COMMENTARY: THE HOUSING MARKET AND THE MACROECONOMY

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"People want a home they can call their own."

Margaret Thatcher, Party Political Broadcast on housing and rates, 28 August 1974.

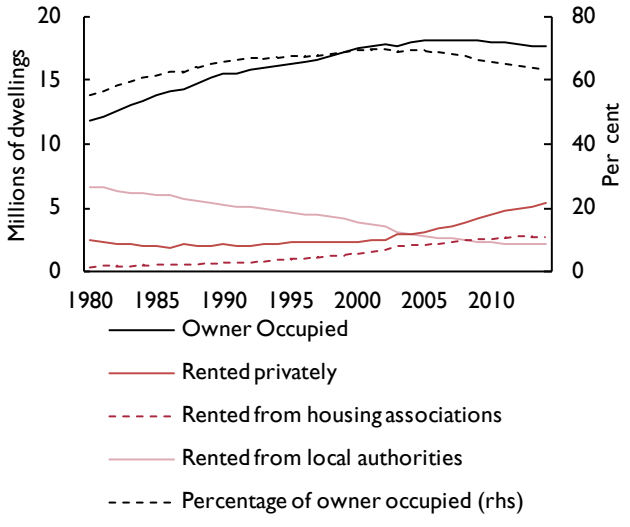
Introduction

It might only be just a little too strong to argue that the housing market dominates our national life. Whilst economists, if they consider housing at all, would think of the consumption of housing services as another aspect of the basket of goods and services bought, like clothing or food, most people would place the decision on the location and type of their accommodation as critical to their sense of well-being if not their very identity. Indeed accommodation may not only represent the key to understanding people's perception of their own status but as the critical determinant of the wealth as it operates as a vehicle for household saving.

So the first question we might ask ourselves is what do we buy when we buy a house? Essentially we buy the permanent value of flow of accommodation and amenities provided by the house in any particular location. For the most part we also buy the land, or a fraction, of the land on which the house is built. The value of the house then should be something close to the present value of those housing services over the lifetime of the house minus the costs of repair and maintenance plus the value of the land. It is thus not immediately clear why prices should appreciate markedly as it would require sharp revisions to the value of housing services, the underlying value of land or changes in the rate at which we discount the future. But as we shall see they have appreciated markedly.

While the number of households has increased by 30 per cent from 1981 to 2014, the population increased by only 14.6 per cent over the same period. And within that the number of households who are owner occupiers has grown dramatically (figure 1). There were just under 12

Figure 1. Trends in home ownership (mn)



Source: ONS and NIESR calculations.

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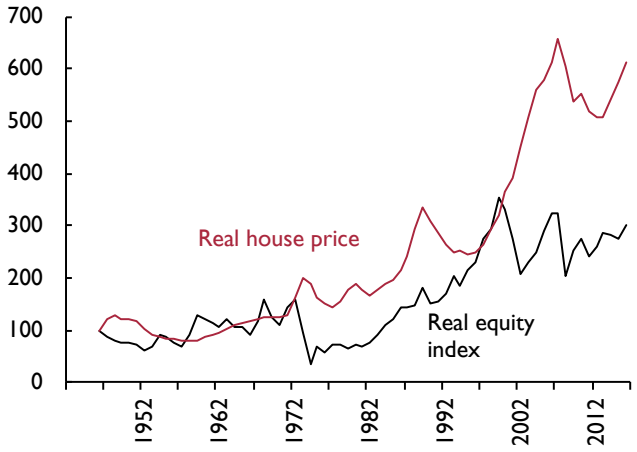
million in 1980 and this peaked at just over 18 million in 2008. And although the fraction of householders who were homeowners peaked at around 70 per cent in the early part of this century and declined to some 62 per cent by 2014, the increase in home ownership almost directly offset the scale of local authority housing provision over the same period. Since the early part of this century there has, though, been an increase in those renting privately and from housing associations.

A good on which we place a higher preference might be one to which we devote a considerably higher fraction of our income. And indeed as far as household expenditure, which is an outcome rather than a preference, is concerned we have increased the share of our expenditure on housing (including expenses such as mortgage interest, rent, council tax and maintenance) from 9 per cent in 1957 to 18 per cent by 2016 (ONS, 2017). We have similarly increased our expenditure on leisure goods and services from 8 per cent in 1968 to 19 per cent in 2016. Taken together these seem to imply a society more geared to consuming local amenities and leisure than in the immediate postwar period, perhaps more in line with the optimistic hopes a century ago than we might have thought (Keynes, 1930).

