Housing Market Note

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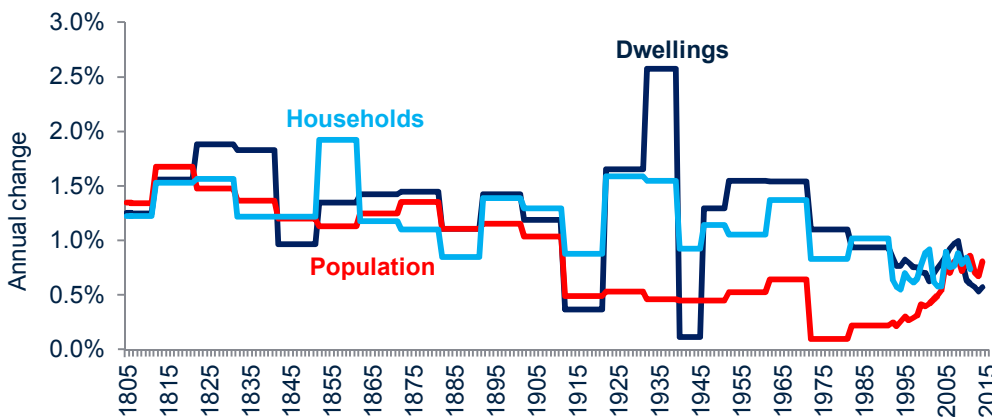
Residential Research

NEW BUILD SUPPLY

A Panacea?

House prices have been rising again. One of the most frequent explanations for this and the underlying housing crisis is by reference to supply and demand. A typical argument is that new build supply has consistently failed to meet the rate of projected household formation. Increasing new housing supply to this rate (around 220-250k per year) is widely seen as the solution to the crisis. Can new build supply be the panacea that many appear to hope?

Unfortunately this argument is based on an overly simplistic model of the market. Focussing on the above measures misses the wider complexities of the housing market. New build completions are only ~10% of all transactions and so the second hand market is the majority of available housing supply at any given time. More importantly, household projections are not an indicator of housing demand. They are, at best, an indicator of housing need but even then are flawed. Historic household formation was influenced by the availability of homes to move into. The projections are based on these historic trends and so could be under or even over-estimating the future rate of household formation, especially at local levels.

Neal Hudson
Associate Director
07590 531150
nhudson@savills.com
@resi_analyst

Fig 1 – Annual Change in Dwellings, Households & Population, England & Wales

Source: A.E. Holmans, DCLG, ONS

Fig 2 – What would you expect to happen to UK real house prices if new supply did manage to hit 250k pa over a 5yr period?


Source: 122 respondents to my Twitter poll

Actual housing demand is determined by the number of people willing and financially able to buy a home, second home or investment. That willingness and ability will be dictated by a number of factors including but not limited to: their ability to sell their existing home, their access to housing equity/deposit, their access to credit at an affordable price, their current income and expectations of future earnings/employment, the financial and tax (dis)incentives of property ownership, expectations of future returns, and sentiment in the general market and at an individual level. Of these factors, it is perhaps the cost and availability of credit that has had the greatest direct effect on housing market demand over the last two decades.

To illustrate the scale of credit availability relative to demand, I've created a simple model to translate the annual value of gross lending for house purchase into transactions while maintaining the 1995 average buyer's debt to income multiple. Fig 3 compares actual transactions and the number that would have been required to 'absorb' the total value of lending for purchase in each year at the fixed debt to income multiple. It suggests that an additional 900k transactions would have been required in 2002 to maintain debt (and possibly house price) to income multiples at 1995 levels. Instead, house prices rose by 25%.

The model is clearly an over-simplification. Although the total difference in transactions since 1995 is over 11 million, the effect of increased supply and reduced price growth in any one year would most likely have reduced the appetite for additional credit from both lenders and borrowers in subsequent years. Despite it's issues, the model demonstrates the scale of credit availability during the boom and hopefully highlights that housing demand is more than just a number derived from demographic modelling.

