

Research

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USA: housing adjustment has further to go

- Residential construction has dropped from 6.3% of nominal GDP at the peak of the construction cycle to 3.3% in Q3 08, which is close to the levels that have marked the bottom in previous housing downturns. At the current depressed level of housing starts, demand for new homes is outpacing supply. Consequently, the inventory of new homes for sale is declining rapidly, which we think is sowing the seeds for a gradual recovery in residential construction from Q2 09.
- Home affordability has improved as house prices have declined and, compared to fundamentals, we are approaching fair levels. However, evidence from previous downturns shows that house prices usually undershoot fundamentals for a period following a boom. In addition, we expect fundamentals to turn more unfavourable in 2009, as unemployment increases and income growth slows.
- An important factor to keep in mind is the impact from the escalation in the credit crisis. The usual measures of house price fundamentals do not capture the current credit crunch, which is likely to prolong the period of adjustment. Consequently, we do not expect house prices to stabilise before Q1 10.
- We expect the net effect of housing on GDP growth to remain negative throughout 2009, although the drag is likely to become gradually smaller. The bulk of the impact on GDP growth from lower house prices is yet to be seen, while the contribution from construction is set to turn positive by Q2 09

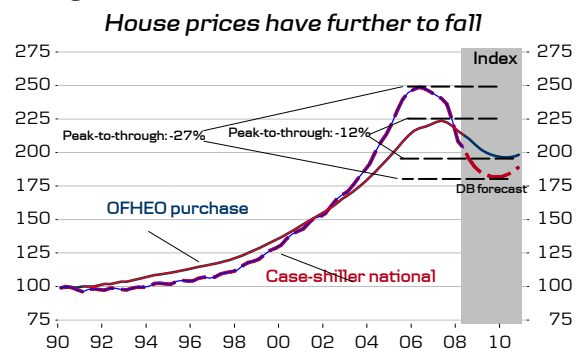
Approaching fundamental values

How far on in the correction are we?

The correction in real US house prices has been running since Q2 06, ie, for nine quarters so far. Nominal house prices are down 5% from their peak in Q2 07, measured by the OFHEO purchase only index. At the same time, residential construction has dropped from 6.3% of nominal GDP at the peak of the construction cycle to 3.3% currently.

To understand what stage we are at in the adjustment process for house prices and residential construction we have looked at some of the fundamentals that usually drive house prices and housing

demand. Our main conclusion is that, although the decline in prices has led to improved affordability, the intensification of the credit crisis is likely to prolong the downturn.



Source: EcoWin, Danske Bank calculations

Consequently, we have lowered our house price forecast and now expect a 12% decline in the OFHEO purchase only national index from peak to trough compared to -10% previously. This corresponds to roughly a 27% decline in the S&P/Case-Shiller national index. We expect house prices to reach a bottom in Q1 10 for the OFHEO index and slightly earlier for the S&P/Case-Shiller index.

Turning to residential construction, we expect activity to turn around in Q2 09 as the adjustment in this area has already come a long way.

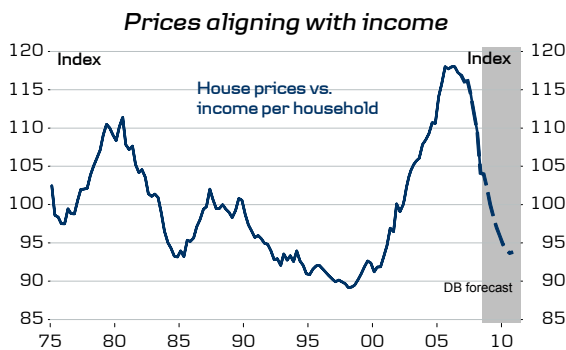
What history tell us

Housing cycles generally are of relatively long duration. Looking at the experience of the Scandinavian housing markets in the late 1980s and early 1990s, the decline in real house prices lasted 22 quarters on average from peak to trough. The downturns then, like the current one, were combined with a crisis in the banking sector. The most recent example from the US is the house price slump in the early 1990s, which lasted 21 quarters from the peak in Q4 89 to the trough in Q1 95.

