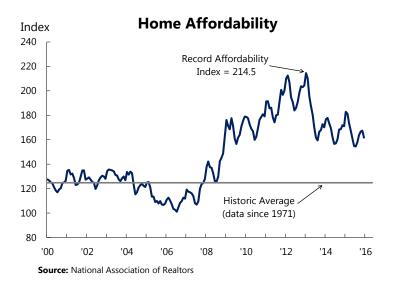


**Mortgage interest rates remain very low by historical standards.** The average interest rate on new 30-year fixed-rate conventional mortgages settled at a 9-month low of 3.65 percent in the week ending February 11. The current rate is only 34 basis points higher than the lowest rate recorded in 2012.

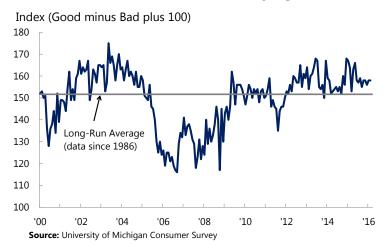
The National Association of Realtors
Housing Affordability Index suggests that
housing remains affordable for the typical
family. The index declined for the first time
in five months in December. The rebound in
house prices accounts for much of the
decline in affordability since its peak in 2013.
(Note that the index assumes a 20 percent
down payment; interest rates would be
higher and affordability would be lower for a
family that made a smaller down payment).

# Households remain positive about home buying conditions. The University of Michigan Consumer Survey's "Good Time to Buy" Index remained higher than the long-term average in mid-February. Low interest rates continue to be the main factor cited when respondents were asked why homebuying conditions are good.

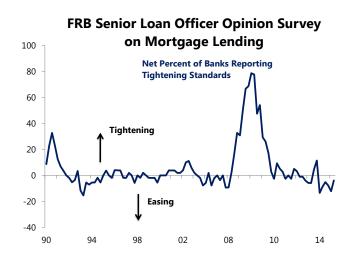




#### **Attitudes Towards Buying**



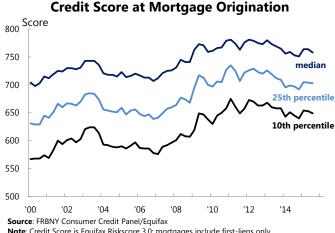
Senior loan officers at banks report easing of mortgage lending standards in recent quarters. Despite two quarters of moderate tightening at the end of 2014, the last four quarters mark a period of sustained easing since the period of dramatic tightening during the financial crisis. (Note that the level of the line shown corresponds to the change in lending standards, with values below 0 representing an easing of lending standards and values above 0 representing a tightening).



Despite the easing, lending is still restrained, and riskier borrowers continue to have very limited access to mortgage credit. Mortgage originations have been rising over the past year, but the pick-up has been driven largely by borrowers with credit scores above 780. Originations by borrowers with credits scores below 780 are well below pre-crisis levels. Almost no mortgages are being extended to borrower with FICO scores below 660.

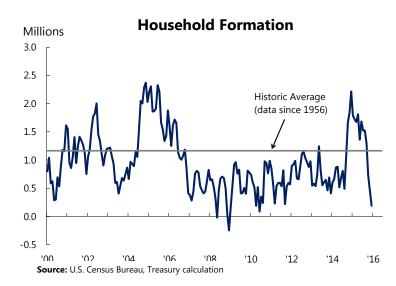
**Mortgage Originations by Credit Score** Billions of dollars ■ <620 ■ 620-659 ■ 660-719 ■ 720-779 ■ 780+</p> 1,000 800 600 400 200 % 6, ŝ 8 0

The median FICO score of newly originated mortgages has fallen slightly in recent quarters to around 750, but it is still up from roughly 700 in the early 2000s. At the 10th percentile, the FICO score for new mortgages was down to 642 by the end of 2015, compared with less than 600 in the early 2000s.



### Household formation fell sharply in

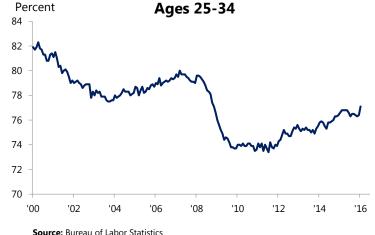
**2015Q4.** Between mid-2006 and 2014Q3, the rate of household formation averaged roughly half its historical average of 1.2 million per year. Household formation surged at the end of 2014 and remained above its historical average through 2015Q3. However, household formation slowed drastically in the fourth quarter. In the year ending in December, just 191,000 households were formed.



