OBSERVATION
TD Economics

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HIGHER MORTGAGE RATES UNLIKELY TO DERAIL HOUSING RECOVERY

Highlights

- The recent rapid rise in mortgage rates has raised questions as to whether the wheels will fall off a promising housing recovery. This is unlikely to occur given the persistence of high affordability across the majority of states over the next two years.
- In the absence of other changes to our economic outlook, mortgage rates would have to cross the 7% threshold just to erode affordability back to its long-term average. But, nothing happens in isolation. Mortgage rates of that magnitude would correspond with stronger economic and income growth.
- The starting point matters. Both mortgage rates and home prices are rising from historic lows. This means affordability has plenty of headroom to absorb further increases in both.
- Some caution is still warranted. Sound housing fundamentals could be stymied by another rapid upswing in mortgage rates, if it rattled market confidence.

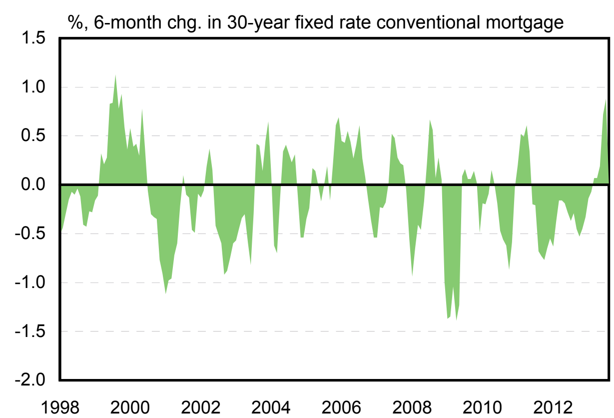
Any buyer in the market knows that purchasing a home has become more expensive recently. Depending on the measure, home prices are rising at a 12-15% annual pace and, in the first six months of the year, the average monthly mortgage rate has jumped by 72 basis points. This double whammy to housing affordability means that it now takes two percentage points more of household income to pay the carrying cost of a mortgage. For the median family, that equates to an extra $1089 in pre-tax income per year.[1]

With the economy strengthening and the Federal Reserve inching closer to withdrawing from hyper stimulative monetary settings, mortgage rates will rise further, tracking the movement in Treasury yields. A common question among our clients is whether the resulting deterioration in housing affordability will kick the legs out from the recovery.

We have written in depth on the strong fundamentals that will support housing demand, construction activity, and price growth over the next two to three years. In this report, we look at the final piece of the puzzle – affordability. This captures the ability of a household to carry the costs of a mortgage. Ultimately, the ability-to-pay is the most important feature to any sustainable housing recovery.

Our analysis indicates that there is quite a bit of headroom to absorb higher mortgage rates. Assuming home price and income growth behave according to our forecast, over the next

CHART 1. CHANGE IN MORTGAGE RATES



Source: Federal Reserve, Haver Analytics.

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two years, 30-year mortgage rates would have to cross the 7% threshold just to erode affordability back to historical levels. That's a near-three percentage point increase in mortgage rates from today. The odds of this happening over the next two years is extremely low, and would likely have to correspond with a significantly stronger economy than forecasters are predicting. Furthermore, nothing happens in isolation. Should a much stronger economy materialize, this would also trickle down to stronger income growth, which would partially offset the influence of higher rates.

Looking at the national average, housing affordability has a long runway before reaching historical norms under a rising interest rate environment. But, affordability norms vary by region. States do not have the same starting or ending points. For instance, the long-term average for California is a dedication of roughly one-third of household income to principal and interest costs. This compares to 22% for Florida. Applying our base-case state forecasts reveals that a small group of less than a dozen states will have reached or surpassed our historical affordability measure by 2015.

It takes a lot to erode affordability from high levels

Definitions and thresholds of affordability vary. A rule of thumb is that a mortgage is "affordable" if the sum of the principal, interest, tax and insurance (PITI) does not exceed 30% of household pre-tax income. This implicit threshold came about through various regulatory changes over the years, including guidelines in setting affordable rent within public housing and lender mortgage underwriting standards.[2] In this report, we consider the mortgage carrying costs associated only with principal and interest costs, thus the "safe" threshold is lower. Using this definition and excluding the period that corresponds with the boom/bust housing crisis, the U.S. historical average (1990-2003) for affordability is roughly 23% of median household income. Even with the recent escalation in mortgage rates and home prices, we estimate affordability sat well below that threshold at 16.3% in June.

