

3 – UK housing market outlook: the continuing rise of Generation Rent

Introduction and summary

In this section we review recent trends in the UK housing market and present projections for house price growth in the UK and the regions. In addition, this new research looks at trends in tenure (i.e. whether people rent or own the homes they live in). The key findings are:

- House price growth in the UK has decelerated over the past year, especially in London.
- **Nonetheless, we project that average house prices will rise by around 5% this year.** Assuming that the supply of new homes continues to be relatively sluggish, house prices are expected to keep growing at around this rate for the rest of this decade. In our baseline scenario, **the average UK house could be worth around £360,000 in cash terms by 2020.**
- As house prices have risen and social housing supply remains constrained, the number of households in the private rented sector has more than doubled since 2001, rising from 2.3 million to 5.4 million by 2014, around 20% of the total. We project that this trend will continue with **an additional 1.8 million households becoming private renters by 2025.** This would take the total to 7.2 million households – almost one in four of the UK total. The trend is particularly strong in the 20-39 age group where more than half will be renting privately by 2025. The rise of ‘Generation Rent’ will continue.
- **Fewer households will have mortgages.** The number of households who own their home with a mortgage fell from around 10 million in 2001 to only around 8 million in 2014. We

line to 7.2 million by 2025 as limited housing supply, affordability and mortgage availability make it harder for first time buyers to get on the housing ladder.

- The other key tenure trend is that a **greater number of people than ever before own their own home outright.** This now accounts for 8.4 million households or 32% of the total. We expect this to rise to 10.6 million households, 35% of the total, by 2025. A key driver is the rising proportion of over 60 year olds in the UK, who are far more likely to have paid off their mortgages.
- **For younger generations, renting privately is now the norm and many will only become home owners quite late in their adult lives.** A significant rise in the supply of affordable housing might change this in the long run, but seems unlikely to occur fast enough to stem the rise in Generation Rent between now and 2025.

The discussion below begins by reviewing recent housing market developments (Section 3.1) and then goes on to consider trends and prospects for housing tenure to 2025 (Section 3.2). Section 3.3 then concludes by looking at projected future UK and regional house price prospects. Further details of our modelling work are contained in a technical annex at the end of the article.

3.1 – Recent housing market developments

There has been a marked deceleration in UK house price growth so far in 2015, following a period of accelerating increases since 2012. A slowdown is not wholly unexpected: average UK house price inflation was around 10% in 2014¹, far above the growth in earnings.

Growth in London reached an even higher rate of 17.4%.

By May 2015, in contrast, UK average house price growth had fallen to 5.7%. The price slowdown in London has been even more marked, declining to 4.7%. Base effects (the surge in prices a year ago) mean that the house price inflation rate in London could even turn negative during the summer, although we would expect this to be only temporary as the election result has removed fears of a possible mansion tax that would have affected London much more than other regions.

House price growth in 2013 and 2014 was accompanied by an expansion in gross mortgage lending, indicating that looser credit conditions helped to release pent up demand. However, the past year has seen lending weaken. Monthly gross mortgage lending peaked at £19 billion in July 2014, but has now stabilised at around £16 billion a month. This is likely to be restricting demand, contributing to the slowdown in house price growth.

Another important and much publicised factor is the limited amount of new housing available. Decades of declining housebuilding continue to bite, whilst population growth has increased markedly. Over the last five years only around 140,000 homes a year have been completed, well below average rates over the last four decades.

Rising house prices tend to have an adverse effect on affordability, acting as a natural brake on the market. But unprecedentedly low mortgage rates have meant that some aspects of affordability

have fallen well below their 2007 levels and have followed a general downward trend since then (as shown in Figure 3.2). However, as we discuss

¹ According to the ONS's most recent house price statistics, which we use throughout this report as our source of house price data. But most house price indices have shown broadly similar trends over time, even if estimated house price inflation can sometimes vary materially across indices in the short term.

further below, initial deposits have become a bigger affordability problem for many first time buyers.

Market commentators tend to focus mostly on house prices, and we have updated our projections for these prices in Section 3.3 below. But there is another huge change underway in the market that we look at first. In 2001, just 10% of dwellings were privately rented, but now this figure is almost 20%. Furthermore, the proportion of households with a mortgage has fallen from almost 45% to under 30%. There is a growing dichotomy in the market between those who own a house outright and aspiring buyers.² At the same time, the ability of people to use the mortgage market to make the transition from renting to owning appears to be diminishing, with younger generations having to wait longer to buy in many cases.³

