Change of reference period for the Northern Ireland House Price Index

The NI House Price index is a tool that simplifies the measurement of movements in a numerical house price series. The series runs from January to March (Q1) 2005 to the most recent quarter, currently October – December (Q4) 2024.

Movements of the index from one date to another can be expressed as changes in index points (simply, the difference between index values), but it is more useful to express the movements as percent changes. This is because index points are affected by the level of the index in relation to its reference period, while percent changes are not.

What is a reference period?

Indices that look at changes over time need a reference period, this is the period of time that is used to compare price changes over time; it's like a benchmark where the index level is set to equal 100 and then measure how much prices have increased or decreased compared to that point, making it easier to understand inflation trends.

Between January to March (Q1) 2016 and July to September (Q3) 2024 the reference period for the NI House Price Index was Q1 2015 and the index was set to equal 100. The change in prices for each quarter in the series was calculated compared to Q1 2015.

For example, the NI House Price Index published in November 2024 showing the series between Q1 2005 to Q3 2024 reported the index value as 171.8, in other words prices were 71.8% higher than prices in Q1 2015.

The reported statistics for Q3 2024, referenced to Q1 2015 = 100 were:

Sale Quarter	NI House Price Index	NI House Standardised Price	Quarterly Change	Annual Change
Q3 2024	171.8	£190,553	2.8%	6.2%

Why change the reference period?

From time to time, it is necessary to change the reference period to a more recent period, to ensure that the index better reflects current trends in the property market.

The NI House Price Index Quality and Methodology Information states that "to ensure the base set of transactions remains representative, the reference period for the price series will be updated every five years, and the whole of the average price series rescaled to align with the new reference period.

Due to the COVID-19 pandemic in 2020 and the changes to Stamp Duty Land Taxes across the UK in 2021, it was decided that using transactions from 2020 or 2021 as the new reference for average prices would not be appropriate, because the housing market was under exceptional conditions and would not reflect a 'normal' period.

The NI House Price Index reference period was changed from Q1 2015 to Q1 2023 in the February 2025 report which shows the price series from January to March (Q1) 2005 to October to December (Q4) 2024.

The index value at Q1 2023 was set to 100 and the index series was re-calculated to reflect the change each quarter in comparison to Q1 2023.

How to change a reference period?

The conversion of an index series from one index reference period to another involves calculating a conversion factor using the ratio between the two series of index numbers.

The new reference period for the NI HPI is Q1 2023, so all index values in the series between Q1 2005 and Q4 2024 have been divided by the chain linked index value at Q1 2023 (153.4) and multiplied by 100. More information on the calculation of the chain linked index is available in the <u>LPS/ NISRA NI House Price Index methodology report</u>.

For example, to calculate the index value referenced to Q1 2023 for Q3 2024:

divide the chain linked index value for Q3 2024 (170.5) by the chain linked value for Q1 2023 (153.4) and multiply by 100

$$= \left(\frac{170.5}{153.4}\right) x \ 100$$

the index value for Q3 2024 when the series is referenced to Q1 2023 = 111.1, in other words prices in Q3 2024 were 11.1% higher than prices in Q1 2023.

To calculate the standardized price referenced to Q1 2023 for Q3 2024:

Multiply the predicted price from the regression model for Q1 2023 (£162,479) by the newly re-referenced index value for Q3 2024 (111.1)

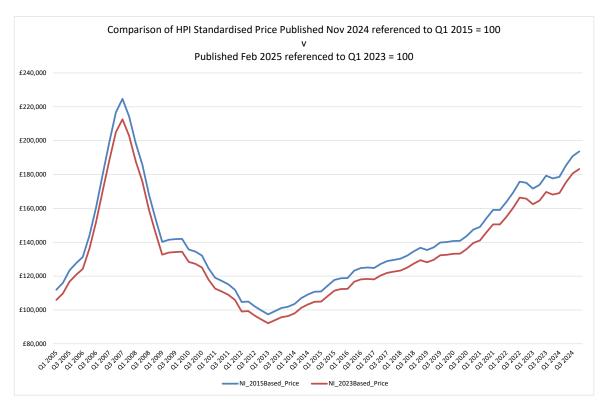
$$= \frac{£162479 \times 111.1}{100}$$
$$= £180594$$

The statistics reported for Q3 2024, following the change in reference period to Q1 2023 = 100 are:

Sale Quarter	NI House Price Index	NI House Standardised Price	Quarterly Change	Annual Change
Q3 2024	111.1	£180,594	3.0%	6.4%

Re-referencing the NI HPI does not affect the published inflation rates (quarterly or annual), so the growth rate of the index has not been affected. Slight changes to the quarterly and annual change seen in the example are related to normal quarterly revisions.

However, the index value and average price levels will be shifted up or down to align with the new reference period average price. The re-referenced NI HPI price series will follow the same trend, but the example and the charts below show the price levels have been scaled down.



As a result of the change in reference period from Q1 2015 to Q1 2023 the NI HPI average price levels have been scaled down by 5.7%.

This downward shift is driven by a decrease in the size (habitable space) of properties sold in 2022 compared to those sold in 2014, and an increase in the proportions of apartments, terrace properties, and publicly built properties sold in 2022 compared to those sold in 2014.

Q1 2015 price was based on sales during 2014 and Q1 2023 price was based on sales in 2022, therefore changes in the characteristics of sales in these years drive the differences in price when changing the reference period.

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