

Appendix 5.1. Measuring changes in house prices

There are a number of widely used measures of house prices in the UK, which can give rise to different estimates of both the level of house prices and how house prices are changing over time. These reflect differences in both the underlying data and methods.

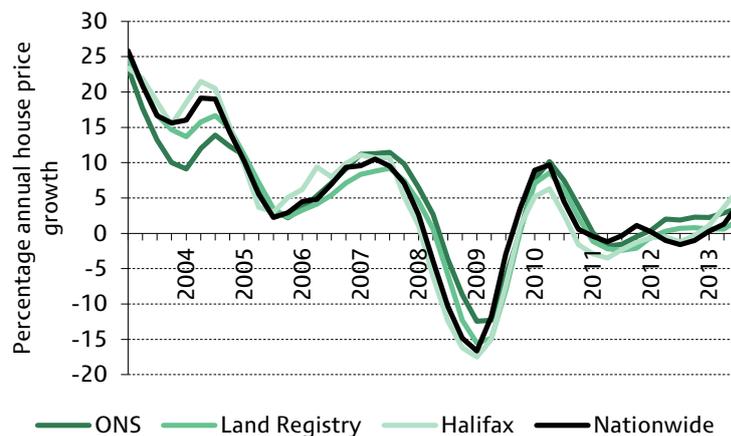
Key measures of UK house prices

There are four major measures of house prices in the UK based on mortgage and sales data: official statistics produced by the Office for National Statistics (ONS) based on UK-wide mortgage lending statistics; indices produced by Nationwide and Halifax based on the mortgage offers they each make; and the Land Registry price index, which is based on a complete register of all residential sales in England and Wales. In addition: LSL Property Services / Acadata produce a composite house price index, based primarily on Land Registry data; Rightmove.com produces an index based on advertised asking prices; and other companies such as Zoopla present estimated prices.¹

How do different measures compare?

The four major house price indices for the UK show broadly similar trends over time (see Figure 8A.1). However, they can often have significant discrepancies over shorter periods such as monthly data. Consequently, there are differences between the indices as to the extent of the recovery in house prices since 2007. For example, the estimates of how prices in London compare with their pre-recession peak range from being 8% lower (Halifax) to being 19% higher (ONS) in the third quarter of 2013.

Figure 8A.1. Annual house price growth: comparison of ONS, Land Registry, Halifax and Nationwide estimates, United Kingdom, quarterly



Source: Table 17 of ONS 'House price index (HPI) reference tables', <http://www.ons.gov.uk/ons/rel/hpi/house-price-index/november-2013/rft-monthly-and-qtly-november-13.xls>

¹ For a detailed discussion, see Government Statistical Service, *National Statistician's Review of Official Housing Market Statistics*, 2012, <http://www.statisticsauthority.gov.uk/national-statistician/ns-reports--reviews-and-guidance/national-statistician-s-reviews/national-statistician-s-review-of-official-housing-market-statistics.pdf> and ONS, *Official House Price Statistics Explained*, 2013, <http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/hpi/index.html>.

Differences in price levels are also pronounced: the 'average' house price in the UK in 2013Q3 was £246,000 according to ONS, compared with £171,000 according to the average of Nationwide and Halifax.

What explains the difference?

Different samples

The Land Registry database is the largest, being based on a complete record of all residential property transactions in England and Wales, including cash and mortgage sales. The other indices only look at mortgage transactions: the ONS one is based on a large, representative sample of mortgage lending across the UK, while Nationwide and Halifax base their measures on their own mortgage approvals, adjusted in order to represent the UK housing market overall. These indices implicitly assume that prices move in the same way for houses bought with cash and for those bought with a mortgage. While this may be a reasonable assumption, to our knowledge there is no published data comparing cash and mortgage house purchases.² In addition, these indices only measure residential property transactions, thereby excluding buy-to-let purchases.

The indices also differ as to when in the process of the transaction the price is measured: the Land Registry and ONS measures are based on actual property transactions, whereas the Nationwide and Halifax ones are based on valuations for mortgage approvals, even though some of these sales will not take place. There can be a time lag of up to a few months between an offer being accepted (Nationwide and Halifax), a mortgage being completed (ONS) and a property being registered with the Land Registry. As a result, although the Nationwide and Halifax measures are based on provisional data – i.e. transactions that have not been completed – they are more timely.

Different methods

The most important methodological difference between house price measures relates to the way in which they distinguish changes in prices from changes in the mix of houses sold from period to period (in terms of location, size and other characteristics). For example, suppose that more expensive properties were sold in a given month than in the previous month, but that the price of each house remained the same. Taking a simple average of the prices would suggest an increase in average prices, even though the prices had in fact remained the same.

Most indices are therefore 'mix adjusted' to account for changes in the composition of houses sold, thereby isolating changes in prices. The most common approach, followed by the ONS, Nationwide and Halifax, decomposes the value of a house into the value of certain characteristics: the number of beds, whether there is a garden, the location etc. An average price is then calculated for a property with each combination of characteristics. These averages are then combined into an overall average house price holding the mix of characteristics constant. The Land Registry index measures price movements only for properties that have been sold more than once since the data were first collected in 1995. If the characteristics of a property have remained the same between sales, then any increase in price reflects a genuine increase in the price of housing. In reality, there is no

² However, it is worth noting that the volume of cash purchases has held up more strongly since the recession, such that cash purchases now account for around 35% of housing transactions, up from around 20% in 2006. See Council of Mortgage Lenders, 'A million property transactions: what does it mean for the mortgage market?', 21 November 2013, <http://www.cml.org.uk/cml/publications/newsandviews/150/585>.

reliable data on home improvements or deterioration over time in the UK, so the Land Registry does not control for the impact such changes might have on prices.³

Different definitions of the 'average' house

Most indices are based on an 'average' house price, which serves as an indicator of overall trends. Indices differ, however, in how they define the 'average' or 'typical' house. The fact that different indices track the price of different 'average' or 'typical' houses helps to explain both differences in price levels and differences in growth rates, because the prices of different 'types' of house will grow differently over time.

The ONS defines the 'average' price by combining all house types in proportion to the frequency with which properties with those characteristics are actually sold. These frequencies are adjusted annually. As a result, the ONS measure provides a more accurate snapshot of the average property being sold in the UK. However, it is sensitive to changes in the type of property being sold over longer periods. One reason why the ONS measure for the UK is currently significantly higher than other indices is the strength of the 'prime' London market during the recovery. Nationwide follows a similar approach, tracking the price of a 'typical' house, the characteristics of which are revised every two years, based on internal and external transactions data. Halifax, on the other hand, tracks the price of houses possessing the same characteristics as those bought in a single base year (1983). This approach is similar to that followed by the Land Registry, which applies its estimate of house price growth to a measure of the 'average' house taken in April 2000.⁴

³ See 'Land Registry House Price Index', letter from Malcolm Dawson (Chief Executive of Land Registry) to Sir Michael Scholar (Chair of the UK Statistics Authority), 30 March 2012, <http://www.statisticsauthority.gov.uk/reports---correspondence/correspondence/letter-from-malcolm-dawson-to-sir-michael-scholar-300312.pdf>.

⁴ ONS, *Official House Price Statistics Explained*, 2013, <http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/hpi/index.html>; direct correspondence with Nationwide; M. Fleming and J. Nellis, 'The Halifax House Price Index: technical details', Halifax, 2014, <http://www.lloydsbankinggroup.com/media/word/HPI/13.08.09TechDetails.doc>; Land Registry, 'About the House Price Index', <http://www.landregistry.gov.uk/public/house-prices-and-sales/about-hpi>.