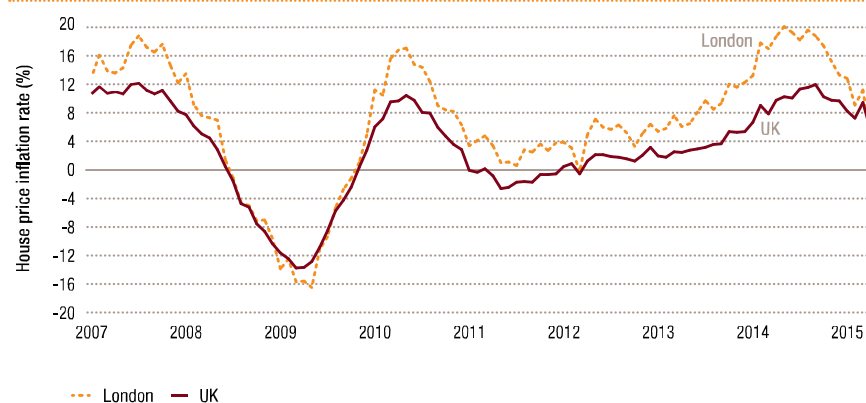
3.2 – Housing tenure in 2025: the continuing rise of Generation Rent?

We highlight the recent shifts in UK tenure trends below, which can be summarized into three broad phases.

Phase 1: 1981-1990: *Thatcher's mortgage boom*

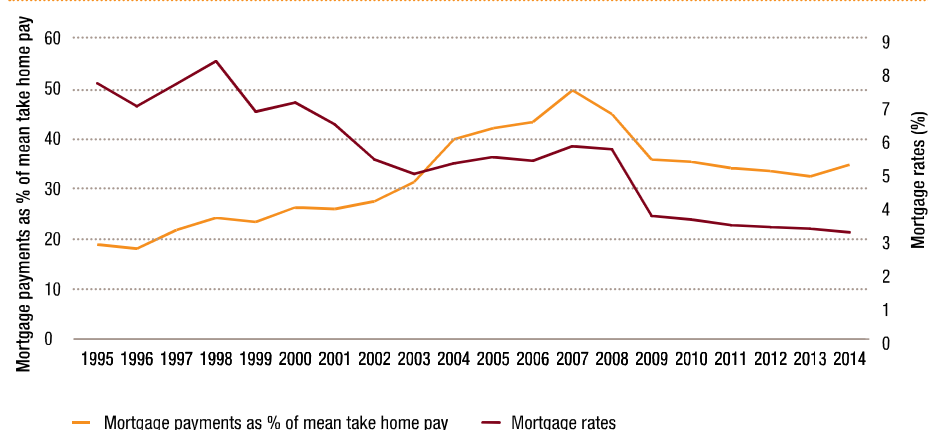
The 1980s offered many the chance to own their own homes for the first time. The Conservative government under Mrs Thatcher used Right-to-Buy as a tool to fulfil Britain's housing aspirations and this was supported by extensive liberalisation of the financial sector, which made mortgages much more widely available. This supported a significant fall in the share of people living in socially rented accommodation from 33% to 25%. In their place, the number of home owners with mortgages grew, from 32% to 41% by the end of the decade.

Figure 3.1. House price inflation rate, UK and London (cash terms)



Source: PwC analysis of ONS data

Figure 3.2. Mortgage rates and mortgage interest payments, % of take home pay



Source: PwC analysis of Nationwide and Bank of England data

Phase 2: 1991-2002: *Increasing outright ownership*

At the start of the decade, mortgages rates were driven to highs of 15% in 1990, and the ensuing recession and house price collapse brought a swift end to the mortgage-driven boom of the 1980s. But the following decade saw increasing numbers of people come to own their home outright as the population aged and older mortgages matured. During this period owner occupied tenure grew from around 25% in 1990 to around 30% by 2002, and social rented housing

continued to decline (albeit at a slower pace than in the 1980s) as council homes continued to be sold and fewer replacements were built.

² According to the 2013-14 English Housing Survey, 61% of private renters (2.5 million English households) stated that they expected to buy a property at some point in the future.

³ 26% of private renters who indicated they expected to buy said that they expected to buy within two years, but 44% expected that it would be five years or more before they could buy a property.

Phase 3: 2003-present: the rise of Generation Rent

In the 1980s and 1990s, the share of households li

latively stable at around 10% of the total. However, from 2003 onwards, growth took-off and the proportion of households who were privately renting almost doubled. The global financial crisis brought tightened credit conditions, particularly affecting deposits, forcing people to rent for longer. Home ownership with a mortgage fell sharply, social housing continued to decline gradually, and only modest growth was seen in outright owner occupation. The private rented sector acted as a default option for the increasing number of people who could neither afford to buy nor qualify for social housing. For some people, renting may be a desirable choice for its flexibility, but for others it may be due to the absence of alternati tions.⁴