# The proportion of young adults who are working has seen a partial recovery. The employment-to-population ratio for individuals ages 25-34 has reversed over half of the decline that occurred during the recession. The strengthening labor market should support household formation going

forward.

## **Employment-to-Population Ratio**



# Higher rents are an obstacle to young adults establishing their own households.

The supply of rental housing appears to have not risen as fast as demand and, as a result, rents have been increasing rapidly. They outpaced overall inflation by 3 percentage points over the year ending in December.

#### **Growth in Rents vs. Overall Inflation**



# Homeownership

The homeownership rate edged up in 2015Q4. The homeownership rate was 63.7 percent in 2015Q4, up from 63.5 in 2015Q2, which was the lowest reading since 1967Q4. The homeownership rate may stagnate in coming quarters as household formation continues to recover because newly formed households are more likely to rent before purchasing a home.



First-time home buyers account for around half of purchase mortgage originations. The share of newly originated mortgages going to first-time buyers was 51.2 percent in December. Smoothing through the normal seasonal fluctuations, the series appears to be on an uptrend—it was 50.2 percent a year earlier.

Percent First-time Buyers

53

51

49

47

13

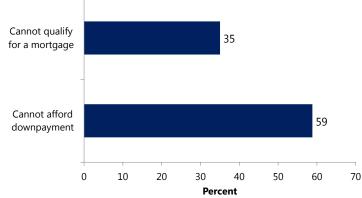
14

15

Source: American Enterprise Institute

87 percent of households headed by young adults that are renting say that they would prefer to own if they could afford it. Of those households, the most commonly cited reasons for not owning are lack of downpayment (59 percent) and not being able to qualify for a mortgage to buy a home (35 percent).

# Primary Reasons for Renting among Young Renters who Prefer to Own



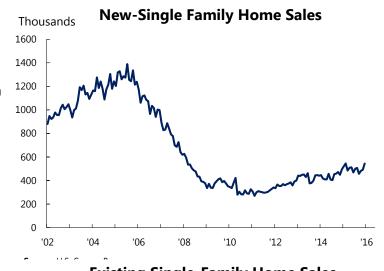
**Source**: Report on Economic Well-Being of U.S. Households in 2014, Federal Reserve Board

Home Sales February 2016

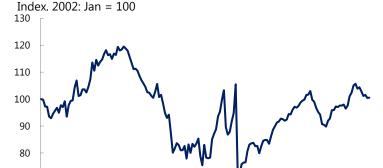
New single-family home sales have rebounded in recent months but are above their levels of a year ago. At an annual rate of 544,000 in December, they were 24 percent above their average level in 2014. New single-family home sales averaged 502,000 units for all of 2015, the best annual performance since 2007. Still, the current pace of sales is still only about half the level seen prior to the boom in the early 2000s.

Sales of existing single-family homes bounced back in December following declines in the previous two months, which were due in part to new disclosure requirements for mortgages originated after October 1. The new requirements have reportedly increased the amount of time it takes to close on a sale. Existing single-family home sales averaged 5.23 million units in 2015, up 6.3 percent from 2014, and the highest annual total since 2006. (January data will be released on February 23).

The National Association of Realtors index of pending sales of existing homes ticked up in December and was above its level of a year ago. The index is a leading indicator of existing home sales which are recorded at the closing of the sale. The National Association of Realtors is projecting that existing home sales will rise 1.5 percent in 2016.







'08

'10

'06

Source: National Association of Realtors, Treasury Calculation

**Pending Existing Home Sales** 

'12

'14

'16

70

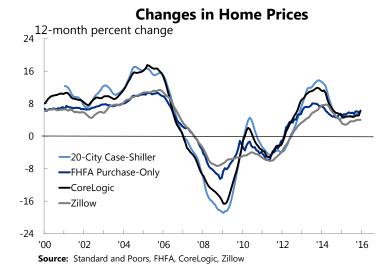
60

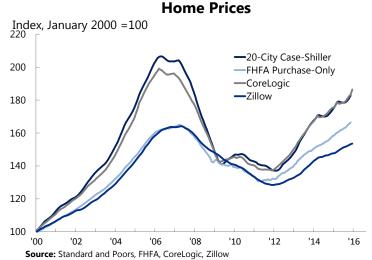
Home Prices February 2016

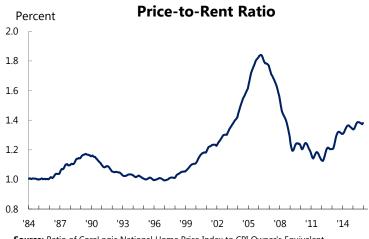
After rising at a high single-digit to low-double-digit pace in late 2013 and early 2014, the pace of home price appreciation has eased. Home prices are now growing at a more sustainable low-to-mid single-digit pace.