Fig 3 – Housing Transactions and Gross Lending
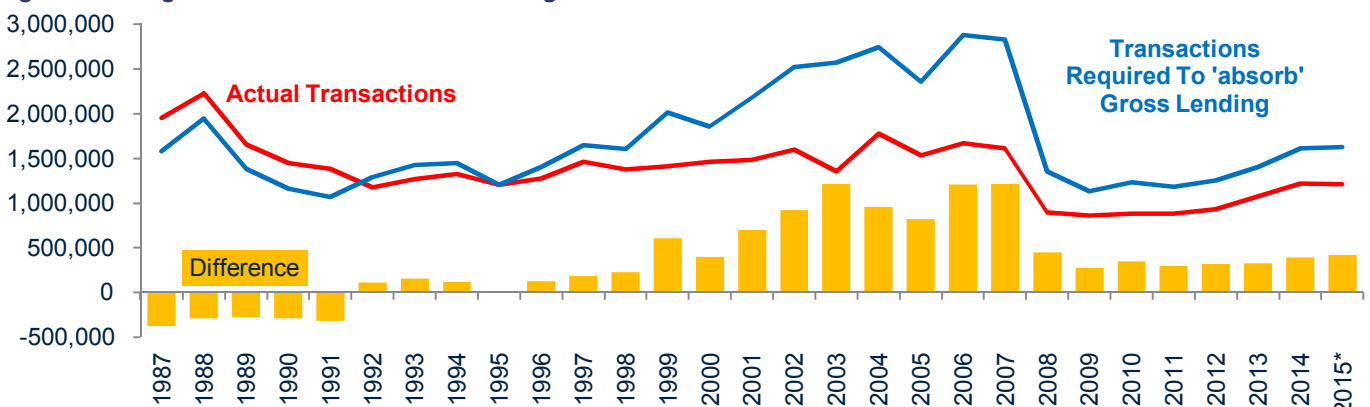
*Source: Savills using ONS, CML, HMRC *estimated using first 3 quarters*

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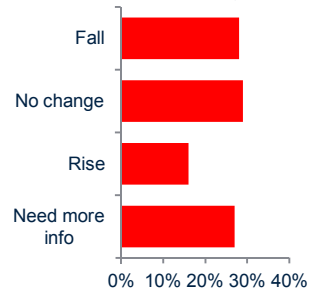
Fig 4 – Additional private homes required to reduce real house price trend to:
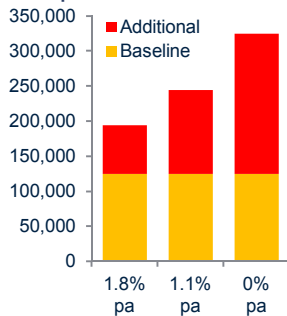
Source: Barker Review, 2004

*Glen Bramley 2013:"Housing market models and planning"*

Kate Barker 2014: "Housing: Where's the Plan?"

The housing market is far more complex and interconnected than suggested by a simple supply and demand equation. Unfortunately, it is relatively easy to turn household projections into a number of homes needed in any particular area, irrespective of whether the answer is correct or not. Meanwhile it is much more difficult to translate house prices or other market indicators into a number of homes needed with a method that is agreed and understood by a wide range of people.

Despite some of their complexities, existing academic models of house prices do offer a potential alternative. For example, the modelling and resultant scenarios (not targets) put forward in the 2004 Barker Housing Review split out the additional private and affordable supply required to meet both demand and need. The Review's scenarios for private housing (Fig 4) suggest that meeting demand would take more supply than implied by household projections and also offer a possible answer to my Twitter poll (Fig 2 on the previous page). The scenarios suggest that delivering around 250k additional private homes per year would bring the future long-term real price growth trend down to 1.1% per annum and ~320k homes per year would bring the trend down to 0%.

However, an important lesson from this and other academic models is that *"the affordability benefits of greater supply are rather modest and very long term." Bramley 2013**. Various models suggest that it could take decades of high supply to have any meaningful impact on house price to income ratios. The chart below highlights this issue with nominal Spanish and Irish house prices following a similar trend to the UK during the late 1990s / early 2000s as prices were driven by credit availability, falling mortgage rates, and speculation. It was only when the credit crunch hit that the difference in supply had a meaningful impact on prices. As Kate Barker points out in her book*, the UK's lack of supply (and lots of short term mortgages) helped avoid a bigger crash.