We therefore believe that the current adjustment in the housing market has longer to run.

Prices approaching fair value

During the recent boom house prices grossly overshot household income growth. Prices are now moving more in line with income but we are likely to see a period in which the price/income ratio undershoots the long-run average, as has been the case in previous housing downturns.

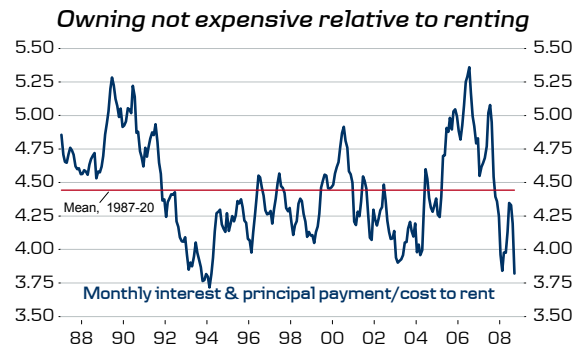


Source: EcoWin, Danske Bank calculations

Another widely used measure for assessing the fair value of owner-occupied homes is to compare house prices to rents, according to the notion that people will compare the cost of renting to owning when deciding whether to purchase a home. Comparing the current price of a home to the rent of

primary residence component in the CPI index suggests that home prices need to decline much further. However, this measure does not take into account the fact that mortgage rates have fallen significantly over the past few decades.

One way to capture this development is to compare the monthly payments of an average prime home buyer to the cost of renting. Currently this measure does not favour renting over owning for an average home buyer. However, there are some caveats to this result. First, the payment/rent ratio does not capture the credit constraints that a potential home buyer is currently facing. Second, the monthly payment is based on a 30-year fixed mortgage rate and a 20% down-payment, which is not applicable to all US home-owners. In addition, the payment/rent ratio has a tendency to undershoot the average for some time following a housing boom.



Source: EcoWin, Danske Bank calculations

The gap has not yet been closed

It is extremely difficult to construct a model to forecast house price developments accurately and we will not attempt to do so here. Instead we will try to assess by how much home prices overshot fundamentals during the boom period using a model that includes only mortgage rates and real disposable income growth as explanatory variables (see note below for details).



Source: EcoWin, Danske Bank calculations

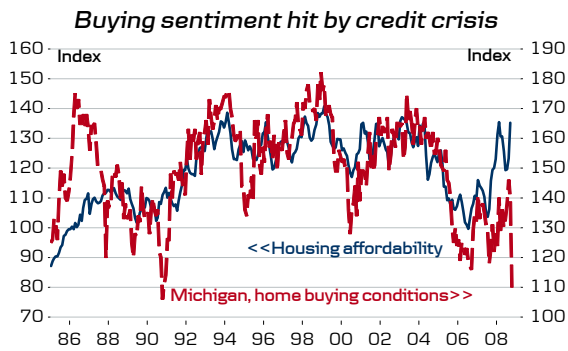
Note: Real per capita disposable income growth has a positive coefficient and has therefore the lagged value of the variable, as could be expected. The mortgage lending rate is the FHFB average contract interest rate. It has a negative coefficient as a higher cost of borrowing tends to depress prices.

Our model suggests that real house price growth did overshoot fundamentals during the boom period from Q4 00 to Q3 06. Although real house price growth has fallen below that suggested by our model recently, the 'price gap', measured by the accumulated residuals, still stands at 8 percentage points. We are therefore likely to see prices under-shoot fundamentals for some time yet.

Credit crunch adds to price pressure

Credit crunch could prolong downturn

Housing affordability has improved on the back of declining house prices but it has not been enough to bring buyers back to the market.