Asset price performance

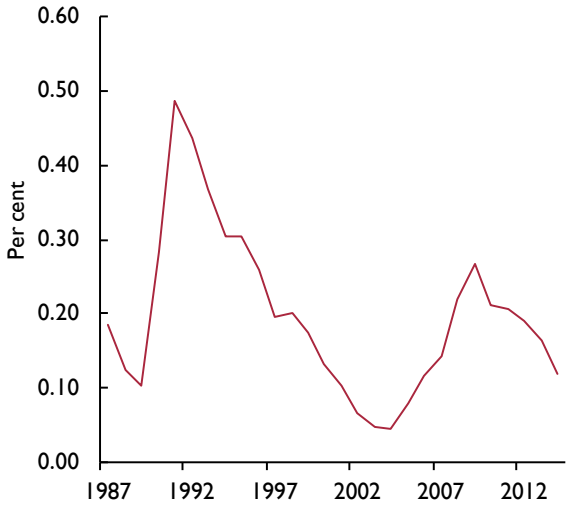
Economists are mostly concerned with the evolution of prices and quantities in a market and, if we for a moment hold the quantity of land as fixed, the secular rise in house prices is quite remarkable. It is no simple matter to construct a house price index but it would appear that the representative housing unit increased some six-fold relative to the price of consumption goods, since the end of WW2, compared to some three-fold increase in equities (figure 2). At least at face value the purchases seem to have offered a good return.

Figure 2. Real housing prices and equities index (1946=100)



Source: Bank of England Millennium database and NIESR calculations.

Figure 3. Percentage of repossessions relative to all home-owners



Source: ONS, CML and NIESR calculations.

The purchase of housing is often (but not always) a leveraged purchase where the purchaser borrows a large fraction of the underlying price and places a limited amount of equity into the asset. As with all leveraged buy-outs, this type of purchase allows a much higher return on equity than an outright purchase. It does though mean that the purchaser faces the possibility of losing all their equity if the purchase is made just prior to a period of price falls and the lender of the balance takes the risk of not being repaid but also of bearing the costs of liquidation should the borrower walk away from the property (see Goodhart *et al*., 2016, on the problems of dealing with default in macroeconomic models). Fortunately in the UK defaults have remained low, even after the financial crisis, with a peak of less than 0.3 per cent of homes owned being repossessed, which is itself considerably fewer than in the early 1990s (figure 3).

The macroeconomic background to this low rate of default is intriguing as it has much to do with high levels of employment, which has maintained household income, and significantly lower borrowing costs with a long period of ultra-low interest rates. The corollary of whether the very importance of housing in national life has acted to constrain interest rates or simply increase

the overall sensitivity of aggregate demand to changes in policy and so allow rates to operate with more traction on the economy at both lower levels and over a small overall range is of great interest.

Chadha (2015) compared the return on equities, bonds, and housing over a 40-year period and found that housing returns were favourable for a regular long-term investor. The exercise was repeated for an investor with a 10-year horizon, who saves every year for ten years, perhaps to get enough money together for a deposit on a house. The exercise imagined here is to save a set amount every year for ten years in one of the three assets and see whether at the end of ten years the returns from one asset dominates. As we might expect, the returns from equities show the highest variance, occasionally crossing below break-even over ten years but at no point does 10-year investment in housing or bonds show a loss. So even if we are building up savings in the short run, housing may offer quite a good vehicle. But, of course, housing is the one asset that we cannot very easily invest in little units alone.

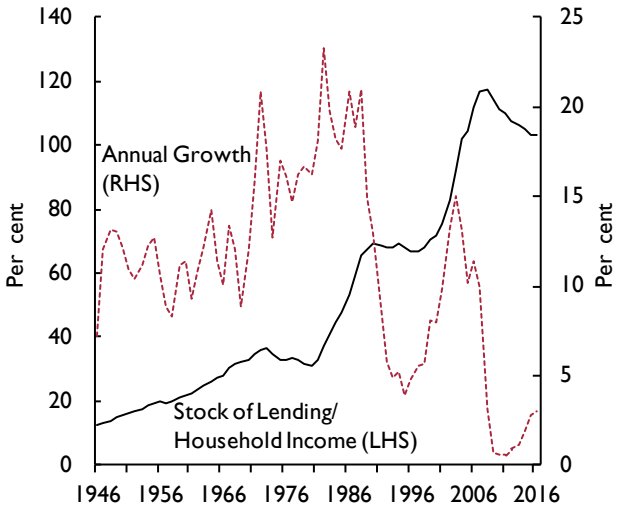
One way we might therefore be able to smooth this process when we buy or when we want to reduce our exposure to house price changes is to develop further the market for equity participation in home ownership (see Miles, 2015). Such a market would allow the part-liquidation of assets, earlier house purchase and also limit the risks faced by house buyers and lenders. Some schemes are available with employers and with the government for new homes through Help to Buy, which is responsible for some 3 per cent of all residential transactions but over 30 per cent of new build transactions.