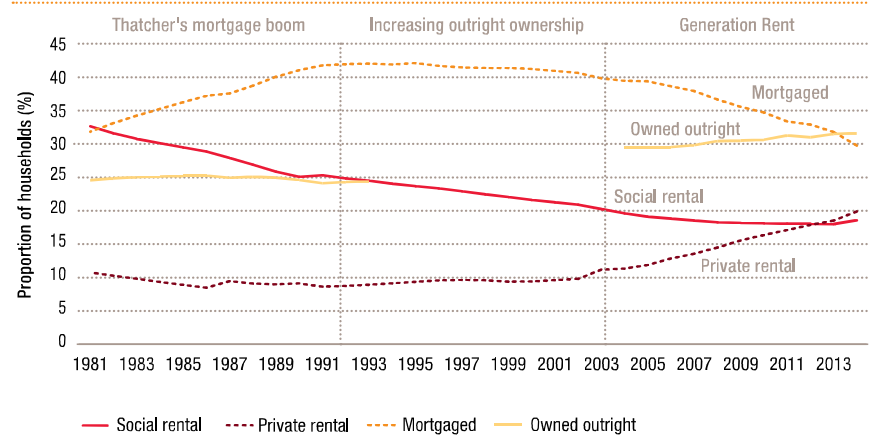
How will housing market tenure change up to 2025?

In order to assess whether these recent trends are set to continue, we must first understand what has driven them. We evaluated a range of financial, demographic and supply measures and identified three factors that appear to have had a particularly strong influence on the split between households buying and renting.

Affordability

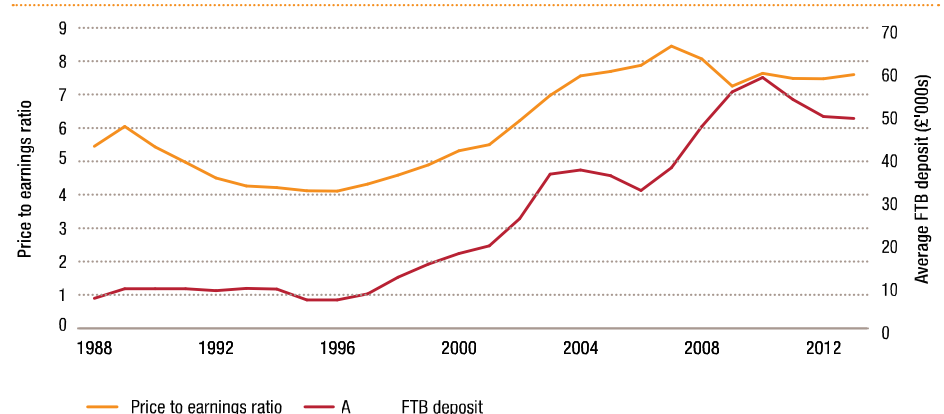
Renting has become more common as buying a property has become less affordable. The steep increase in house prices in the early 2000s led to a doubling of the house price to earnings ratio, from around 4 in the 1990s to just under 8 now (see Figure 3.4). Whilst falling mortgage rates (shown previously in Figure 3.2 over) have constrained the growth in interest costs, the same is not true for first time buyers' deposits.

Figure 3.3. UK share of households by tenure type, %



Source: PwC analysis of English Housing Survey, DCLG

Figure 3.4. House price to earnings ratio, and average first-time-buyer deposit, 1988-2013



Source: PwC analysis of ONS data

First time buyers have been hit by the combined effect of rising house prices and lenders withdrawing higher Loan-to-Value mortgages. This means that average first time buyer deposits have increased almost five-fold since the late 1990s, from £10,000 to almost £50,000 (see Figure 3.4).

The rise in average deposits far exceeds the growth in average earnings over this period (which have gone up by only around 50%), so creating a much greater hurdle for first time buyers to overcome.

This trend threatens to lock large segments of society out of the housing market, especially those on middle or low incomes, and who live in higher priced areas such as London, Oxford and Cambridge.

We observed earlier that the proportion of people living in private rented accommodation had doubled from around 10% to 20% overall since 2000, but for those in the 20-39 age bracket it has jumped from 20% to 50%. In terms of trends in deposits looking forward, whilst

4 Based on regression analysis which controlled for other factors such as income, economic status and health, English Housing Survey data for 2013-14 suggested that the highest life satisfaction was associated with those owning a detached home outright. Those privately renting flats had the lowest life satisfaction after controlling for other factors.

we expect to see some increase in higher Loan-to-Value mortgages, assisted in some cases by the Help to Buy scheme, the continued increase in house prices will ensure that the ratio remains elevated.