Home prices remain below their precrisis peaks. Most measures for the nation as a whole are currently around early 2005 levels. Forecasters generally believe that home price appreciation will remain moderate going forward. Participants in the 2016Q1 Pulsenomics/Zillow home price survey expect home prices to rise 3.7 percent over the four quarters of 2016.

The ratio of home prices to rents, a common way to assess whether home prices are overvalued, remains well below its pre-crisis peak. That said, the substantial appreciation of home prices since late 2012 has pushed up this ratio, and it is now noticeably above its pre-crisis range.







**Source:** Ratio of CoreLogic National Home Price Index to CPI Owner's Equivalent Rent. Both Indexes set to 100 in January 1983.

# Applications for home purchase mortgages have been volatile of late.

The Fed rate hike and new mortgage disclosure requirements may have caused fluctuations in recent months. Purchase applications remain well below pre-crisis levels. Refinancing activity has been very low since mid-2013 as most borrowers who have been able to refinance have already done so.

# New mortgage originations have increased over the past year but remain low by pre-crisis standards.

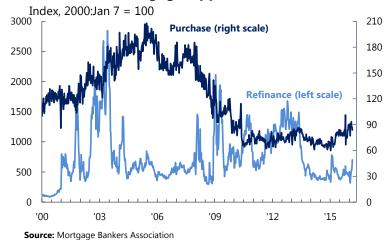
New mortgage originations rose to \$437 billion in 2015Q4, up from a low of \$354 billion in 2014Q4. The low level of mortgage originations stands in contrast to the pattern of some other forms of household credit, including auto loan originations, which have been increasing briskly along with sales and now stand near the top of their historical range.

# The share of new mortgage originations backed by the government has fallen since its 2009 high, but remains significantly higher than pre-crisis levels. About 70 percent of new mortgages were backed by the FHA, VA, or GSEs in the first three quarters of 2015 (dark blue and light blue portions of bars). While bank portfolio lending has increased noticeably, the

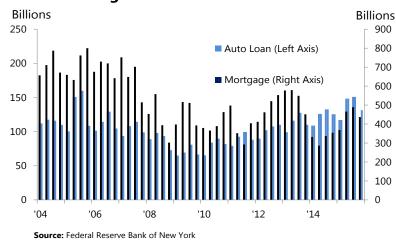
private-label mortgage-backed securities market has experienced essentially no

recovery since collapsing in late 2007.

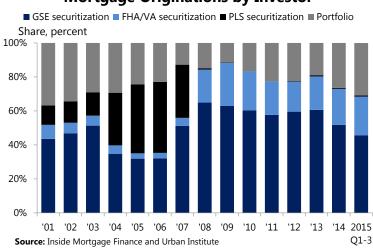
### **Mortgage Applications**



### **New Originated Installment Loan Balances**

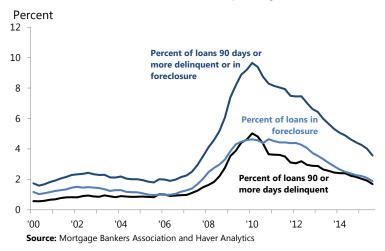


#### **Mortgage Originations by Investor**



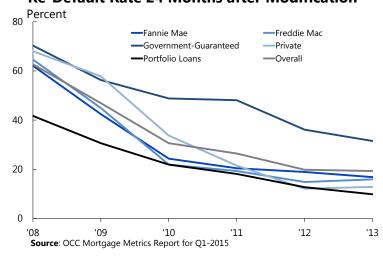
Mortgage foreclosure and delinquency rates continue to normalize. The share of homes in foreclosure declined to 1.9 percent of outstanding loans in 2015Q3. The rate of mortgages in default (90+ days delinquent or in foreclosure) fell to 3.6 percent in 2015Q3, compared with a pre-crisis average of around 2 percent.

