

GB – United Kingdom

Before 2012, the Department of Communities and Local Government produced a nationwide house price index for all types of dwellings, new and existing (Table 590, 592). In 2012 the production of the house price series was transferred to the Office of National Statistics (ONS). Nationwide refers to the United Kingdom of Great Britain and Northern Ireland. The index was constructed using the mix-adjusted method. Dwellings were grouped based on age, location, and type of dwelling. The average price for each group was determined by completed mortgages. The groups were then weighted according to the number of transactions over the previous three years, using a Laspeyres index. Sales data was gathered from the Land Registry. Weights were recalculated every year, so the index was annually chained linked.

Data was collected from banks and building societies through the Regulated Mortgage Survey. Prior to 1992, survey participants only included building societies. This was extended as larger building societies converted into banks. The ONS index represents all completed mortgages of survey participants. Prior to 2005, participants did not report 100% of mortgage completions. A 5% representative sample was submitted until 2001. Select lenders then started reporting all completions, which were incorporated in the index starting in 2003. Starting with the second quarter of 2002, the quarterly index was calculated from the average of the monthly mix-adjusted series. Data is reported quarterly from the second quarter of 1968 through the first quarter of 2016.

The source of the current house price data has changed. The new series is based on the “UK House Price Index (HPI),” starting with the April 2016 release. The UK HPI series combined and came to replace the previous house price indices that were separately published by the Land Registry and the ONS with data going back to 2005. The UK HPI is jointly produced by the Land Registry, Land and Property Services Northern Ireland, ONS, and Registers of Scotland. The new monthly HPI is hedonic and mix-adjusted, using additional property attributes data, such as floor space of a property, that make it more consistent with international best practices as defined by Eurostat. This affects the 2016 second quarter release and all subsequent updates.

To extend the UK HPI data from 2005 back to 1975, we splice the current HPI with growth rates of the previous ONS series that goes back to 1968. None of the house price series are seasonally-adjusted by the source. We seasonally-adjust the series using the BSTS model and re-base it to 2005=100. We deflate this house price series using the Personal Consumption Expenditure (PCE) deflator obtained from the OECD Economic Outlook database.

We complete the United Kingdom data by including personal disposable income (PDI) series reported on a *per capita* basis. We created a net household disposable income series using the gross household disposable income series from the OECD Economic Outlook database less an extended consumption of fixed capital from the IMF International Financial Statistics (IFS) database. The working age population series was obtained from the OECD Economic Outlook database. The source of the current household disposable income and working age population data changed, affecting the PDI *per capita* series in the 2012 first quarter update and all subsequent updates. Gross disposable income for households is obtained now directly from the United Kingdom’s Office of National Statistics. The series is reported at a quarterly frequency

beginning in the first quarter of 1955. Consumption of fixed capital for households was also obtained from the United Kingdom's Office of National Statistics. This series is annual and begins in 1948. We interpolated this annual series to a quarterly frequency, using the quadratic-match average method. We subtracted the interpolated consumption of fixed capital series from the gross disposable income series to create PDI.

Since the consumption of fixed capital series was released annually, at least four quarters would elapse if we waited for the official data publication. To avoid this lag and make the public release of the data timelier, we nowcasted the annual series one year ahead using the BSTS model to add one extra observation that could be jointly interpolated. The quarterly estimates obtained using interpolated nowcasts were subsequently replaced as the official annual data became publicly available.

The source of the consumption of fixed capital data has changed again. Starting in 1999, the PDI series is constructed using quarterly consumption of fixed capital data from Eurostat. This affects the 2014 second quarter release and all subsequent updates. We use the interpolated consumption of fixed capital series from the ONS to extend the data back to 1975.

Current working age population data is now obtained from the OECD Main Economic Indicators database. It is reported at a quarterly frequency and begins in the second quarter of 1999. We use the quarterly growth rates of the discontinued working age population series from the OECD Outlook 90 database to extend the series to the first quarter of 1975. We divide the net PDI by the quarterly working-age population series, producing a nominal PDI series in *per capita* terms. We use the PCE deflator to express the series in real terms. Both nominal and real PDI measures are indexed to 2005=100.

Information Resources:

UK House Price Index Data

<https://www.gov.uk/government/collections/uk-house-price-index-reports>

<https://www.gov.uk/government/publications/about-the-uk-house-price-index/about-the-uk-house-price-index>

<https://www.ons.gov.uk/economy/inflationandpriceindices/articles/explainingtheimpactofthenewukhousepriceindex/may2016>

<https://www.ons.gov.uk/economy/inflationandpriceindices/methodologies/developmentofasingleofficialhousepriceindex>

Department of Communities and Local Government Data

<https://www.gov.uk/housing-market-and-house-price-information-notes-and-definitions>

Office for National Statistics (ONS) Data

<http://www.ons.gov.uk/ons/datasets-and-tables/index.html>

Eurostat Data

http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database