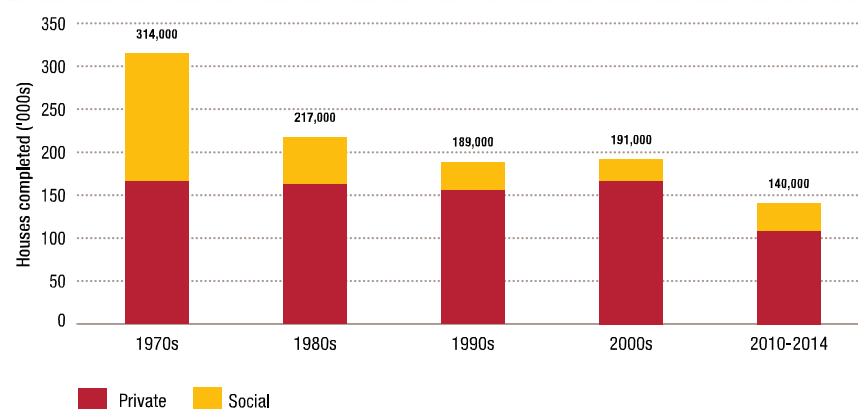
Housing supply

It has long been acknowledged that house building in the UK is insufficient to satisfy demand. The last 5 years have seen an intensification of this shortfall as average numbers of completions have fallen markedly, as shown in Figure 3.5. Low overall building levels have contributed to rising house prices, and the affordability issues discussed above.

There has also been a significant change in the make-up of new housebuilding, which has contributed to the tenure trends. Social housing completions have fallen from 47% of the market in the 1970s to only around 20% on average since 1980 (with some variation over time). The general decline in the number of homes being built also means that the absolute number of social homes being constructed is historically low. This, and the impact of Right-to-Buy moving social rented stock into other tenures, has contributed to the steady decline in social rented housing as replacements failed to keep up with those being sold. The rise of the Buy-to-Let market has also been a factor in the recent rise of the private rented sector.

To gauge potential future trends in social housing supply we have looked at the likely impact of the extension of Right-to-Buy (see Box 3.1 on policy changes below). We expect this to lead to an increase in sales of social housing, with a smaller pick up in building as it takes time for funds raised through sales to be used in new construction. Based on current policies, we expect that this will cause the share of households living in social rented accommodation to continue to drift down over the next 10

Figure 3.5. Housing completions by private and social sectors, annual averages



Source: DCLG

years, continuing the long term trend since 1980.

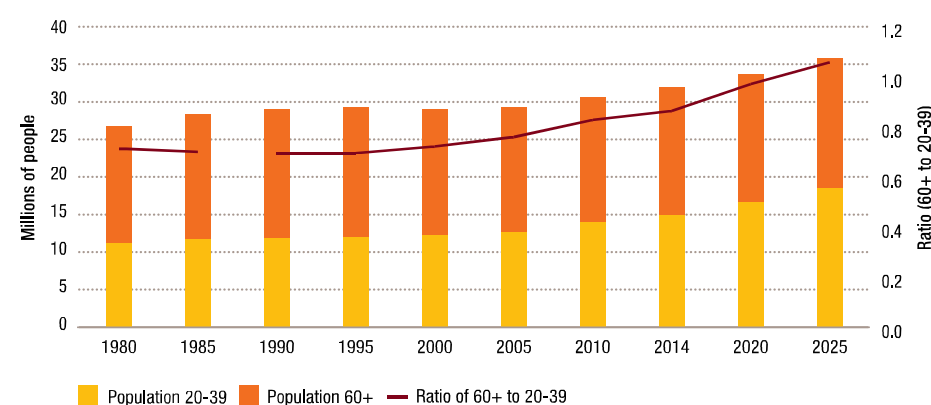
Demographic trends

Demographics have also played their part in the changing structure of UK housing tenure. A growing share of people in older age groups since 2000 has driven the cross-over between those with a mortgage and those owning outright. Those aged over 60 have a far higher propensity to own their home outright than own with a mortgage as loans are often timed to mature around expected retirement ages. On the other hand, the share of the UK population in

prime first time buying ages (20-39) has been broadly flat.

The growth in the over 60s is expected to continue according to ONS projections, reaching almost 27% of the total UK population by 2025. In contrast, the proportion of 20-39 year olds is expected to remain at around 25%. This increases the size of the group with high levels of owned outright tenure relative to those groups looking to take out mortgages.

Figure 3.6. Share of UK population in different age brackets



Source: ONS, PwC analysis

The continuing projected growth of Generation Rent

We have used expected future trends in these factors, combined with observed historic relationships, to generate a projection for tenure trends over the next ten years, as shown in Figure 3.7. See the technical annex for more details of our methodology here.

