TD Bank Financial Group

TD Economics

Observation

July 30, 2009

ANATOMY OF A U.S. HOUSING REBOUND

It's been a long time coming, but it finally looks like residential home construction will add to U.S. real GDP growth in the second half of 2009. The question is no longer if this will happen – knock on wood – but rather how much of a boost is in store. A return to normality – 4 to 5 months worth of inventories of new homes and a 4 to 5 percent average annual increase in home prices – will still be years in the making. Nevertheless, single-family housing starts grew by a robust 18% in the second quarter, and given the positive impulses now coursing through the veins of the economy, construction looks set to continue to improve in the second half of the year. This increases the likelihood that growth in residential investment over the next 6-12 months could reach rates not seen since the 1980s recovery – providing a material boost to the economy.

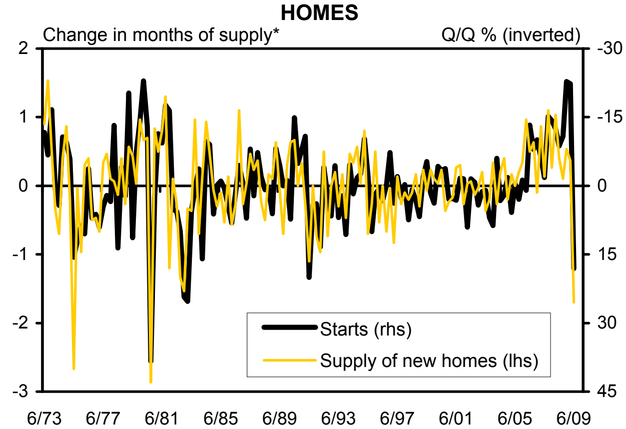
HIGHLIGHTS

- **Inventories of unsold new homes fell by 1.7 months in Q2 and will fall further in Q3.**
- **Lower inventories traditionally boost starts in the current and following quarter.**
- **An increase in housing starts lifts real GDP through the residential investment subcomponent in the current quarter and subsequent two quarters.**
- **As a result, the reduction in inventories in Q2 and expected continuation in Q3 will send a positive impulse coursing through the veins of the U.S. economy that will still be felt through the start of 2010.**
- **This rebound in home construction could add 0.6 percentage points to U.S. real GDP in the second half of 2009.**

Start me up

To understand how the economy will benefit, one needs an appreciation of the relationships between housing, investment and the economy. There is a fairly stable relationship between the change in inventories of unsold new homes and the growth in housing starts (shown in the chart on the right). The aggregate demand for new homes consists of the inventory of unsold homes and new starts. As inventories rise, less starts are needed; and, conversely, when inventories fall, more starts must fill the gap. The aggregate demand for new homes does change over time, and it is influenced by income and home prices, but for the most part it is demographic factors that change only very slowly over time that change the total requirement. As a result, over time spans as short as a quarter or a year, shifts in inventories are the dominant factor impacting home construction. The measure of inventories used here is the months of supply of homes for sale at the current pace of sales. This includes both supply factors – the inventory of

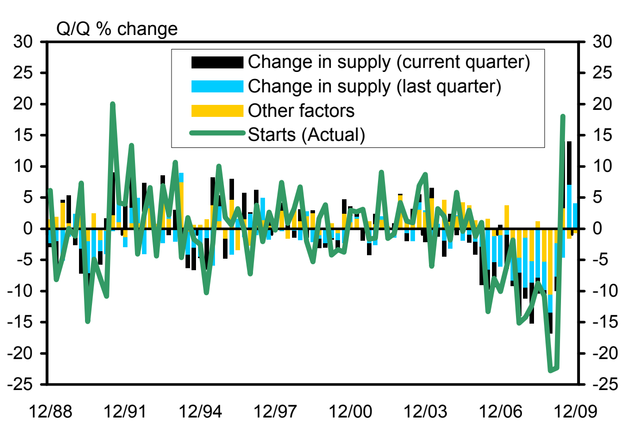
HOUSING STARTS AND THE SUPPLY OF NEW HOMES



*At the current pace of sales; Source: Census and Haver Analytics homes – as well as demand factors – the number of homes sold in that quarter. As such, it can also reflect builders basing their construction decisions on expectations for the future. The good news is that after inventories rose in 16 of the last 17 quarters, they finally fell by 1.7 months worth of supply in the second quarter of 2009. And, if the level of supply seen in June can simply be maintained in the third quarter, it would represent a further improvement of 1.1 months of supply in that quarter.

