Freddie Mac
We make home possible®

Office of the Chief Economist

May 2015 U.S. Economic & Housing Market Outlook

Can Housing Handle Higher Mortgage Rates?

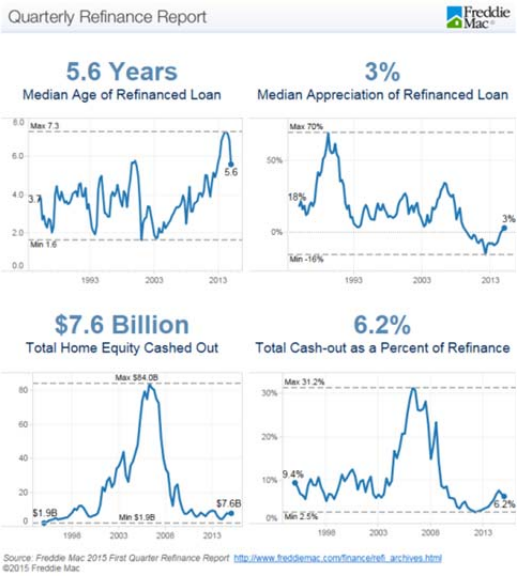
Summary (page 2)

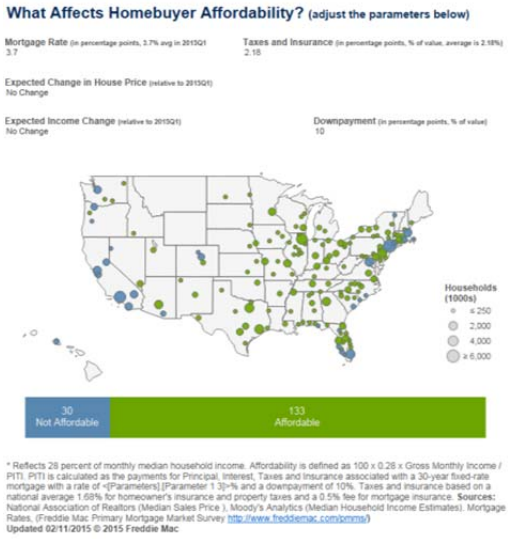
Can the ongoing housing recovery handle higher mortgage rates? We saw housing stumble in 2013 when rates rose sharply in May and June of that year, increasing by a full percentage point over those two months. Home sales slowed significantly in response and are only now returning to similar levels. Rising rates will reduce homebuyer affordability; making homeownership in high cost markets that much further out of reach. Rising rates and continued house price appreciation will squeeze affordability even in today's low cost markets. Housing looks strong enough to weather moderately rising rates, but we need real income growth to support homebuyer demand.

Forecast Update (page 6)

Forecast Summary	2015	2016
Real GDP Growth (%)	2.3	2.7
30-Year Fixed Mtg. Rate (%)	4.0	4.9
FMHPI House Price Appreciation (%)	4.5	3.5
1-4 Family Mortgage Originations ($ Billions)	1,350	1,275

Interactive Features (page 7)

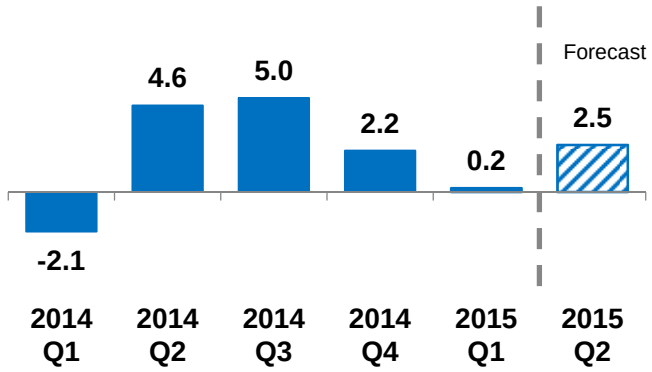




Is Housing Ready for Higher Mortgage Rates?