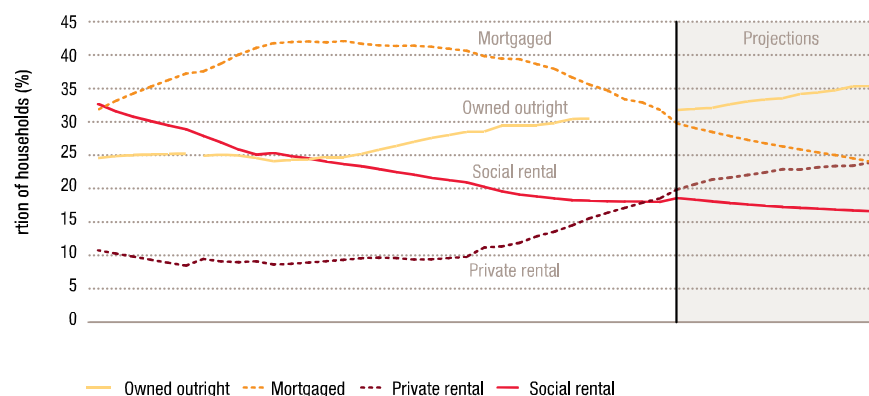
Based on our analysis, the trend towards increased private renting will continue, reaching just under 25% in 2025 from around 20% today. To put this in context, there were 2.3 million household renting privately in 2001; this rose to 5.4 million in 2014 and we estimate that there could be 7.2 million households renting privately by 2025 (allowing for growth in total household numbers).

The counterpart of this is the decline in the number and share of households with a mortgage. We expect this to fall from 29% of the total in 2014 to 24% in 2025, a decline from around 8 million to around 7.2 million (almost exactly the same as the number renting privately).

Outright ownership will continue to rise, as the large number of mortgages taken out in earlier decades mature. We expect this to rise from 8.6 million households in 2014 (32%) to around 10.6 million in 2025 (35%).

The number of households in social rented accommodation will remain broadly flat at around 5 million, although population growth means that their share of the total will decline gradually to 17% in 2025.

Figure 3.7. Projections for UK housing tenure, share of households



Source: PwC analysis, English Housing Survey

Already around half of 20-39 year olds are in the private rental sector and, if our tenure projections are realised, this will become a clear majority. Unless there is a reversal in affordability and housing supply trends, the average age of first-time buyers may continue to rise.

House purchases have historically also been a major factor in driving wealth accumulation of lower and middle classes. The inability of many to get on the ladder may limit this avenue to social mobility in the future. While countries like Germany and Switzerland have large private rented sectors, this is generally in the form of higher quality properties with longer term assured tenancies than in the UK, where tenants generally do not have security of tenure for more than a year and properties are not always of the highest quality. This may change in the long run if private renting becomes more mainstream in the UK, but there is little sign of this having happened over the past 10-15 years, so it is likely to take many decades in practice.

On the other hand, a large and growing segment of the market will own their homes outright, predominantly in older age groups. While these homes may eventually be passed down to descendants, this could also limit social mobility, particularly if the ability to live in highly priced areas is also linked to factors such as access to the best schools.

A full analysis of these issues would take us beyond the scope of this article, but these housing market trends may create significant challenges for policymakers to address, as discussed further in Box 3.1.

Box 3.1

How will current and planned housing policy impact tenure trends?

Government policy is an important influencer of trends in tenure and several announced and potential changes may have an impact.

Extending Right-to-Buy: Discounts given to local authority tenants to buy their homes are to be extended to tenants of housing associations. The generosity of discounts was also increased in 2012 and the maximum now stands at £77,900 outside London and £103,900 in London. While the government hopes to replace all homes sold, historically this has not been achieved; only 46% have been replaced since 2012 according to the National Housing Federation. In terms of the impact, we expect that total sales of social housing may reach 50,000 per year in the short term.

Increased inheritance tax relief for family homes: the July Budget announced a new main residence nil-rate band to be phased in from 2017 that would effectively raise the inheritance tax threshold to £1 million by 2020 for couples with a family home. This could boost house prices at the higher end of the market, particularly in London and the South East.

Impact of pension freedoms and other policies on buy-to-let: New pension freedoms introduced in April 2015 make it much easier to withdraw cash from pension pots and remove the obligation to purchase an annuity. This could cause more pensioners to invest in buy-to-let property. In reality, taxation and fees for fund withdrawal will limit these investments' appeal and few pension pots are large enough to enable people to buy a property: according to Savills only the top 7% have the necessary funds to buy a

property outright. In addition, the July Budget restricted mortgage interest relief to the basic rate for buy-to-let mortgages from 2017, which will tend to dampen growth in this market.

Cuts to housing benefits and social rents: The July Budget announced cuts to the annual welfare

allowance by 2020, including to housing benefit. In addition, social rents will be cut from 2016 onwards, which will reduce the funds that local authorities and housing associations have to build new homes. The OBR estimates a potential cumulative reduction in new social housebuilding over the next five years of around 14,000, though this is not a large effect relative to total new build levels.

Help to buy: To combat the growing hurdle posed by deposits, this scheme has enabled buyers to have much higher loan-to-value ratios, through guarantees and loans. So far, around 50,000 homes have been bought through the scheme, the majority being first-time-buyers. We expect to see the policy's recent extension to 2020 work against the projected tenure trends, supporting movement from rental to ownership. However, numbers are small in the context of the UK market, so the impact will be limited.