The question going forward is in knowing how long this favorable affordability climate will persist. As financial market expectations adjust to less monetary accommodation from the Federal Reserve, Treasury yields will continue to rise and so too will mortgage rates. We predict that by the end of 2014, the 30-year Treasury yield will be at 3.75%, edging up further to 4.05% by the end of 2015. Meanwhile, home prices are already on a strong upward trek to an annual gain of roughly 10% this year, which should cool to the 3.5-4% range in the following two years. No doubt affordability will erode, but this double impact still leaves the aggregate U.S. affordability measure a full three percentage points below its historical norm by the end of 2015.

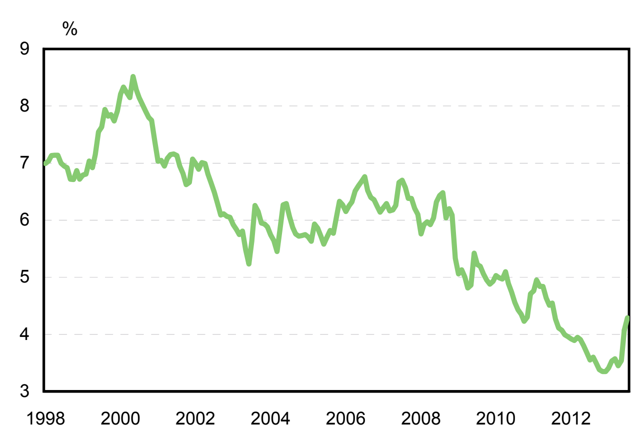
These three percentage points offer a healthy buffer on the forecast, should yields or home prices move up in a stronger fashion. To test this, we pushed the boundaries of our forecast. It would take home price gains to be sustained at 6% each year in 2014 and 2015, as well as a large 100-basis-point jump in 30-year yields over-and-above our current forecast just to erode affordability to its long-term range by the very end of 2015. This is certainly within the realm of possibility. However, this outcome would correspond to a stronger pace of economic growth, which, in turn, would feed into stronger income growth. The latter was not factored into the sensitivity analysis. If it were, affordability would erode at a slower pace. For instance, if median household income growth accelerates at an annual rate that is merely 0.5% faster than expected, then the erosion in affordability back to the long term average doesn't occur until 2016.

A minority of states make the watch list by 2015

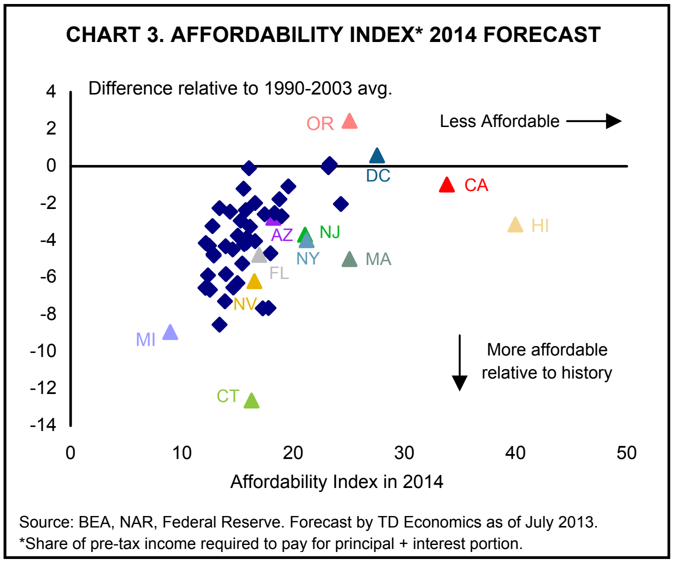
As we all know, housing markets are regional in nature, and so every state has a different historical threshold for affordability. Applying our state base-case forecast, Table 1 and the charts on the following pages illustrate where affordability comes to rest within each state at the end of 2014 and 2015 relative to their unique long-term averages.