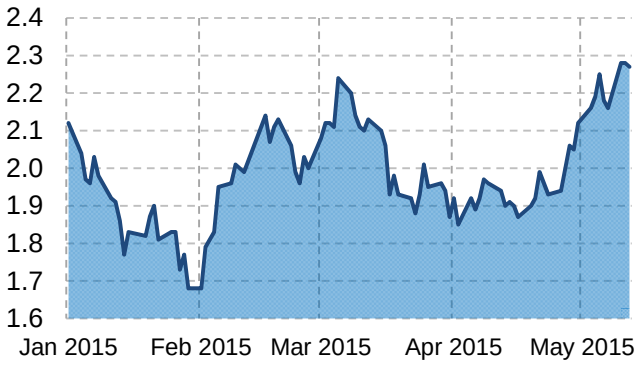
Economic growth in the first quarter of 2015 is looking weak. The Bureau of Economic Analysis's initial estimate of Real GDP growth came in at 0.2 percent on an annualized basis, but tracking reports indicate that the final estimate will ultimately dip below zero. Second quarter data is looking better, but there's no doubt that economic growth has slowed from the second half of last year. Yet despite the lack of great news here in the U.S., improved outlooks for European economies have driven interest rates in the U.S. up recently.

Quarterly Real GDP Growth
Percentage Points, SAAR
Source: Freddie Mac, Bureau of Economic Analysis



Following a selloff in German bond markets, interest rates have risen sharply over the past few weeks close to the levels we saw in early March. In March, rates crested above 2.2 percent for the 10-year Treasury and then drifted back below 2 percent for about a month. Rates might well ease up again over the next few weeks, and are likely headed higher by year's end.

10-Year Treasury Yields
Source: Federal Reserve H.15;
Daily Constant Maturity Yields (%)



Taper Talk Redux?

How fast rates rise is a function of international economic growth, domestic economic growth, Federal Reserve policy, and markets' expectations of these three factors. We expect interest rates to rise over the remainder of 2015, with the potential for significant volatility around possible Federal Reserve policy changes. Most analysts anticipate that the Federal Reserve will begin raising the Fed Funds rate sometime this year, perhaps as early as June, though most analysts anticipate a September rate hike. If the labor market does not stumble over the next couple months or the Federal Reserve does not signal a shift in likely future policy, rates will likely start increasing by midsummer or perhaps we are already at the beginning of this cycle.

If rates do rise, how will housing markets respond? Can the ongoing housing recovery handle higher mortgage rates? We saw housing stumble in 2013 when rates rose sharply in May and June of that year, increasing by a full percentage point over a two month period. Home sales slowed significantly in response and are only now returning to similar levels.

Rising rates will reduce homebuyer affordability; making homeownership in high cost markets that much further out of reach. Rising rates and continued house price appreciation will squeeze affordability even in today's low cost markets. With tight inventories of for sale homes, house price growth is unlikely to slow and homebuyer affordability is likely to wane in coming months.

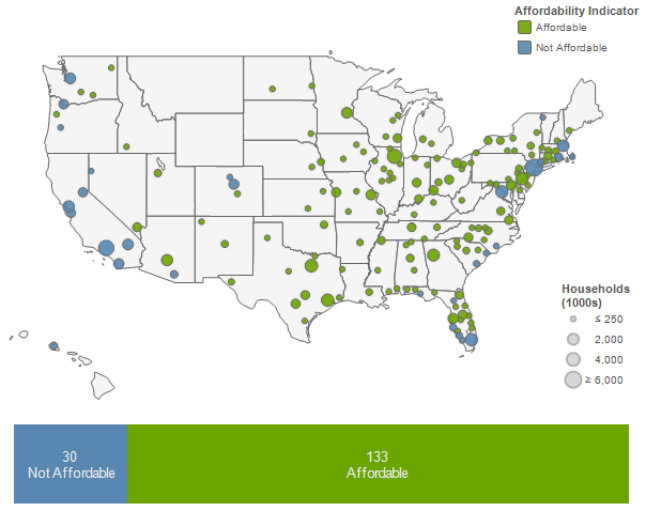
Interest Rate Effects on Housing Markets

By driving down homebuyer affordability, rising rates are likely to slow home sales and new home construction. Overall economic growth will likely also slow due to a slower recovery in residential construction and business investment. Let's consider how rising rates will affect homebuyer affordability, and how housing markets responded in 2013 when interest rates rose rapidly.

Affordability Today

With mortgage rates below 4 percent, homebuyer affordability remains high today, despite strong house price gains and a lack of any appreciable income growth in recent years. As of the first quarter 2015, most metro areas in the U.S. are affordable using traditional affordability calculations. Each quarter we use data from the National Association of Realtors together with income estimates from Moody's Analytics, our own mortgage rate survey, and assumptions about taxes, insurance and down payments to calculate homebuyer affordability across the country. In the latest data, for 2015Q1, 133 out of 163 metro areas we track were affordable to a median income earning household looking to buy a median priced home.