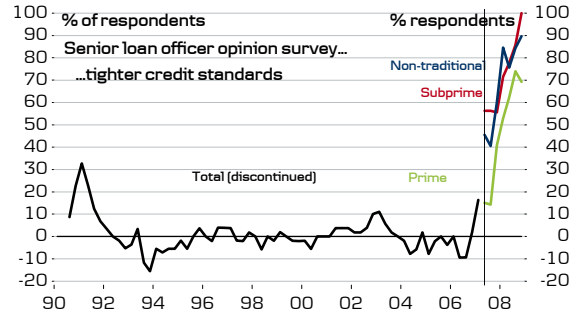


Source: EcoWin, National Association of Realtors

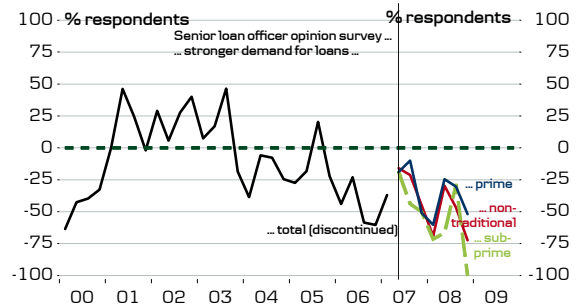
Home buying sentiment collapsed in October, which suggests that tighter credit conditions, households' uncertainty about the future trajectory of house prices and the rapid deterioration in the macro-economic backdrop are keeping buyers on the sidelines.

The latest Senior Loan Officer Survey confirmed that home buyers are facing increasingly tight credit conditions. Banks are continuing to tighten lending standards on all types of mortgage loans while demand has plunged. Although we expect money and credit market conditions to improve gradually over the coming quarters, the deleveraging process in the banking sector is likely to continue. It is highly unlikely that the extremely easy lending standards for home owners seen in the boom period will return any time soon.

Mortgage availability lower...



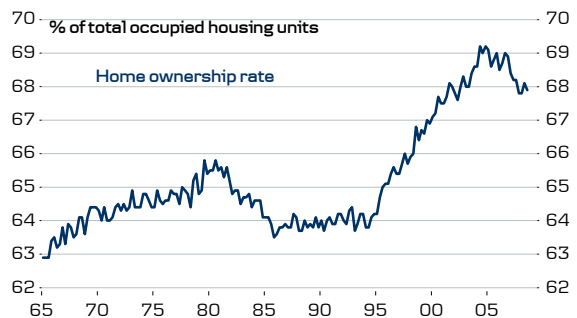
...and demand has plunged



Source: Federal Reserve, Danske Bank calculations

Loose lending standards and rising house prices drove much of the rapid rise in the home ownership rate during the boom period. This has now started to reverse. With more homeowners moving back into the rental market the demand side is shrinking, which will prolong the time it takes to clear the inventory of unsold homes. The slowdown in building activity has brought the inventory of new homes for sale lower but we still need to see convincing signs of a downward trend in the inventory of existing homes. As long as the market is flooded with homes for sale it will be difficult for prices to stabilise.

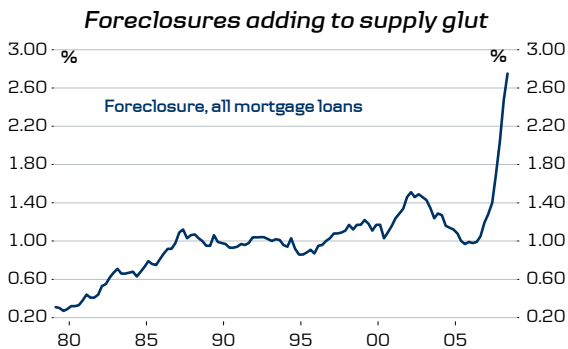
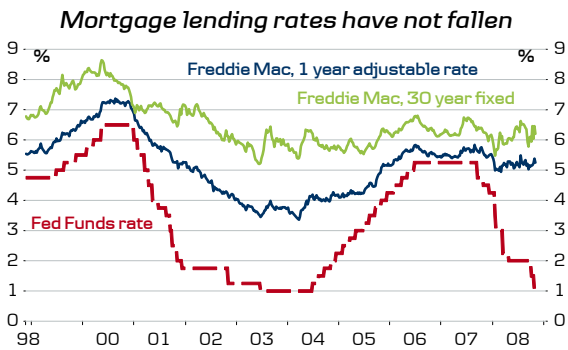
'I want one too'





Source: EcoWin, Danske Bank calculations

Despite aggressive easing of monetary policy, the government taking over conservatorship of Fannie Mae and Freddie Mac and several policies to curb foreclosures, mortgage lending rates have not come down and foreclosures are rising.