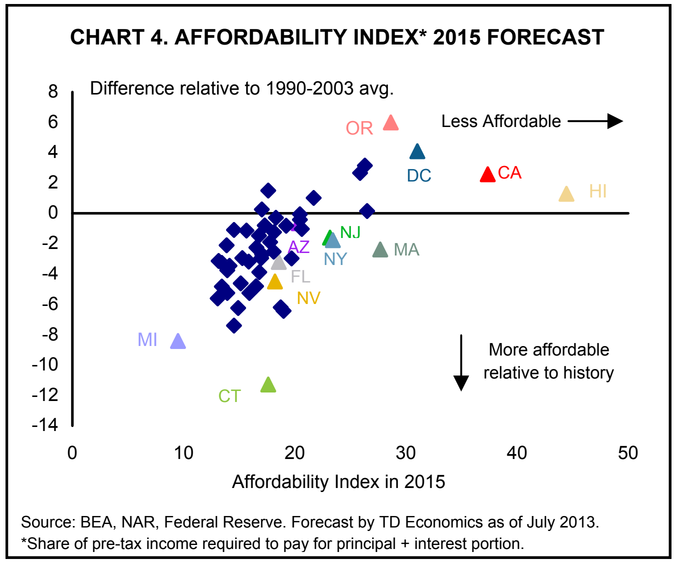
If we apply a static threshold of 25% of household income in relation to industry standards[3], only 5 states will

CHART 2. 30-YEAR CONVENTIONAL MORTGAGE RATE



Source: Federal Reserve, Haver Analytics.





have hit that limit in 2014, and another 3 join them in 2015. In other words, the vast majority of states remain below that threshold. If we tighten up the definition to reflect the aggregate U.S. average of 22.7%, then 2 additional states get caught up in the net by 2015.

In contrast, if we apply to each state its own historical income affordability average, then New Jersey and New York drop off the 2015 watch-list, with North Dakota and Oklahoma taking their place. (A table of all states is provided on page 4) Suffice it to say, a handful of states return to their long-term affordability thresholds in 2015, but the majority still have a lot of runway ahead of them. Some of the more notable states among this group are ones that were hardest hit by the recession, including Florida and Nevada. In the case of Nevada, we did not use a light touch on the home price forecast. It runs at nearly double the national pace.

Conclusion

The recent and future rise in mortgage rates is unlikely to cripple affordability. The recovery in the housing market should remain intact, particularly when coupled with other fundamentals working in its favor, such as leaner inventories and pent-up demand.

The erosion in affordability among some states occurs faster than others, but they are in the minority with a time horizon that is two years out. What's important to bear in mind is that the starting point matters. Mortgage rates are still historically low, as are home prices. Hence, affordability is starting from very high levels. This leaves a lot of wiggle room to absorb movements in either of the former indicators before affordability deteriorates to a point that becomes detrimental to demand.

However, we must offer one word of caution. While the fundamentals underpinning the housing market look sound, the speed of adjustment in mortgage rates could shake market confidence. In the first half of the year, the monthly average for the 30-year conventional mortgage rate rose by 72 basis points and continued to track higher in July. This is the fastest 6-month jump in over a decade. The adjustment occurred abruptly because market participants had to recalibrate expectations to a new Fed signal that years of stimulus injections were nearing an end. Once this information is transmitted to markets, expectations typically go through a one-time adjustment and, thus, we do not expect another dramatic rise in yields over a short period.

Should it occur again, however, we cannot rule out the possibility that household confidence will be rattled, especially if it becomes disruptive to the pace of the broader economic recovery. While it is difficult to account for the sensitivity of confidence, the one consolation to this outcome harkens back to our earlier notion that the starting point matters. There is a large buffer to absorb a faster pace of adjustment based on the still-low level of mortgage rates and home prices. Both speed of adjustment and level matters, but the impact of the latter should win out by offering sufficient headroom to homebuyers.