Homebuyer Affordability in 2015Q1



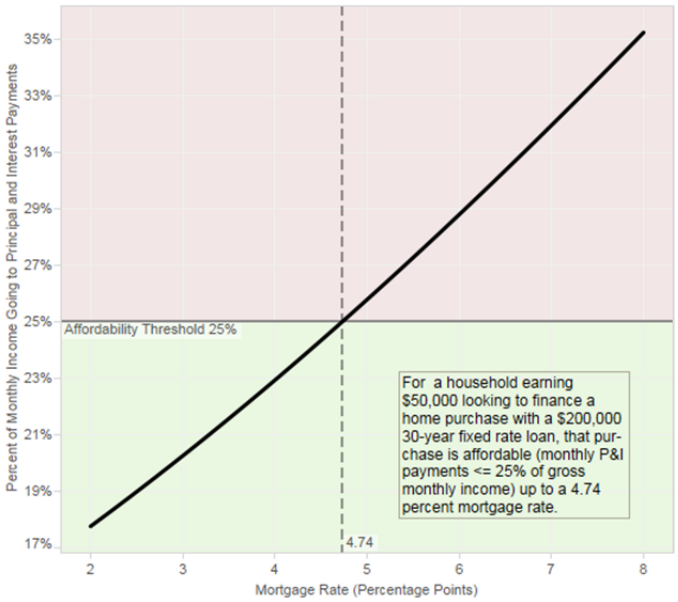
*Reflects 28 percent of monthly median household income. Affordability is defined as 100 x 0.28 x Gross Monthly Income / PITI. PITI is calculated as the payments for Principal, Interest, Taxes and Insurance associated with a 30-year fixed-rate mortgage with a rate of 3.7% and a downpayment of 10%. Taxes and insurance based on a national average 1.68% for homeowner's insurance and property taxes and a 0.5% fee for mortgage insurance. **Sources:** National Association of Realtors (Median Sales Price), Moody's Analytics (Median Household Income Estimates). Mortgage Rates, (Freddie Mac Primary Mortgage Market Survey http://www.freddiemac.com/pmms/)
Updated 02/11/2015 © 2015 Freddie Mac

The areas that are unaffordable by our metric are the high cost markets of the Western US and the eastern seaboard. Much of the Midwest and South (with the exception of Florida) is highly affordable.

Interest Rate Effects on Affordability

But homebuyer affordability calculations are highly interest rate sensitive. If interest rates were to rise to 5 percent without any change in incomes and house prices, only 108 out of 163 metros would be affordable. The graphic below illustrates how a traditional affordability metric (no more than 25 percent of gross monthly income going to monthly Principal and Interest payments) responds to rising interest rates. For a loan of $200,000 financed with a 30-year fixed rate mortgage and a household earning $50,000 per year, the purchase becomes unaffordable at a mortgage rate of about 4.74 percent. (For more on affordability, see our interactive affordability map, described in our interactive features section below and available on our webpage.)

How do mortgage rates affect affordability?
Percent of income going to monthly principal and interest payments for a household earning $50,000 with a 30-year fixed rate loan of $200,000.

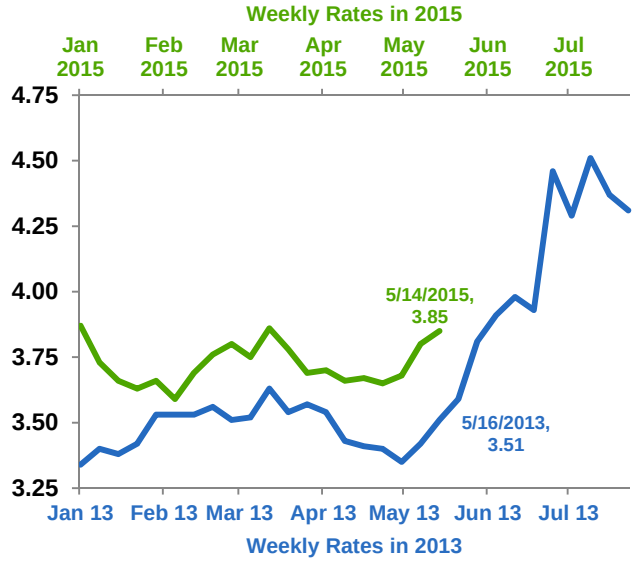


History doesn't repeat but sometimes it rhymes

Let's begin by considering trends in mortgage applications and home sales following the rate increases of May and June 2013, a time period often characterized by "Taper Talk" (link) a term for market reactions to comments by then Fed Chair Ben Bernanke regarding the eventual Taper of bond purchases. While the Taper Talk is often cited as the core driver of rate increases, Chairman Bernanke's comments took place on June 19, 2013 well after rate increases had begun.