Source: EcoWin, MBA, Danske Bank calculations

The latest initiative currently being worked out between the FDIC and the Treasury implies that the government would guarantee the mortgages of as many as three million homeowners struggling to avoid foreclosure. The programme being discussed encourages lenders to reduce borrowers' monthly payments based on their ability to pay. The government would then guarantee to repay the lender for a portion of its loss if the borrower defaulted on the reconfigured loan. The plan is estimated to use USD40-50bn of the government's USD700bn fund,

but the plan still needs to be approved by the White House.

The initiative is aimed at bringing down foreclosure rates, and while it would not prevent house prices falling further, it but could avoid a huge undershoot in prices relative to fundamentals.

Only half-way through the adjustment

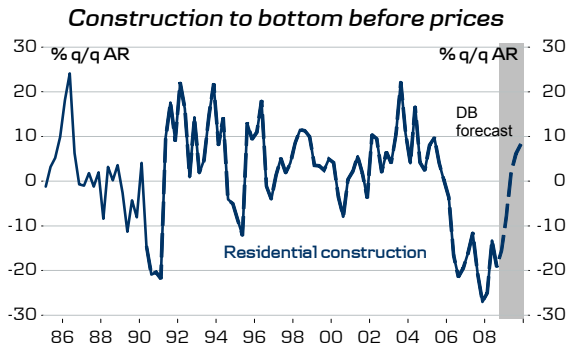
Taking both the impact from the escalation in the credit crisis and fundamentals into consideration, we have adjusted our house price forecast down. We now expect prices to decline by 12% from peak to trough, down from our previous estimate of -10% as measured by the OFHEO purchase only national index, which roughly corresponds to a 27% decline in the S&P/Case-Shiller national index. We are therefore less than half-way through the adjustment in the OFHEO index but more than half way in the S&P/Case-Shiller, which has already declined 18% from the peak. We do not expect a bottom in the OFHEO index before Q1 10, while we expect the S&P/Case-Shiller index to bottom in Q4 09 as the correction to date has been faster here.

We would like to stress that uncertainty about future developments in the housing market remains high and there are risks on both sides of our forecast. If new political initiatives succeed in effectively bringing down mortgage interest rates, or in improve affordability, this could ease the pressure on house prices. Downside risks include a lack of improvement in financial market conditions over the coming quarters, another round of intensification in the financial crisis or a deeper economic recession than we currently expect. Such developments would reduce homeowner affordability and add to the credit constraints that households currently face.

Signs of stabilising activity

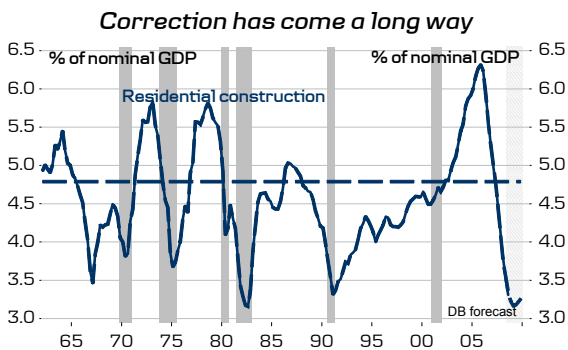
Much of the adjustment has occurred

Turning to building activity, we expect residential construction to turn around before prices as the adjustment has come a long way already.