#### **Foreclosure and Delinquency Rates**



Re-default rates for borrowers who have received a mortgage modification have run significantly lower for mortgages that were modified more recently. Mortgages that were modified in 2013 (24 months ago) had re-default rates that were between 32 and 55 percentage points lower than those modified in 2008.

**Re-Default Rate 24 Months after Modification** 



The shares of sales represented by REO sales and short sales have trended down over the past 3 years. In November 2015, REO sales ticked up to nearly 9 percent of total sales while short sales remained around 3 percent.

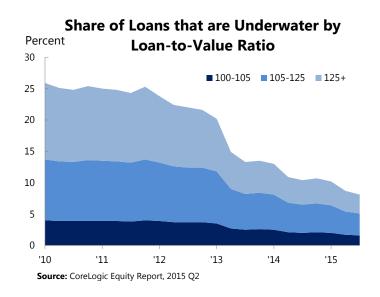
**Distressed Sales as a Percent of Total Sales** Percent ■ Short Sales Share ■ REO Sales Share 35 30 25 20 15 10 '06 '07 '09 110 111 12 '13 '14 '15 Source: CoreLogic

# Rising home prices have greatly reduced the number of underwater borrowers.

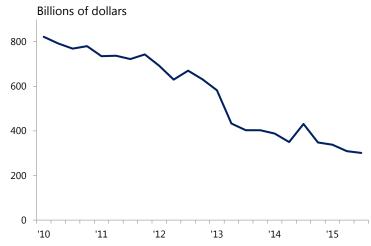
The share of mortgage loans with negative equity was 8.1 percent in 2015Q3, down from 10.2 percent in 2015Q1. The number of homes now underwater stands at 4.1 million, a 66 percent drop since the 2011 peak. Mortgages that are very underwater, with negative equity exceeding 25 percent, have declined and are now 37 percent of all underwater mortgages.

The aggregate amount of negative equity continues to fall. Since 2010Q1, aggregate negative equity has fallen from over \$800 billion to around \$300 billion in 2015Q3.

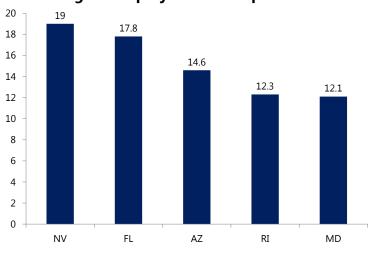
Negative equity rates are still very high in some states. Around 20 percent of mortgaged residential properties in Nevada and Florida still have negative equity. However, these rates have fallen by more than half in these two states since the beginning of 2013.



### **Amount of Negative Equity**



#### **Negative Equity Share in Top 5 States**



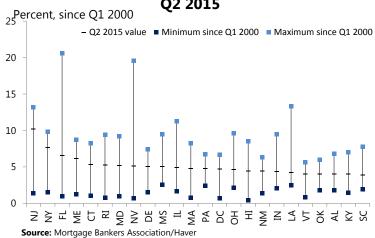
State Detail February 2016

# Serious delinquencies have fallen across the country but the degree of

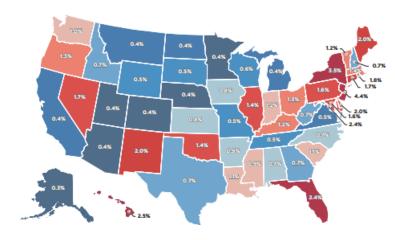
improvement varies by state. They remain near peak levels in some states, particularly in judicial foreclosure states such as New Jersey and New York. However, serious delinquencies are down nearly 64 percent from their peak in Florida, a judicial state that passed a law in June 2013 speeding up the foreclosure process. Serious delinquencies have also fallen markedly in hard-hit areas with flexible foreclosure laws, such as Nevada.

# Foreclosure inventories have declined in many states but remain relatively high in others. Judicial foreclosure is an important factor: 13 of 23 states that employ the practice have noticeably elevated rates (shaded red). Other states with high inventories, like Nevada, are still struggling economically.

# Serious Delinquencies for 25 Highest-Rate States: Q2 2015



# Foreclosure Inventories by State as a Percent of All Mortgage Homes



Source: CoreLogic Market Pulse, data as of November 2015