Revising the weight of Owner Occupiers' Housing in CPIH

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1. Introduction

Recent work by the Office for National Statistics (ONS) and the Valuation Office Agency (VOA) resulted in improvements to the rental equivalence measure of owner occupiers’ housing costs (OOH) in CPIH\(^1\). The revision to the OOH component in CPIH has presented ONS with a one-time opportunity to revise the OOH weight in CPIH so that it is aligned with historical National Accounts estimates and reflects, as far as possible, planned changes to the methodology for measuring imputed rents that will be introduced in Blue Book 2016.

The revised CPIH series, showing the impact of both improvements to the OOH series and updating the OOH weights historically (to reflect the Blue Book 2016 changes), are presented within this article. Completing this work, the ONS will revise the OOH component within CPIH and the CPIH itself as part of the 2015 annual update in March 2015. Following this, the approach to revisions in CPIH will revert to that which is usual for consumer price indices and follow the procedures as set out in the CPIH revisions policy\(^2\).

2. Background

2.1 Impact of OOH revisions on the UK National Accounts

Estimates of household expenditure on actual rentals and imputed rentals for owner occupiers’ are both included in the National Accounts. Under current methodology, estimates of the volume of these are produced first, and then inflated using an appropriate index to give a current price (value) estimate. From 2011 onwards\(^3\) the index used has been the CPIH index for actual and owner-occupied rentals.

The revision to the OOH index\(^4\) will therefore directly affect the relevant household expenditure current price estimates in the National Accounts, but not the volume estimates. Revisions to the OOH component in CPIH will be taken on as part of the Blue Book 2015 process, with publication


due in October 2015\textsuperscript{5}. Further improvements to the methodology for actual and imputed rentals will be introduced in Blue Book 2016 (BB16). More information on these changes will be made available at a later date.

\subsection*{2.2 Impact of methodology revisions to imputed rents on OOH weight}

When CPIH was launched in early 2013, weights for the OOH component were calculated using the Blue Book 2012 estimates for expenditure on imputed rents, consistent with the standard method for calculating weights. In Blue Book 2013, a revision to the methodology used to calculate imputed rents in the UK National Accounts\textsuperscript{6} resulted in a step change upward in the weights used for OOH in CPIH, increasing it from a weight of 12.2 per cent in 2013 to 15.6 per cent in 2014.

Further improvements to the methodology for actual and imputed rentals in the National Accounts will be introduced in BB16. The changes will result in further upward revisions in the expenditure on imputed rents, which will in turn increase the OOH weight in CPIH, hence the decision to align the OOH weights with National Accounts estimates and planned changes to be introduced in BB16.

Weights are not usually revised in consumer price inflation statistics as this would lead to revisions to the published indices. The value of updating weights when new information becomes available is, in general, outweighed by user need for consistency, particularly when the index is used for indexation. However, CPIH is a relatively new consumer price inflation statistic and its use is still limited. In addition, CPIH has reverted to experimental status and revisions to the OOH price component will be introduced in March 2015. Therefore ONS will use this opportunity also to make retrospective changes to the OOH weight to align it historically and to reflect planned changes to the measurement of imputed rents in BB16.

The revised weights are presented in figure 2.1 below, and illustrate that the planned BB16 changes would leave historic OOH weights significantly out of line with National Accounts, hence the decision to align the weight for this item only.

\footnote{http://www.ons.gov.uk/ons/media-centre/statements/blue-and-pink-books-2015-statement/index.html}

\footnote{Prior to Blue Book 2013, owner occupiers’ imputed rentals in the UK National Accounts were presented with owner occupiers’ estimated expenditure on maintenance and repairs removed. To ensure full compliance with ESA95, in Blue Book 2013, a revised methodology was implemented so that imputed rentals are now presented on a gross basis (that is, including the estimation of maintenance and repairs which was previously deducted). Further detail is available here: http://www.ons.gov.uk/ons/rel/consumer-trends/consumer-trends/q1-2013/blue-book-2013--improvements-to-household-expenditure-estimates.html#tab-Improvements-to-sources-and-methods}
3. Impact on CPIH

This section presents the impact on CPIH of both revisions to the OOH index and weight so that it is in line with National Accounts estimates.

3.1 Revising OOH index on CPIH

As noted in a previous article\(^7\), following improvements made to the OOH index, the annual average growth rate of OOH (for the period from 2005 to 2014) has been revised upwards by 0.6 percentage points to 1.5 per cent, presented in figure 3.1.

Figure 3.1: Previously published against revised OOH, 12-month growth rate

Figure 2.1 showed that OOH accounts for approximately 11 per cent of CPIH weight over the period 2005-2014. The impact of this 0.6 percentage point upward revision to the annual average growth in OOH results is a revision of up to 0.2 percentage points in CPIH growth, but more often 0.1 percentage points as presented in figure 3.2.

Figure 3.2: CPIH-Previously published against revised OOH index, 12-month growth rate

3.2 Revising OOH weight on CPIH

Revising the OOH weight in line with National Accounts estimates increases the OOH weight in CPIH, over the period 2005-2014, from approximately 11 to 19 per cent. As presented in figure 3.3, this difference is more pronounced in earlier years.
The impact of this revision to the weights is that the growth of the OOH component subsequently has a greater impact on CPIH. Presented below, figure 3.4 shows the combined impact on CPIH of both revising the OOH series and updating the OOH weight.

Figure 3.3: OOH weight in CPIH

Figure 3.4: CPIH - Previously published against revised OOH index and weight, 12-month growth rate
Revision to both the OOH series and weight results in revisions of up to 0.5 percentage points, downwards on CPIH annual growth, but more often 0.2 or 0.1 percentage points in both directions. The downward revisions to CPIH from October 2009 are driven by the OOH component which falls into greater negative inflation. This is perhaps better illustrated in figure 3.5 by comparing the growth of CPI to that of OOH, the component that differs between CPI and CPIH.

**Figure 3.5: CPI against OOH, 12 month growth rate**

![Graph](image)

Increasing the weight of the OOH component means that the OOH growth has a larger contribution to the overall growth in CPIH. In simple terms, by increasing the weight of the OOH component, if the growth in this component is above that of others (broadly CPI) that make up the CPIH, the impact is to increase the CPIH growth. Conversely, when the growth in OOH is below that of the other components the impact is to decrease the CPIH growth.

Annual growth of the new CPIH series now differs more against that of CPI as presented in figure 3.6, with the greatest difference between 2010 and 2011, driven by the OOH component falling into negative inflation.
4. Next Steps

The revised series, presented within this article, result in a more accurate OOH index whose growth is now more responsive to market conditions. The improvements to the OOH component in CPIH and revising the OOH weights in line with National Accounts estimates will be introduced as part of the 2015 annual update of consumer price indices published on 24 March 2015, with the historical series recalculated back to 2005. Following the publication, ONS will work with the UK Statistics Authority’s Monitoring and Assessment team to initiate the process for assessment of CPIH as a National Statistic.