Planning reforms and other supply constraints: The new Conservative government has signalled its intention to reform housing planning further, building on changes introduced under the previous government. One proposed measure is to de-centralise planning, giving more powers to local councils. Planning permission for brownfield development has also been prioritised, such as converting old

offices into flats. However, uncertainties remain regarding how far these measures can boost housing supply in practice. Housebuilders also point to other key supply constraints here, notably lack of skilled labour in the construction sector, particularly if more restrictions are put on immigration.

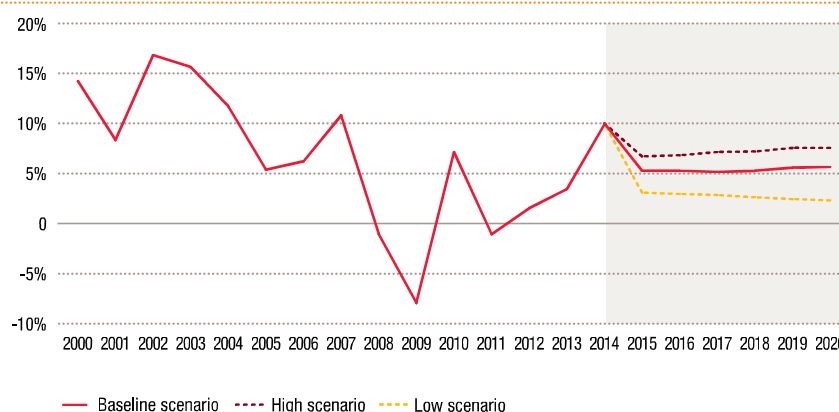
3.3 - House price prospects – UK and regional projections

In this section we present our projections for house price inflation in the UK and regional markets. We use econometric models to make our predictions. These link trends in prices to underlying economic factors and use these relationships to project how prices may evolve in the future. First published in 2006 our model uses annual earnings, housing supply, credit conditions in the market and mortgage interest rates as explanatory variables for house price trends since 1975⁵.

We assume in our baseline scenario that average real earnings growth will pick up over time, reaching 2.4% per annum by 2020⁶. Credit conditions, having improved slightly last year, are expected to stabilise with banks remaining cautious and new affordability checks introduced by the FCA. Our gross mortgage lending assumption therefore sees only modest growth. We also base mortgage rate expectations on the OBR's latest projections, which assume only very gradual rises in average interest rates up to 2020. Finally, we assume that the housing stock grows gradually in each year, at a similar pace to the preceding five years.

Under this baseline scenario, UK house prices are projected to increase by 5.3% on average in nominal terms this year. Annual house price inflation is then expected to remain relatively stable before rising slightly to 5.7% in 2020. We expect house prices growth to outstrip the growth in average earnings each year, as improving credit conditions and constrained supply continue to support prices. This will put further pressure on affordability levels over time, as will the assumed gradual rise in mortgage rates.

Figure 3.8. UK house price inflation scenarios (% per annum)



Source: PwC analysis

Table 3.1: UK house price inflation scenarios (% per annum)

Year	Baseline	High	Low
2014 Actual	10.0%	10.0%	10.0%
2015	5.3%	6.7%	3.1%
2016	5.3%	6.8%	3.0%
2017 - 2020 Average	5.4%	7.4%	2.6%

Source: PwC analysis using ONS house price data

Table 3.2: UK average house price scenarios (£000s)

Year	Baseline	High	Low
2014 Actual	265	265	265
2015	279	283	271
2016	294	302	273
2020	363	401	311

Source: PwC analysis using ONS house price data

Under the baseline scenario, our analysis suggests that the average property in the UK could be worth around £279,000 in 2015, rising to around £360,000 by 2020.

As projecting house prices always involves significant uncertainties, we also consider alternative high and low scenarios, as shown in Figure 3.8 and Tables 3.1 and 3.2 above. Our model is based on long-term fundamentals and

therefore excludes some short-term volatilities that are impossible to predict with any accuracy.

Our **high scenario** reflects a more buoyant macroeconomic environment. It assumes a stronger growth in credit conditions, accompanied by tighter monetary policy. Employment and earnings assumptions are also more optimistic, with real earnings growth

⁵ Further details are provided in the technical annex at the end of this article.

⁶ Based on OBR projections.

rising to around 3% in the medium term. Housing stock growth in this scenario is more constrained than the baseline.

Our **low scenario** reflects a more challenging macroeconomic environment. It assumes zero real earnings growth from 2016 onwards as inflation increases from record lows. Credit conditions remain relatively weak, which results in stagnant mortgage lending in the medium term in this scenario.

Under our high scenario price growth would reach around 7% this year, and then rise further to around 7.5% by 2020. In contrast, our low scenario would see average house price growth of only around 2.5% in 2017-2020.