Entering May 2013, 30-year fixed mortgage rates stood at 3.40 percent according to our Primary Mortgage Market Survey and by the last week of June had risen to 4.46 percent. Entering May 2015, 30-year fixed mortgage rates stood at 3.68 percent and we've seen rates rise 0.17 percentage points in the first two weeks of May.

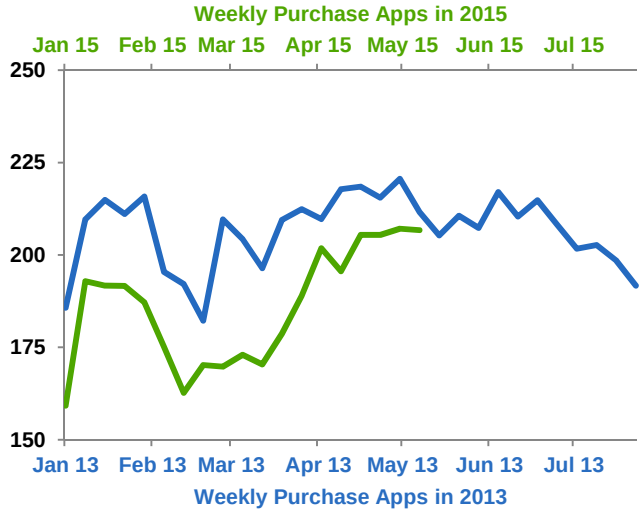
30-Year Fixed Mrtg. Rate 2013 vs 2015
Source: Freddie Mac Primary Mortgage Market Survey; U.S. Weekly Averages (%)



While we (so far) lack for a Taper Talk igniting event, interest rates seem to be rising at least partially due to anticipation of potential Federal Reserve policy changes. With liftoff looming we could see rates in 2015 follow similar pattern. What happened in 2013 when interest rates rose so fast?

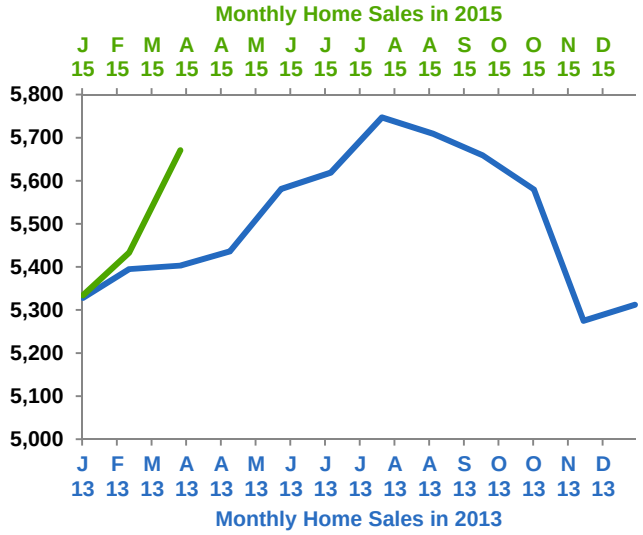
Following the rate increases, applications for home purchases declined almost immediately. On a seasonally-adjusted basis, the MBA's total market purchase application index peaked in early May 2013, and declined sharply following the rise in interest rates. In 2015, purchase applications have been trending higher throughout the year, but have started to level off in early May.

Purchase Applications 2013 vs 2015
Source: MBA Applications Survey, Moody's Analytics; Total market - Purchase; (Index 16mar1990=100; SA)



Home sales responded slower than purchase applications, peaking on a seasonally-adjusted basis in July of 2013, but declining sharply thereafter.

Total Home Sales 2013 vs 2015
Source: NAR, Census/HUD; 1000s, Seasonally-Adjusted Annual Rate



The Response of Refinance Activity

Rising rates will dramatically lower refinance volumes. With low rates throughout the first four months of this year, refinance activity has been much stronger than expected. Based on incoming data showing strong refinance activity, we have revised up our forecasts for 2015 mortgage originations. But if rates rise sharply, then refinance activity will fall quickly.

Conclusion:

While the comparison of 2013 to 2015 is striking, not all economic conditions are the same. Over the past two years, the labor market has added over 5 million additional jobs, the unemployment rate has fallen by more than 2 percentage points and housing markets are generally in much better condition than two years ago.

Housing markets should be able to weather moderately rising interest rates if we start to see some wage and income growth. Our analysis has shown that while many markets look highly affordable today, the story can change quickly if interest rates and house prices rise without any offsetting income growth.