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TABLE 1. STATE AFFORDABILITY INDEX**							
	Historical			Forecast			
	1990-2003 avg.	Current	Difference*	Year-end 2014	Difference*	Year-end 2015	Difference*
United States	**22.7**	**15.1**	**-7.5**	**18.0**	**-4.7**	**19.7**	**-3.0**
Alabama	21.1	12.9	-8.2	13.9	-7.3	14.9	-6.2
Alaska	18.1	13.8	-4.3	15.7	-2.4	17.3	-0.8
Arizona	21.0	14.9	-6.1	18.2	-2.8	20.4	-0.7
Arkansas	18.2	12.0	-6.3	13.9	-4.3	15.3	-3.0
California	34.8	27.1	-7.7	33.8	-1.0	37.4	2.6
Colorado	23.2	18.5	-4.7	23.3	0.1	26.3	3.2
Connecticut	28.9	14.1	-14.8	16.3	-12.6	17.6	-11.3
Delaware	20.7	14.0	-6.7	15.4	-5.2	16.8	-3.9
District Of Columbia	27.0	23.3	-3.6	27.5	0.6	31.0	4.1
Florida	21.7	15.3	-6.5	17.0	-4.8	18.6	-3.2
Georgia	19.2	10.2	-8.9	12.5	-6.7	13.9	-5.3
Hawaii	43.1	33.9	-9.3	40.0	-3.2	44.4	1.3
Idaho	19.7	13.6	-6.0	15.8	-3.9	17.8	-1.9
Illinois	21.9	11.5	-10.5	13.4	-8.6	14.5	-7.4
Indiana	16.7	10.7	-6.0	12.4	-4.3	13.4	-3.3
Iowa	15.6	11.8	-3.8	13.4	-2.3	14.5	-1.1
Kansas	18.3	10.8	-7.4	12.4	-5.9	13.4	-4.8
Kentucky	19.8	12.4	-7.4	14.0	-5.8	15.1	-4.6
Louisiana	18.6	13.7	-4.9	16.6	-2.0	18.3	-0.3
Maine	21.7	16.4	-5.3	19.0	-2.7	20.6	-1.0
Maryland	20.5	16.7	-3.8	18.8	-1.8	20.5	-0.1
Massachusetts	30.1	21.0	-9.1	25.1	-5.0	27.7	-2.4
Michigan	17.9	8.3	-9.6	9.0	-8.9	9.5	-8.4
Minnesota	17.6	11.7	-5.9	12.8	-4.8	14.1	-3.5
Mississippi	19.8	13.4	-6.4	15.6	-4.2	17.1	-2.7
Missouri	17.7	11.4	-6.2	12.9	-4.8	13.9	-3.8
Montana	20.9	15.5	-5.4	18.3	-2.5	20.5	-0.4
Nebraska	16.3	11.2	-5.1	12.2	-4.1	13.2	-3.1
Nevada	22.7	13.7	-9.1	16.5	-6.2	18.2	-4.5
New Hampshire	21.2	12.9	-8.2	14.6	-6.6	15.9	-5.2
New Jersey	24.8	17.6	-7.2	21.1	-3.7	23.2	-1.6
New Mexico	24.9	15.2	-9.7	17.3	-7.7	18.7	-6.2
New York	25.2	17.0	-8.2	21.2	-4.0	23.4	-1.8
North Carolina	20.0	14.3	-5.7	17.4	-2.6	19.2	-0.8
North Dakota	16.1	13.5	-2.6	16.0	-0.1	17.6	1.5
Ohio	18.7	10.8	-7.8	12.1	-6.6	13.1	-5.6
Oklahoma	16.8	13.2	-3.6	15.6	-1.2	17.0	0.3
Oregon	22.6	19.8	-2.9	25.1	2.5	28.6	6.0
Pennsylvania	19.1	12.8	-6.3	14.6	-4.5	15.9	-3.2
Rhode Island	25.4	17.4	-8.1	17.8	-7.6	19.0	-6.4
South Carolina	20.6	15.4	-5.3	16.6	-4.0	18.1	-2.5
South Dakota	16.0	11.6	-4.4	12.8	-3.2	13.9	-2.1
Tennessee	21.3	12.8	-8.5	15.0	-6.3	16.5	-4.8
Texas	18.2	12.7	-5.5	15.3	-2.9	16.8	-1.5
Utah	19.4	13.7	-5.7	16.1	-3.3	18.1	-1.2
Vermont	26.3	22.1	-4.3	24.3	-2.0	26.5	0.2
Virginia	20.7	17.1	-3.6	19.6	-1.1	21.7	1.0
Washington	23.2	18.4	-4.8	23.2	-0.1	25.9	2.7
West Virginia	19.9	13.9	-6.0	15.8	-4.1	17.0	-2.9
Wisconsin	16.8	12.2	-4.6	14.3	-2.5	15.7	-1.1
Wyoming	18.8	12.6	-6.2	15.0	-3.8	16.5	-2.2

Source: BEA, NAR, Federal Reserve. Forecast by TD Economics as of July 2013. **Share of pre-tax income required to pay for principal + interest cost of mortgage. *Difference calculated relative to 1990-2003 average.

End Notes

1. Assumes 30-year mortgage rate and 20% down payment on median home price
2. Schwartz, Mary and Ellen Wilson, U.S. Census Bureau, "Who Can Afford to Live in a Home? A look at data from the 2006 American Community Survey."
3. 25% is derived by netting off the median share of household income that is dedicated to real estate and insurance costs from the implicit PITI threshold of 30%.