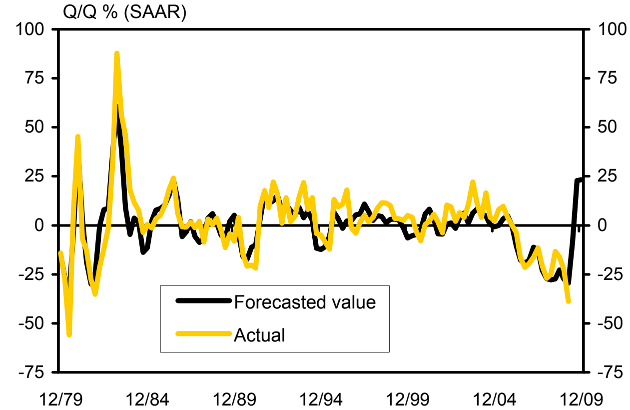
The strong relationship between a reduction in inventories and housing starts provides a powerful and positive impulse into the economy. In fact, the change in the supply of homes in the previous quarter is almost as important in driving housing starts as the change in supply in the current quarter. The chart below provides some accounting for the scale of the impact. The improvement in inventories added 10.7pp (percentage points) to housing starts in the second quarter and is forecasted to add 7pp to the growth in starts in the third quarter. If supply stays unchanged with the level in June (a Q/Q improvement of 1.1 months), this would add a further 7pp to growth in starts, while unchanged home prices and interest rates would detract 1.5pp. This would imply that even with no change from July to September, starts would likely expand by around 12.5% in Q3 over Q2. The improvement in the level of supply in the third quarter would set up the fourth quarter for a further increase of 3.5% before accounting for the changes in interest rates, home prices, credit conditions, and housing supply in the rest of the year. So, for the first time in several years, the burden of proof will lie in the data to take strength out of the rebound, rather than contribute to the malaise.

DETERMINANTS OF HOUSING STARTS*



*Regression impact of factors on housing starts. "Other factors" include interest rates, home prices, and credit conditions; Source: Census, Haver, and TD Economics

U.S. RESIDENTIAL INVESTMENT



Source: Census, Haver Analytics, and TD Economics

Starting the engine of residential investment

So what does this mean for real GDP? Not all housing starts are recorded in the current quarter as residential investment – the housing subcomponent of real GDP. In general, about 40% show up in the current quarter, another 50% in the next quarter, and a final 10% two quarters out. This means that changes in starts can have some persistence in driving changes in residential investment and real GDP. Given the suggestions above that the third quarter is on track to comfortably see a 12.5% growth in starts, and the fourth quarter already has a positive contribution of 3.5pp, this would imply growth in residential investment of 23% (SAAR) in both the third and fourth quarters (in the second chart on this page). With residential investment accounting for about 3 percent of real GDP, this means it could contribute 0.6pp to economic growth in both quarters. We haven't seen this since 2004, when housing's share of the economy was twice as big.

And just how robust is the likelihood that residential investment will continue to expand in the fourth quarter? If starts were instead flat, this would imply 20% growth (SAAR) in residential investment. In fact, with two-thirds of the determinants of residential investment in any quarter coming from known results from past quarters, it would take a 21% Q/Q contraction in starts in the fourth quarter – on par with the worst we have seen in any quarter of the recession so far – just to get no growth in residential investment in the last quarter of 2009. Alternatively, in order to set up residential investment for no growth in Q3, new home supply would have to increase to 12.5

months – higher than we have seen yet. And in order to take the positive impulse out of the fourth quarter, supply in the third quarter would need to increase to 10.5 months – more possible but still not likely. And lastly, in order for the months of supply of new homes to sustain its June level through the third quarter, either the pace of sales must return to its 2008Q4 level or the absolute level of inventories of homes must fall by 10%. The first might be a bit optimistic, but the latter would just entail a continuation of the trend seen over the last three quarters. Alternatively, we could have a little from column A and a little from column B. In other words, the signs are good that we will have at least a near-term rebound in home construction, with the potential for the strongest quarterly growth rates since the 1980s

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