Regional house price projections

We also develop illustrati

late to the baseline scenario set out above, but it should be borne in mind that short-term uncertainties are even greater at the regional than the national level. Table 3.3 shows our projections for 2015, 2016 and 2017-2020 average house price growth across all UK regions.

Following very strong house price growth in 2014, London is projected to see growth markedly slow to around 7% on average this year, 6.7% next year and then an average of around 5.3% from 2017 to 2020. Similar patterns of slowing growth are also expected in the East of England and the South East, as affordability measures like house price to earnings are already elevated. Those regions currently with weaker growth in recent years, including Wales, the North East and Northern Ireland, are projected to see house price growth rise somewhat over time as part of a general pattern of increased convergence across UK regions.

Table 3.3: Regional house price inflation projections, baseline scenario

Region	2014	2015P	2016P	2017-2020P average	PE ratio (2020)
Wales	5.1%	2.6%	3.5%	5.0%	6.9
Scotland	4.7%	4.9%	4.5%	5.5%	7.4
Northern Ireland	138	146	155	198	6.5
North East	4.9%	2.4%	4.1%	5.3%	6.3
North West	5.4%	3.2%	5.0%	5.4%	7.0
Yorks & Humber	5.6%	3.4%	4.0%	5.2%	7.2
East Midlands	7.1%	5.9%	5.6%	5.5%	7.5
West Midlands	5.9%	3.7%	4.6%	5.5%	7.8
East	9.4%	8.8%	6.2%	5.0%	10.2
London	17.4%	5.5%	5.2%	5.3%	14.9
South East	9.9%	7.9%	6.1%	5.5%	11.5
South West	6.8%	5.6%	5.6%	5.6%	9.7
UK	10.0%	5.3%	5.3%	5.4%	9.1

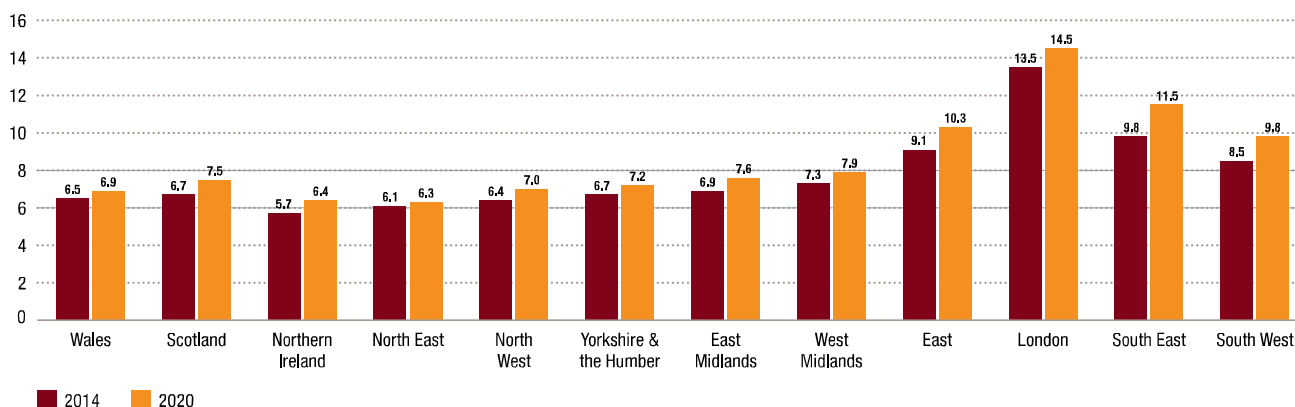
Source: ONS for 2014, PwC main scenario projection for 2015 to 2020

Table 3.4: Regional nominal house price projections in baseline scenario (£000s)

Region	2014 (actual)	2015	2016	2020
Wales	169	173	179	218
Scotland	191	200	209	259
Northern Ireland	138	146	155	198
North East	151	155	161	198
North West	171	177	186	229
Yorks & Humber	174	180	187	230
East Midlands	184	195	205	255
West Midlands	195	202	211	261
East	277	302	320	390
London	490	518	544	670
South East	327	353	375	464
South West	243	257	272	338
UK	265	279	294	363

Source: PwC analysis

Figure 3.9. Regional average house price to individual full-time earnings ratios



Source: ONS for 2014, PwC main scenario projections for 2020

The implication of these house price growth projections for affordability are shown in figure 3.9 over. We project increasing house-price to earnings ratios for all regions by 2020. In London the price to earnings ratio has now exceeded its previous peak in 2007, but all other regions remain below previous highs.

Conclusions

House price growth is slowing down and tending to converge across UK regions. We do not expect that the double digit price growth seen in 2014 can be sustained but a more normal growth rate of just over 5% might be seen in the medium term, still implying some further rise in house price to earnings ratios as new housing supply remains constrained.