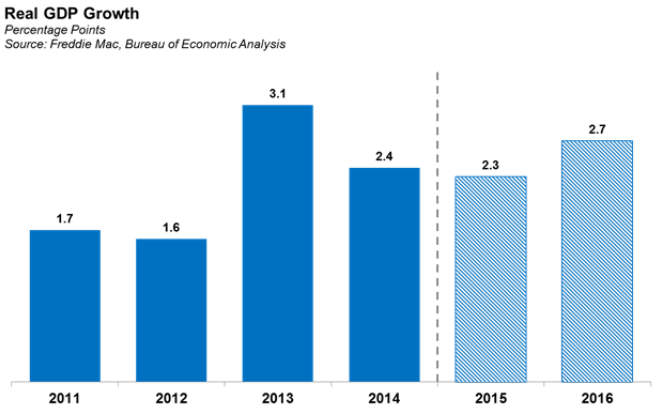
.

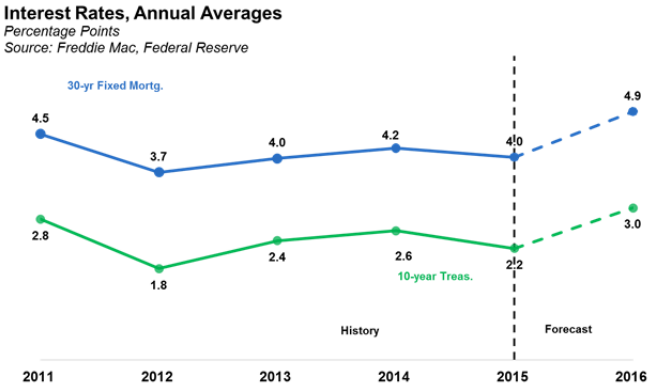
Forecast Update

Major Economic Indicators

Based on incoming data so far, we have revised down our second quarter Real GDP growth to 2.5 percent (from 3.0 percent growth a month earlier). The third quarter GDP growth was revised up to 3.3 percent growth. Overall we estimate Real GDP will grow 2.3 percent in 2015, revised from a 2.6 percent growth previously estimated. We also revised up our quarterly CPI forecasts for both 2015 and 2016. We increased the CPI forecast for 2015 by 0.2 percent to a 1.0 percent increase. The 2016 forecast is up by 0.3 percent to 2.3 percent increase for the year.

Our unemployment rate projections for 2015 and 2016 were unchanged from the prior month at 5.4 percent and 5.1 percent respectively. Our interest rate projections for 2015 and 2016 were also unchanged from our April's Outlook.

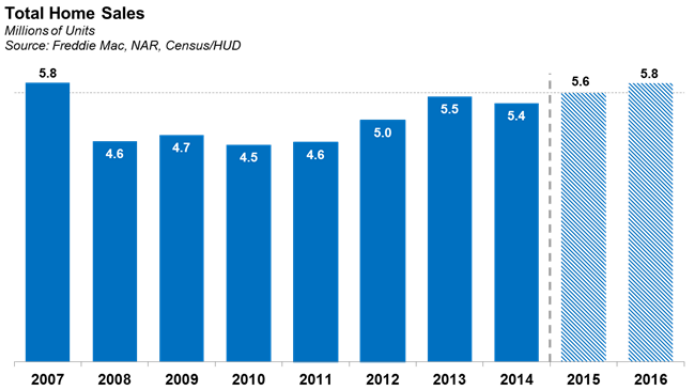


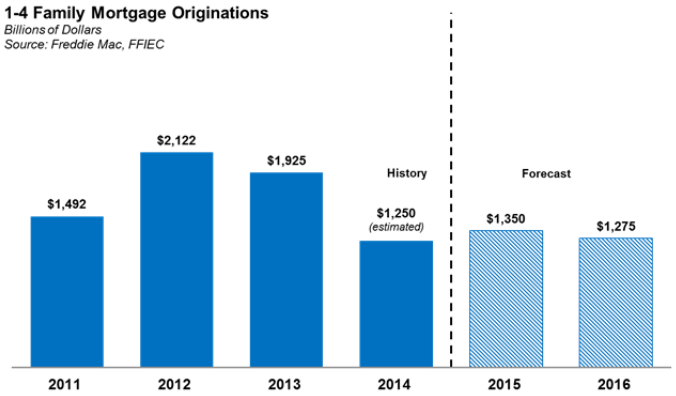


Housing and Mortgage Markets

With mortgage rates remaining low, our forecasts for home sales (5.6 million in 2015) and housing starts (1.18 million in 2015) are unchanged from last month. Due to stronger than expected house price growth in the first quarter (1.6 percent), we are expecting house prices to increase 4.5 percent in 2015.