Financial amplification

In a sequence of relaxations in credit controls since the Radcliffe Report of 1959, lending conditions until the financial crisis of 2007/8 were progressively eased. Indeed we can observe that both household credit and lending to private non-bank financial corporations not only moved in a synchronised manner but also in a manner that may have acted to amplify rather than attenuate the cycle. As the economy expands, lending conditions tend to ease and so positive shifts in supply will tend to encourage more loans and investments to occur from escalating asset prices, which support the value of collateral. The reverse is also usually the case (see Chadha, Corrado and Qi, 2010).

But as well as over the business cycle, we can also observe at the secular level a large increase in the quantity of loans secured on dwellings relative to household income

Figure 4. Secured lending to households and NPISH



Source: Bank of England and NIESR calculations.

(figure 4). This increase in the quantity of lending might imply both some suppression in the past but also perhaps some excessive levels in the more recent past, particularly as banks replaced building societies as the main providers of mortgages. The increase in the stock of loans represents both the preference for holding housing but may also reflect to an extent that housing represents a leveraged form of accumulating assets.

The financial crisis saw the introduction of MPIs (see Mizen *et al*, 2018) that both ration the availability of loans to risky households but can in principle be used to offset the cyclical tendency of the financial sector to amplify the business cycle. The hope here is that the overall quantum of risk from this sector will be limited but the actual availability of loans will not impinge too greatly on the plans of households. It seems inevitable that such controls may tend to bear down on the marginal borrower who is more likely to have lower income, less equity to lay down and may come to the labour market with lower levels of human capital. So unless we are very careful such policies may introduce more inequality as poorer households will be unable to access the purchase of leveraged assets.

Regional issues

We can examine an aspect of inequality by looking at house price movements in the nine English planning regions. In 2004 the average house price in the North East was just under £100,000 and it is now around

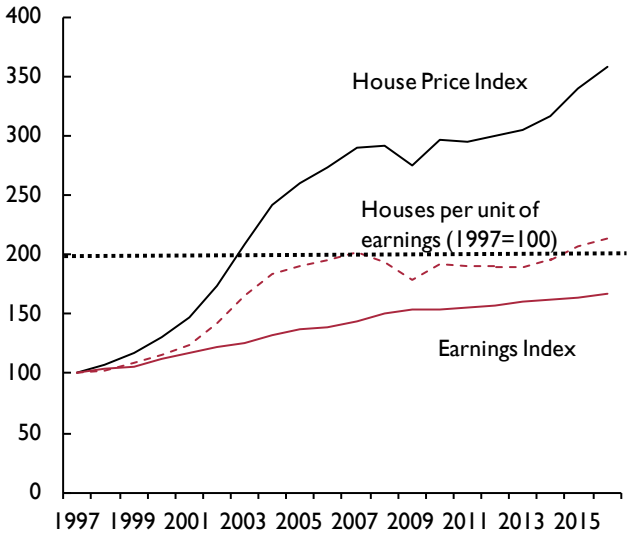
£128,000, which implies an annual rate of return of around 2 per cent. Over the same period, the average house in London has gone from £219,000 to £482,000, which is an annual rate of return of some 6 per cent. This relative rate of return represents a huge divergence. And means that the average dwelling in London is worth some 3.5 to 4 times that found in the North East. A less disturbing but similar story emerges if we compare the South with, very broadly speaking, the North with a ratio of around two units for one.

These differences in price might be equilibrium phenomena with the value of amenities increasing at a much faster rate in the South. And it could even be that travel has become so costly in terms of price, energy and time that the premium has multiplied (Miles and Sefton, 2017). What might help the equalisation of prices would be the creation of more nodes to challenge London's pre-eminence, as would the relaxation of planning restrictions around London (see National Infrastructure Commission, 2017).

