

HomeCo Asking Price Index (API)

Technical calculation document

Technical approach

The *Home.co.uk Asking Price Index (API)* represents the most advanced forward looking housing market indicator for UK residential sales listings. The index measures changes in the prices asked by house sellers across the nation. The measure is an indicator of what might happen to actual selling prices in five months time.

The *Home.co.uk Asking Price Index (API)* is calculated monthly using a dataset of more than 500,000 UK properties for sale found through the Home.co.uk Property Search Engine. This figure represents the majority of the property for sale on the open market in the UK at any given time. Properties above £1m and below £20k are excluded from the calculations. Calculations are performed using Mix-Adjustment. Mix adjustment improves upon the reliability of an index calculated using simple averages by applying weightings to the constituents of the averages

In the calculations of the *Home.co.uk Asking Price Index (API)* a matrix was constructed dividing asking price observations into groups of price observations depending on various property characteristics. The characteristics used were:

- Property Type (i.e. Detached, Semi-Detached, Terrace or Flat)
- Region (e.g. governmental office regions)

The first step involved in the calculation of the *Home.co.uk Asking Price Index (API)* was to calculate the weights for the groups of asking price observations, these weights are the fixed proportions derived from the Survey of English Housing 2003/2004 – published in March 2006.

The second step involved calculating the average house price for each group. As an average we used the arithmetic mean. Before calculating the average an adjustments was made for the asymmetric distributions of house prices. This adjustment is a process called 'Winsorising' the dataset. Winsorising is a common statistical process for the treatment of long-tailed distributions such as the distribution of house prices. The aim is to achieve a robust, low R^2 error estimate of the mean. The exclusion of all property transactions above £1 million has a similar affect as Winsorising.

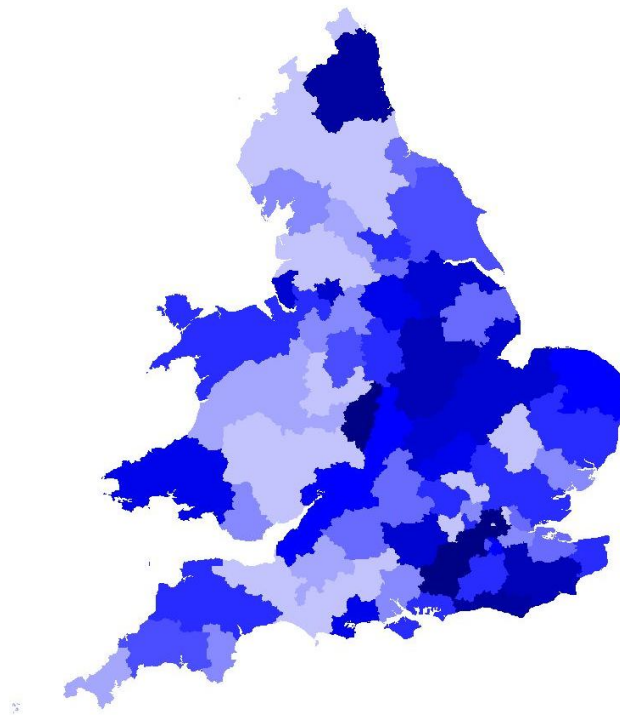
The final step involves the calculating of the aggregated index. This is done by calculating a weighted average using the weights and the values for each of the groups. This is done for each of the months in question. Rebasing the initial period to 100 delivers a Laspeyres type index with the starting value of 100.

Technical Considerations

Mix-adjusting is the most applicable method for index construction using Asking Price data. Asking prices are typically observable around 5 months before actual sales prices are observable.

Heat Map of Dataset Distribution

The image below illustrates the distribution spread of the data contained within the Home.co.uk property asking price dataset. The darker blue areas indicate greater concentrations of properties for sale in a particular postcode area. The graphic illustrates the relatively even distribution of the asking price data.



Indices are reported along regional boundaries as per Office of National Statistics Government Office Regions. (see <http://www.statistics.gov.uk/geography/gor.asp>)