Along with higher expectations for house price growth, we increased our forecast for mortgage originations by $50 billion up to $1.35 trillion in 2015. For 2016, we see originations tapering a bit to 1.275 trillion as we expect refinance volume to decline by over 50 percent.





Interactive Features

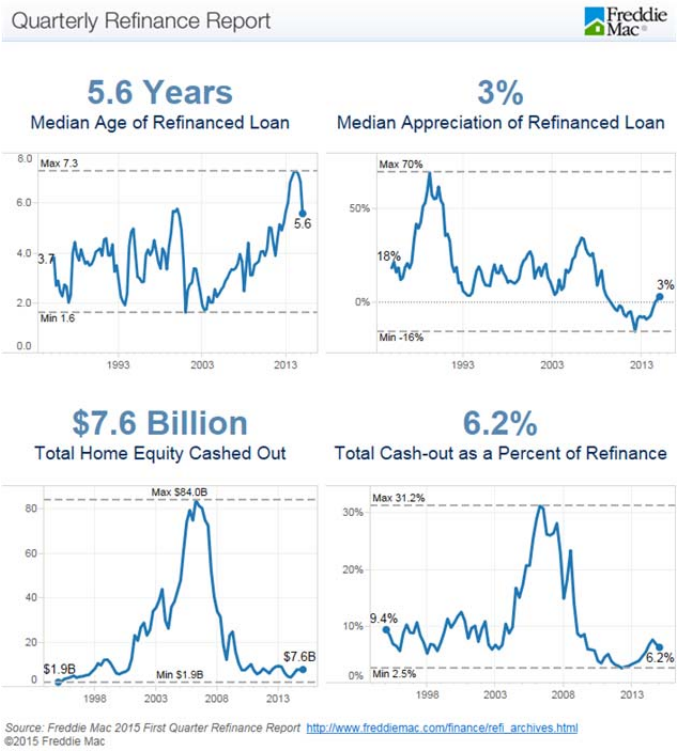
Freddie Mac Quarterly Refinance Report

We regularly provide innovative interactive charts on Freddiemac.com to support our analysis of housing and mortgage markets. Here are some of the highlights from this month.

2015 Q1 Refinance Report

Did you know that borrowers who refinanced in the first quarter of 2015 will save on net over $1.4 billion in interest over the first 12 months of their new loan? Freddie Mac's Quarterly Refinance Report compiles statistics on the percent of Freddie Mac-owned loans that were refinanced and resulted in new mortgages at least five percent higher in amount than the original mortgages, the median age of the refinanced loan, the median amount of appreciation on the property since the previous loan was originated. The report also provides cash-out volume estimates such as: total cash-out dollars as a percentage of aggregate refinanced originations UPB; total home equity cashed out; total volume of 2nd mortgages/HELOC consolidation.

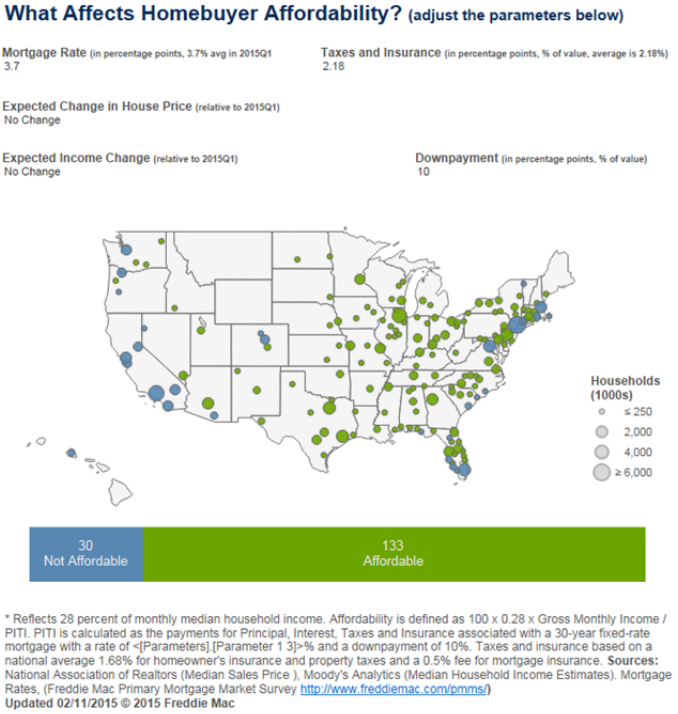
See the Report:
http://www.freddiemac.com/finance/refinance_report.html



2015 Q1 Affordability Map

How far potential buyers have to stretch (or not) to afford a home depends on where they live, how much they put toward a down payment as well as local taxes and insurance among other things. All these factors and more can be adjusted using our interactive affordability map, including if a pay raise is expected this year.