Fig 5 – UK, Irish and Spanish House Prices, Indexed At 2007 Peak
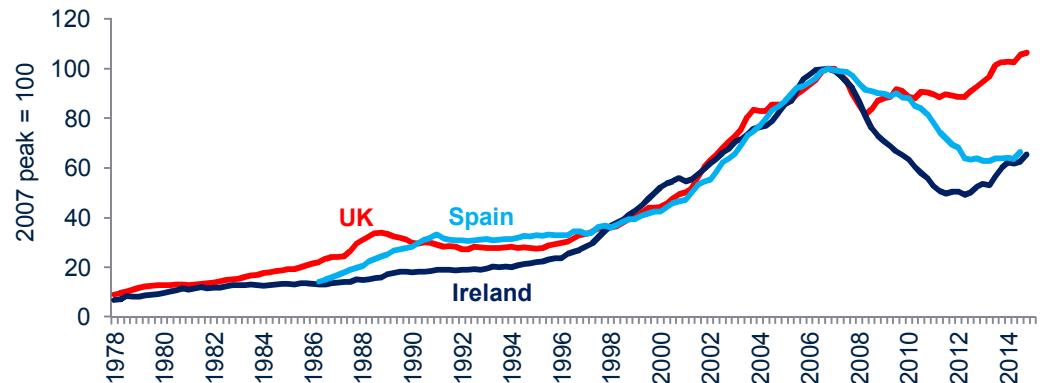
Source: Nationwide, ECB

The OBR's house price model* reaches a similar conclusion to previous research: as incomes rise, the demand for housing rises faster. Their model suggests that even if housing supply kept pace with household formation, both growing at 1% pa, and real income growth was 2.2% pa, then house prices would still grow by 3.3% in real terms. However, there is an important consequence of the OBR model. As prices rise faster than incomes, it relies on a growing household debt to income ratio. That could be a concern given the difference in current mortgage lending conditions compared to the historic period on which much of the model's data will be based, especially with an increasingly regulated mortgage market and the prospect of rising interest rates.

information taken from Office for Budget Responsibility Working paper No.6: Forecasting house prices, July 2014

However, the OBR forecasts do show household debt servicing costs staying well below pre-crash levels. This looks sensible given their forecasts for continued low mortgage rates (3.3% in 2020) but may not account for distributional issues in the market. That is, despite government policy, we will probably still see a smaller pool of mortgaged homeowners holding higher multiples of debt relative to their own income than in previous generations. This raises questions about individual households' ability to service ever-rising debt to income levels, even if it looks affordable at an aggregate level.

The OBR recognise their model's constraints and so their approach is *'a combination of short-term indicators, an estimated model and the judgment of the Budget Responsibility Committee"*

This explains the recent changes to the forecast. Closer scrutiny has led to assumptions on tighter lending conditions, reducing debt availability and hence the ratio

Fig 6 – Gross Household Debt to Income Ratio

Source: ONS, OBR

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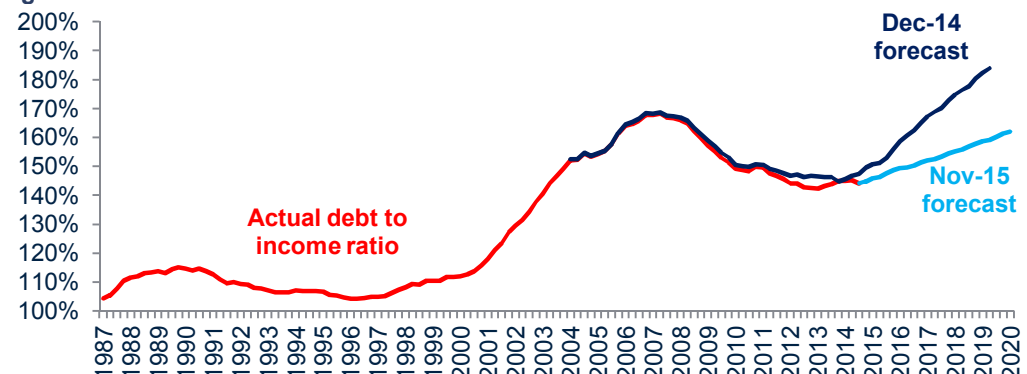
Economics of the United Kingdom Housing Market – oral evidence 1/12/2015

So, can new build supply help improve affordability? If the academic models are correct then it would appear we need to build substantially more homes than household projections, current ambitions, and housebuilding capacity suggest is possible. Even then, it would require building them in appropriate locations and could take decades to realise the benefits. Therefore we should also tackle credit supply, taxation, investment incentives and many of the other contributing factors to current high house prices. If the academic models are incomplete, then it gives us even greater reason to tackle these other contributing factors while still building sufficient homes to meet a more robust measure of housing need. Perhaps the best way forward, as suggested by Martin Wolf in his evidence to the House of Lords' housing market inquiry*, is to just get on with building *a great many more* homes. At least then we would have better evidence on the interaction between house prices and new build supply, and perhaps more people would have an affordable home to live in.

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