Supply and affordability

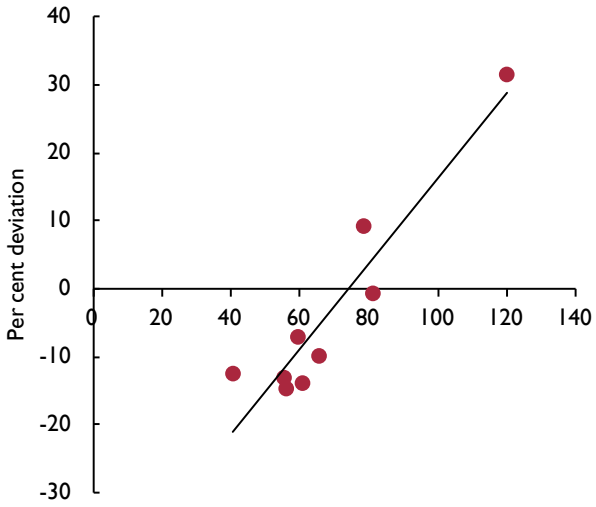
If we temporarily aggregate the housing market back up again we can start to assess the question of affordability. The rapid increase in wages after WW2 fostered the affordability of housing to a level at which it remained from the mid-1950s to the mid-1990s. The house price booms of the 1970s and the 1980s quickly petered out, in terms of aggregate affordability. The subsequent doubling of house prices relative to weekly earnings has been a surprise. Essentially since 1997, house prices have doubled relative to incomes (figure 5).

Figure 5. Affordability of housing since 1997



Source: ONS and NIESR calculations.

Figure 6. Regional English house price rises (2004–17) versus relative productivity

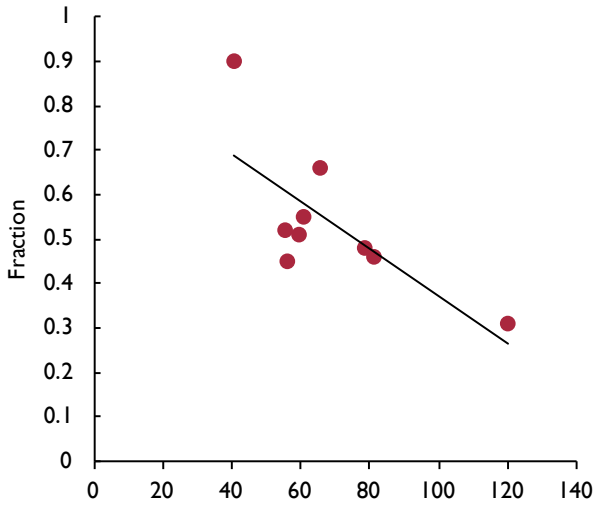


Source: ONS and NIESR calculations.

To some extent the increase may reflect notions of permanent incomes rather than current income. We can examine the extent to which relative productivity, measured as the deviation from the national average in 2017 and as a loose proxy for permanent income, explains relative house price performance. Figure 6 suggests that there may be some association between regional productivity and relative house price movements.

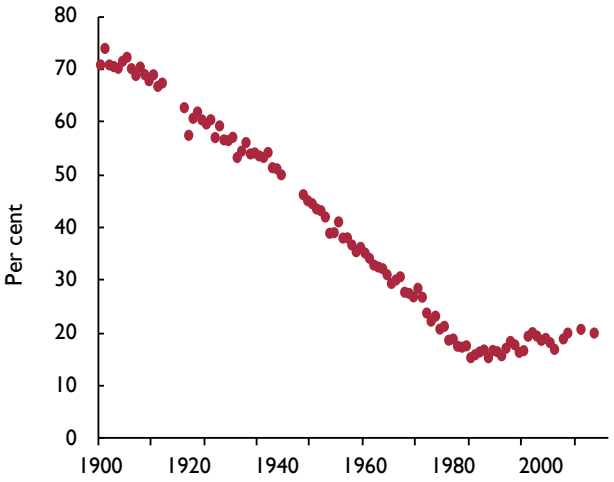
We can also start to combine our preference and income with the supply to better understand prices. And we can compare the increase in housing supply with the increase in the population (which we can assume is exogenous). Using housebuilding completions as the measure of supply this shows a ratio of 0.46 for England as a whole, over the period 1991 to 2014, with the range varying from 0.31 in London to 0.66 in the North West and 0.9 in the North East. In other words, housing supply has been particularly constrained in London and the South East where house price increases have been highest. Figure 7 illustrates this point by comparing completions relative to the populations in each of the nine English planning regions (over 1991–2014) with the cumulative increase in house prices from 2004–17 and suggests that relative supply may play a role in explaining relative price changes as well.

Figure 7. Regional English house price rises (2004–17) versus housing completions/population



Source: ONS, National Infrastructure Commission and NIESR calculations.

Figure 8. UK Wealth shares held by top 1 per cent



Source: Alvaredo *et al.* (2016).