Thirty U.S. metros were not affordable as of the first quarter, that's down from 37 in the fourth quarter of last year and down from 36 from the same time last year. Of the markets tracked, 133 remained affordable. Of the three affordability components, nationally, house prices rose 1.6%, incomes rose a measly 0.7%, while mortgage rates declined from an average of 3.97% to 3.73% for a 30-year fixed-rate mortgage based on our survey from the previous quarter.



U.S. Economic & Housing Market Outlook Team

Leonard Kiefer, Deputy Chief Economist
Penka Trentcheva, Statistician
Travell Williams, Statistician
Melody Fu, Financial Analyst

May 19, 2015

www.freddiemac.com/news/finance chief_economist@freddiemac.com

Opinions, estimates, forecasts and other views contained in this document are those of Freddie Mac's Office of the Chief Economist, do not necessarily represent the views of Freddie Mac or its management, should not be construed as indicating Freddie Mac's business prospects or expected results, and are subject to change without notice. Although the Office of the Chief Economist attempts to provide reliable, useful information, it does not guarantee that the information is accurate, current or suitable for any particular purpose. The information is therefore provided on an "as is" basis, with no warranties of any kind whatsoever. Information from this document may be used with proper attribution. Alteration of this document is strictly prohibited.

© 2015 by Freddie Mac

May 2015 Economic and Housing Market Outlook

Revised 5/12/2015

Indicator	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	Annual Totals 2011	2012	2013	2014	2015	2016
Real GDP (%)	-2.1	4.6	5.0	2.2	0.2	**2.5**	**3.3**	**3.0**	**2.7**	**2.7**	**2.7**	**2.7**	1.7	1.6	3.1	2.4	**2.3**	**2.7**
Consumer Prices (%) a.	2.1	2.4	1.2	-0.9	-3.1	**2.1**	**2.7**	**2.2**	**2.3**	**2.3**	**2.3**	**2.3**	3.3	1.9	1.2	1.2	**1.0**	**2.3**
Unemployment Rate (%) b.	6.6	6.2	6.1	5.7	5.6	**5.4**	**5.3**	**5.2**	**5.2**	**5.1**	**5.1**	**5.0**	8.9	8.1	7.4	6.2	**5.4**	**5.1**
30-Year Fixed Mtg. Rate (%) b.	4.4	4.2	4.1	4.0	3.7	**3.8**	**4.1**	**4.3**	**4.5**	**4.7**	**5.0**	**5.2**	4.5	3.7	4.0	4.2	**4.0**	**4.9**
5/1 Hybrid Treas. Indexed ARM Rate (%) b.	3.1	3.0	3.0	3.0	2.9	**2.9**	**3.2**	**3.4**	**3.7**	**4.0**	**4.3**	**4.6**	3.3	2.8	2.9	3.0	**3.1**	**4.2**
1-Year Treas. Indexed ARM Rate (%) b.	2.5	2.4	2.4	2.4	2.4	**2.4**	**2.5**	**2.6**	**2.7**	**2.8**	**3.0**	**3.2**	3.0	2.7	2.6	2.4	**2.5**	**2.9**
10-Year Const. Mat. Treas. Rate (%) b.	2.8	2.6	2.5	2.3	2.0	**2.0**	**2.2**	**2.4**	**2.6**	**2.9**	**3.1**	**3.3**	2.8	1.8	2.4	2.6	**2.2**	**3.0**
1-Year Const. Mat. Treas. Rate (%) b.	0.1	0.1	0.1	0.2	0.2	**0.3**	**0.6**	**0.9**	**1.1**	**1.6**	**2.1**	**2.6**	0.2	0.2	0.1	0.1	**0.5**	**1.9**