Driven by a decade of soaring house prices pre-crisis and lower loan-to-value ratios post-crisis, the value of deposits has soared, creating a barrier to first time buyers. As a result a generation of private renters has emerged and this will increasingly be the norm for the 20-39 age group. There is a rising dichotomy in the market between those own and those who rent, and

increasingly between those (mostly older) households who own outright and those who rent or have a mortgage.

In the long run, if policymakers wish to reverse these trends, a large and sustained increase in affordable housing supply would be required. This could involve further planning reform, action to address skills shortages in the housebuilding sector and enhanced financial incentives to build more homes. But cuts to social rents announced in the Budget will tend to work against this for local authorities and housing associations, while private developers may be cautious about expanding too rapidly. So we expect housing supply shortages to persist for at least the next decade. Realistically, we would therefore see the rise in Generation Rent continuing until at least 2025.

A generation of private renters has emerged and this will increasingly be the norm for the 20-39 age group

Technical appendix

Modelling methodologies

UK house price projections

Our analysis focuses on the ONS house price indices. Data from the ONS vary from those provided by Nationwide and Halifax, though broad trends tend to be similar over time. We focus on the ONS data as they cover a larger sample size, given that Nationwide and Halifax base their indices on only their own mortgage approvals.

The PwC house price model consists of two parts: a long run equilibrium

that indicates how house prices adjust back towards this equilibrium level.

In the long run, real house prices are driven by three key variables: real annual earnings, the ratio of the housing stock to the population ('supply') and a variable which reflects general credit conditions. Monetary values are deflated into real (inflation adjusted) terms using CPI.

In the short run, changes in real house prices are driven by: deviations from the long run equilibrium; changes in credit conditions; and the previous period's mortgage interest rate (cost of borrowing). The coefficients for these model variables and other summary statistics for both models are shown in the tables below.

Our long run model is estimated using ordinary least squares (OLS) econometric technique based on annual data from 1975-2014.

Regional house price projections

The regional house price projections relate to the baseline scenario set out above, but it should be borne in mind that uncertainties are even greater at the regional than the national level, so these projections can only be considered illustrative. Our regional projections are based on a regression between house price to earnings ratios and mortgage rates. The results are then normalised back to aggregate to the UK baseline estimates.

Long run model (Cointegrating equation)

Dependent variable: real house prices	No. of observations: 40	
R-squared: 0.90	Coefficient	t-statistic
Earnings (real)	19.8	9.0
Supply	-1395.4	-3.7
Credit	8718.0	1.2
Constant	309657.8	2.7

Short run model

Dependent variable: change real house prices	No. of observations: 40	
R-squared: 0.60	Coefficient	t-statistic
L.co-integrating equation residual	-0.08	-1.2
D.Credit	20151.6	4.1
D.Earnings (real)	8.1	3.3
L.Mortgage rate	-623.6	-2.4

Note: 'D' refers to the first difference of a variable (i.e., change on previous year), 'L' refers to the lagged value of a variable in the previous year.

Tenure projections

We set out the methodology underlying each of our tenure projections below.

Our social tenure is predominantly projected using demographics, namely, the relationship between the population aged 60 and over relative

to the population aged 20 to 39), new housing completions (measuring supply) and the loan-to-value ratio (LTVs) for first-time buyers (measuring credit conditions and affordability). Examples of other drivers considered were deposit to earnings ratios, gross mortgage lending and mortgage interest payments as a proportion of income. Elasticities between mortgaged tenure and each of the drivers were established by transforming the data into growth rates. These elasticities formed the basis for our projections, drawing upon ONS population projections.

We also consider the relationship between expiring mortgages and the change in owner occupied housing, particularly the impact of expiring mortgages taken out by the baby boomers cohort.

- Social tenure is projected using assumptions for the number of new social housing completions each year and the quantity of social housing sales expected per annum – making allowances for the planned extension of the right-to-buy scheme for housing association tenants.
- Drivers of mortgaged tenure were selected by analysing the statistical significance in univariate and multivariate time series models. The three strongest drivers were determined to be demographics (the proportion of

people aged 60 and over relative to the population aged 20 to 39), new housing completions (measuring supply) and the loan-to-value ratio (LTVs) for first-time buyers (measuring credit conditions and affordability). Examples of other drivers considered were deposit to earnings ratios, gross mortgage lending and mortgage interest payments as a proportion of income. Elasticities between mortgaged tenure and each of the drivers were established by transforming the data into growth rates. These elasticities formed the basis for our projections, drawing upon ONS population projections.

- Private rental tenure – the residual term produced by the projection of the other three categories above relative to total UK household projections.

We have only carried out this analysis at UK level, as we did not have ready access to sufficiently detailed data to produce reliable estimates for regional tenure trends.

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