There is much we can do on supply. Only around 10.6 per cent of land in England is classified as urban and only 2 per cent has buildings on it according to the National Ecosystem Assessment in 2011. There is also considerable brownfield land that could be used for housing. And if we release 0.3 per cent of total Green Belt land (which covers 13 per cent of England's land area), specifically in London, it would provide space for just under 200,000 homes.

A vehicle for savings

The sharp increase in house prices has left us with an economy in which some 2.5 times GDP is held as real estate by households at £5.4 trillion in 2015 at just under 50 per cent of overall household wealth (see Chadha, 2017). Although that wealth is concentrated in older hands, on aggregate, it may not be net wealth, because it may simply increase wealth for holders of assets at the expense of those who wish to buy it. It is difficult to understand why changes in the value of the housing stock represent net worth in the economy when there are households looking to enter the market at the same time. To the extent that increases in house prices simply represent an increase in asset values held by some households and an offsetting increase in current or contingent claims on other households, there may be little net wealth. But many researchers continue to find an empirical role for housing wealth in explaining patterns of consumption and risk-smoothing in the presence of temporary income shocks (Muellbauer, 2016).

That said, once households are on the housing ladder then it seems to provide a suitable way of escalating savings. And the increase in house prices along with wider house ownership has actually stabilised some measures of wealth inequality at levels far below where they were for most of the 20th century (figure 8). What increase there has been since the 1980s is marked only if we exclude housing wealth (Alverado *et al*, 2017). A positive possibility is that with inheritance more wealth will cascade to younger generations and the picture will improve but a more malign possibility is that the young will simply have to wait too long and this will materially affect life chances. Again facilitating the distribution of equity from old to young might well help.

Concluding remarks

The housing market in the UK is not far off a national obsession. One inference is that we seem to have a national preference for housing. In the past 60 years we have increased the share of consumption we devote to housing services from under 10 per cent to nearer 20 per cent. This preference is reflected in high prices, the overall value of the housing stock is some £7 trillion and around 3.5 times national income.

We tend to treat housing as a composite asset and consumption good rather than just consumption and it has shown a remarkable performance in the UK as an asset class. It has often outperformed the all-share equity index. Accordingly, we hold a large fraction of

household wealth in real estate than in other classes of financial assets. It is questionable whether housing constitutes wealth in the sense that changes in prices represent claims on an income stream (Gale, 1982). But it seems to serve as a store of value.

The value of housing is high both relative to income and most other measures of historic affordability. But there is considerable regional heterogeneity in house prices. The rate of exchange between a house in London and in the North East, implies, at least, 1 for 3. Similarly the ratio of house prices in the South versus those in the North is in the order of 1:2. These price differences are mirrored in the measures of regional productivity at the regional level and may imply that there are fundamental factors for the heterogeneity, with access to London explaining regional price patterns. But rather than an equilibrium outcome, the price dispersion may also be acting as a brake on factor mobility.

But there are some signs of an adjustment. The overall level of home ownership increased rapidly since the 1980s but peaked around the time of the financial crisis. The stock of secured lending similarly has fallen from a peak of nearly 120 per cent of household income in 2008 to just over 100 per cent. And the annual growth in such lending remains well below its postwar growth rates. Various measures by the financial authorities instruments, known as macroprudential instruments, have acted to limit the risks of major defaults in house prices and hence on more volatile adjustments in house price, with its spillovers to the overall business cycle.

The problems of high property prices are very much tied up with social inclusion and exclusion. The question is whether those outside the generational transfers of property wealth will be able to participate in the housing market. Indeed it is possible that reducing the riskiness of lending may have increased the participation problem and possibly made borrowing by other means more problematic. For example, saving 15 per cent of a £350,000 house is no mean feat, particularly if the underlying house price increases by 5 per cent per year meaning that some £85,000 will be required as a deposit in ten years and that implies saving some £8000 per year if we allow savings to accrue interest.

If an aging population is holding too much financial wealth in its houses, unlike in the US, where the elderly have a greater tendency to run down their wealth, then some methods of allowing housing equity withdrawal will make a lot of sense (Blundell *et al*, 2016). And given that much of the purchases of housing involve leveraged purchases, where equity might be as little as 5 per cent of the underlying asset value, then providing incentives for widening equity participation may both provide a way of allowing more agents to benefit from returns in the property sector and also reduce the riskiness of borrowing. But solutions to the housing problem ultimately depend on the social objective function. And if we wish everyone to have a home of their own then the clear answer will not be far away from increasing supply.

NOTE

1 With thanks to Stephen Aldridge for bringing this point to my attention.

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