Indicator	2014 Q1	2014 Q2	2014 Q3	2014 Q4	2015 Q1	2015 Q2	2015 Q3	2015 Q4	2016 Q1	2016 Q2	2016 Q3	2016 Q4	Annual Totals 2011	2012	2013	2014	2015	2016
Housing Starts c.	0.93	0.99	1.03	1.06	0.97	**1.15**	**1.20**	**1.25**	**1.30**	**1.35**	**1.45**	**1.50**	0.61	0.78	0.92	1.00	**1.14**	**1.40**
Total Home Sales d.	5.11	5.31	5.49	5.53	5.48	**5.65**	**5.65**	**5.65**	**5.70**	**5.80**	**5.80**	**5.90**	4.57	5.03	5.52	5.38	**5.61**	**5.80**
FMHPI House Price Appreciation (%) e.	1.6	0.8	1.0	1.5	1.6	**1.0**	**1.0**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	-3.2	6.2	9.6	5.0	**4.5**	**3.5**
S&P/Case-Shiller® Home Price Index (%) f.	1.4	-0.2	1.2	2.2	**1.6**	**1.0**	**1.0**	**0.9**	**0.9**	**0.9**	**0.8**	**0.8**	-3.7	6.6	10.8	4.6	**4.5**	**3.5**
1-4 Family Mortgage Originations g.																		
Conventional	**$198**	**$257**	**$278**	**$255**	**$274**	**$320**	**$264**	**$216**	**$200**	**$312**	**$308**	**$200**	$1,206	$1,750	$1,570	**$988**	**$1,074**	**$1,020**
FHA & VA	$52	$63	$71	$75	$76	**$80**	**$66**	**$54**	**$50**	**$78**	**$77**	**$50**	$286	$372	$355	$259	**$276**	**$255**
Total	**$250**	**$320**	**$350**	**$330**	**$350**	**$400**	**$330**	**$270**	**$250**	**$390**	**$385**	**$250**	$1,492	$2,122	$1,925	**$1,250**	**$1,350**	**$1,275**
ARM Share (%) h.	11	11	10	11	6	**8**	**9**	**9**	**13**	**14**	**15**	**16**	11	10	9	11	**8**	**15**
Refinancing Share - Applications (%) i.	52	45	50	60	63	**50**	**40**	**40**	**39**	**38**	**36**	**33**	71	77	63	52	**49**	**37**
Refinancing Share - Originations (%) j.	**44**	**38**	**42**	**50**	**57**	**45**	**35**	**34**	**32**	**32**	**29**	**25**	64	70	59	**43**	**43**	**30**
Residential Mortgage Debt (%) k.	-0.8	0.1	1.1	1.1	**1.5**	**2.0**	**2.0**	**2.5**	**2.5**	**3.0**	**3.0**	**3.5**	-2.1	-1.7	-0.5	0.4	**2.0**	**3.0**

Note: Quarterly and annual forecasts are shown in shaded areas; totals may not add due to rounding; quarterly data expressed as annual rates.
Annual forecast data are averages of quarterly values; annual historical data are reported as Q4 over Q4.

a. Calculations based on quarterly average of monthly index levels; index levels based on the seasonally-adjusted, all-urban consumer price index.
b. Quarterly average of monthly unemployment rates (seasonally-adjusted); Quarterly average of monthly interest rates.
c. Millions of housing units; quarterly averages of monthly, seasonally-adjusted levels (reported at an annual rate).
d. Millions of housing units; total sales are the sum of new and existing single-family homes;quarterly averages of monthly, seasonally-adjusted levels (reported at an annual rate).
e. Quarterly growth rate of Freddie Mac's House Price Index; seasonally-adjusted; annual rates for yearly data.
f. National composite index (quarterly growth rate), seasonally-adjusted; annual rates for yearly data.
g. Billions of dollars (not seasonally-adjusted); conventional for 2014 are Freddie Mac estimates.
h. Federal Housing Finance Agency (FHFA); quarterly averages of monthly shares of number of loans of conventional, home-purchase mortgage closings (not seasonally-adjusted).
i. MBA Applications Survey: activity by dollars, total market refi share percent for United States (not seasonally-adjusted).
j. Home Mortgage Disclosure Act for all single-family mortgages (not seasonally-adjusted); annual share is dollar-weighted average of quarterly shares (2014 estimated).
k. Federal Reserve Board; growth rate of residential mortgage debt, the sum of single-family and multifamily mortgages

Prepared by Office of the Chief Economist and reflects views as of 5/12/2015 (PMF); Send comments and questions to chief_economist@freddiemac.com.

Opinions, estimates, forecasts and other views contained in this document are those of Freddie Mac's Office of the Chief Economist, do not necessarily represent the views of Freddie Mac or its management, should not be construed as indicating Freddie Mac's business prospects or expected results, and are subject to change without notice. Although the Office of the Chief Economist attempts to provide reliable, useful information, it does not guarantee that the information is accurate, current or suitable for any particular purpose. The information is therefore provided on an "as is" basis, with no warranties of any kind whatsoever.

Information from this document may be used with proper attribution. Alteration of this document is strictly prohibited. © 2015 by Freddie Mac.