

Abstract: Quality Adjustment Review of UK Consumer Price Statistics

The Office for National Statistics (ONS) has been conducting a thorough review of the quality adjustment methods currently used in national consumer price indices. The reviews aims are: assessing the current state of quality adjustment in UK consumer price statistics, making comparisons with other countries, assessing whether current methods are appropriate and developing a method for monitoring the number of non-comparable replacements for each category of good. This work follows the recommendations of an independent review conducted by the UK Statistics Authority in January 2015.

To monitor the impact of quality adjustment on UK consumer price indices, ONS has used Implicit Quality Indices (IQIs) which essentially show the percentage difference between a Standard Reference Index (a price index where no quality adjustment has been applied) and an index which has been quality adjusted. The main method of quality adjustment used by ONS is Class Mean Imputation, sometimes known as Bridged Overlap, which involves imputing a new base price, calculated using the price movement of similar products, each time a replacement is deemed non-comparable. ONS has therefore developed three methods for monitoring the number of non-comparable replacements in each category's sample. These methods involve assessing the number of non-comparable markers relative to the category's sample size and calculating the proportion of a category's sample that has an imputed base price.

These methods, as well as the IQIs, have been tested on all food and telecom categories from 2013-2017 with certain categories, particularly seasonal fruit, digital cameras and our four hedonically adjusted categories continually being flagged for investigation. Between them, the methods provide us with a dashboard of indicators that we can use to evaluate the state of quality adjustment in our consumer price indices and identify areas for improvement.