February 10, 2014

Good News/Bad News/Good News: Affordability and Rising House Prices

First the good news: overall U.S. house sales in 2013 were the highest since 2006, according to the online Financial Times and, at least for current homeowners, house prices had double-digit increases during the year. The bad news, at least for potential buyers, is that house prices had double-digit increases. Combined with higher mortgage interest rates and relatively stagnant income growth, there have been a lot of concerns lately about housing affordability as the economy continues to recover.

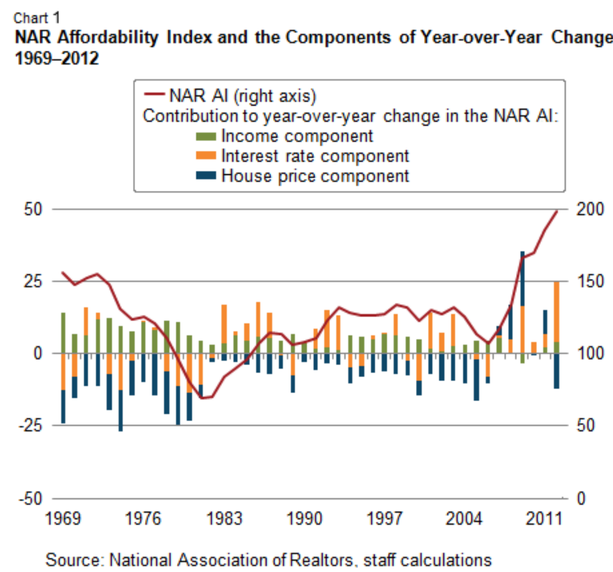
In 2013, home prices increased by 14 percent, according to the S&P/Case-Shiller 20-City Composite Home Price Index. In June, talk that the Fed may begin scaling back its bond purchases led to mortgage rates rising quickly from 3.5 percent to 4.4 percent. As a result, buyers faced higher monthly mortgage payments. How concerned should we be that lower levels of housing affordability will make housing less attainable as the economy improves? Is there a possibility that rising prices and interest rates will limit the pace of the housing recovery? One way to put attainability in perspective is to examine an affordability index such as the one that the National Association of Realtors (NAR) produces.

Though not without its flaws, the NAR Affordability Index (AI) is widely cited and can give a sense of the magnitude of the change in housing affordability. The NAR index is designed to estimate the extent to which the ability of the median household to purchase the median home has changed over time. In addition, it also lets us determine the extent to which changes in mortgage rates, home prices, and income contribute to changes in affordability.

The NAR AI incorporates median incomes, mortgage rates, and median home prices. It is computed as the ratio of median family income to the income required to qualify for a mortgage on the median-priced single-family home, assuming a 20 percent down payment and a monthly payment-to-income ratio of 25 percent.

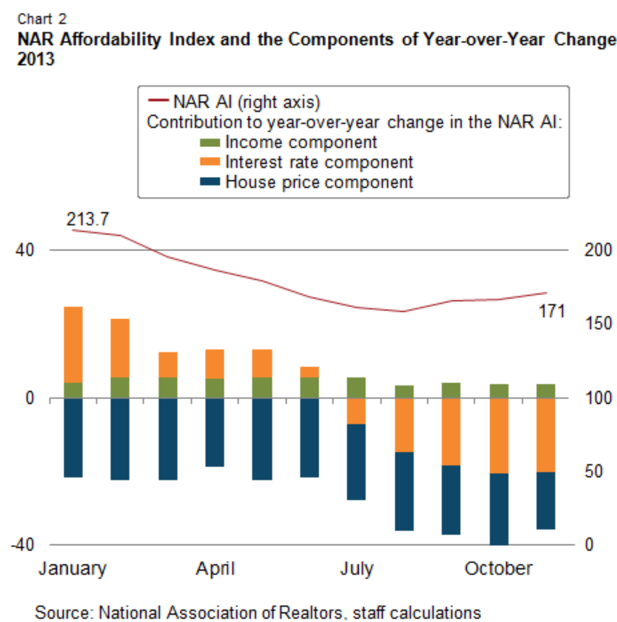
The index equals 100 when the median-income family just qualifies for a mortgage on the median-priced home. A value above 100 implies that the median-income household has more than enough income to qualify for a mortgage on the median-priced home, and a value below 100 means that the median-income household does not have sufficient income to qualify. During most of 2012, the NAR AI was at or near 200. At this level, the median-income family can afford two mortgage payments with 25 percent of its income. Or, to put it another way, that family had to spend only 12.5 percent of its income on a mortgage payment on the median-priced house. (Note that there's a powerful regional component to housing affordability as well. Even taking regional incomes into account, homes are considerably more expensive in the West and Northeast than in the South and Midwest.)

Armed with the formula for the AI, we can decompose it into its three parts—home prices, mortgage rates, and incomes—to see which factor is creating the strongest declines in affordability. Looking at the decomposition through time, house prices are typically a drag to the AI, and nominal income growth supports the AI (see chart 1). Historically, interest rates play the role of affordability swing factor.



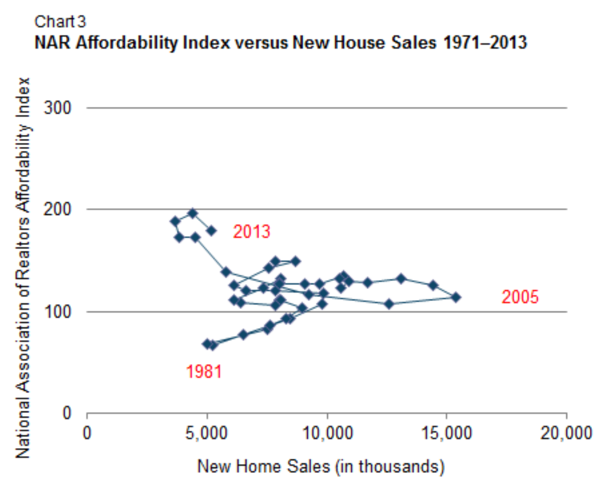
Source: National Association of Realtors, staff calculations

The record levels of affordability since the onset of the Great Recession were due to the combination of falling house prices and declining interest rates. The recent decline in the NAR AI is primarily due to the rebound in housing prices, which in 2012 returned to the role of a drag to affordability. After six years of contributing to affordability, mortgage interest rates became a drag in 2013 (see chart 2). Sluggish income growth has had little effect on the index.



Source: National Association of Realtors, staff calculations

Looking ahead, many forecasters are predicting that house price growth will be in the positive single digits, slower than the past couple of years. Should we be concerned that continued home price and mortgage rate increases may decrease affordability and thus lower construction and house sales? For several reasons, the answer is: probably not. First, sales and affordability, as measured by the AI, have had little correlation historically (see chart 3). A lack of correlation is not surprising since the decision to buy is a function of access to credit in addition to what is measured by the affordability index, which has no measure of access to credit. That is, attainability is a function of both affordability and access to credit.



Source: National Association of Realtors, Census Bureau

Second, the increases in house prices and mortgage rates may signal a growing economy and, subsequently, recovering credit markets. Given this context, as the NAR affordability declines, what we may see is an expansion of credit and increasing access to credit. Finally, as banks continue their search for profitable opportunities, we may see their eagerness to lend increase (that is, the availability of credit could increase).

We will cover access to and availability of credit in future posts, but for now I think we can safely say that affordability as measured by indices such as NAR's should not be a primary concern.

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February 10, 2014 in Uncategorized | Permalink