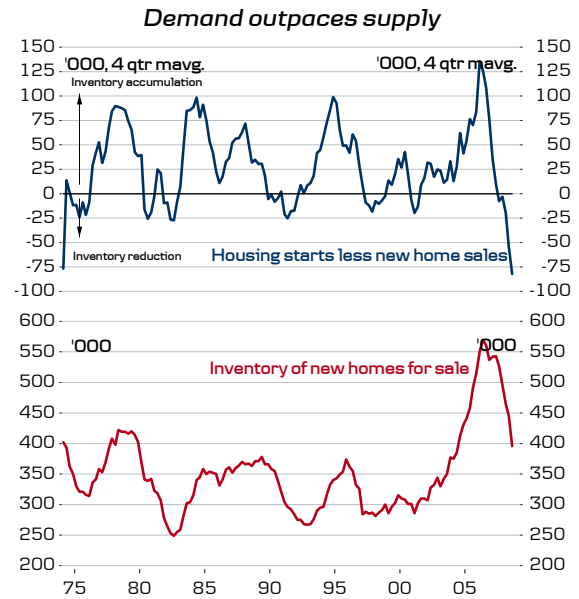
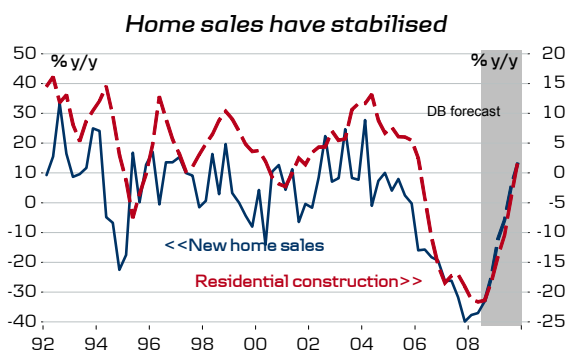
Source: EcoWin, Danske Bank calculations

Real residential construction has been on a downward trend since Q1 06 with an average growth rate of -20% q/q AR over the past ten quarters. During that period, residential construction has dropped from 6.3% of nominal GDP at the peak of the construction cycle to 3.3% in Q3 08. We are therefore close to the levels that have marked the bottom in previous housing busts.



Source: BEA, Danske Bank calculations

Some tentative signs of stabilisation in housing activity have emerged in recent months. Total home sales have been fluctuating within a stable range since early this year and housing starts have fallen significantly below new home sales, bringing the inventory of unsold new homes down at a rapid pace. If the inventory reduction continues at this rate we will reach the long-run average by early 2009.



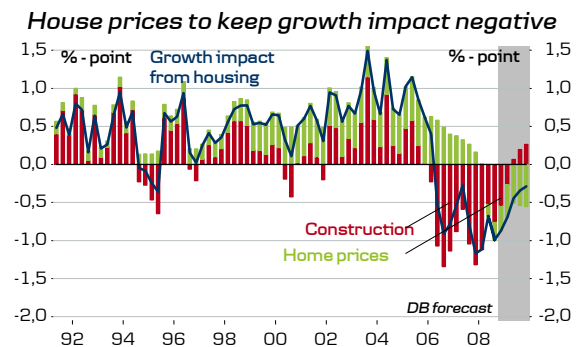
Source: EcoWin, Danske Bank calculations

Given that much of the adjustment in activity has occurred, we expect to see a bottom in residential construction in Q1 09. We do not expect a return to anything close to the pace of new home sales that occurred in the boom years but rather foresee a levelling off near to the current low levels throughout 2009.

Growth impact to remain negative on balance

Consumption constraints to take the lead

Residential construction has been a significant drag on GDP growth for more than two years and even a stabilisation would boost GDP growth. We expect the contribution to GDP growth from residential construction to turn positive in Q2 09 although this revitalization is likely to be gradual as financing conditions are likely to stay restrictive and home prices remain on a downward trend throughout 2009.



Source: EcoWin, Danske Bank calculations

Although house prices have been declining for a while now, the bulk of the impact on GDP growth is yet to be seen. The largest effect on GDP growth from changes in house prices is through the wealth effect on private consumption spending. Generally, consumers adjust to changes in their net wealth very gradually and the impact on consumer spending was actually on balance positive until Q1 08. Looking forward, house prices are set to decline throughout 2009 and the impact on private consumption will be negative for the next several quarters.

The net effect from housing on GDP growth should remain negative throughout our forecasting period although the growth impact is expected to become gradually less negative during 2009. In the coming quarters, the impact from falling prices will therefore take over the driver's seat from residential construction.

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