An independent review of UK consumer prices statistics was carried out in January 2015 and made a series of recommendations regarding quality adjustment. These include:

- Assessing the suitability of current quality adjustment methods and to introduce regular monitoring of their impact on consumer price statistics.
- Analysing how often non-comparable replacements occur for each item in the basket and investigating those items where this is frequent.
- Collaborating with other NSIs to develop an informed international approach.

To monitor the number of non-comparable replacements in each item’s sample, 3 methods have been used:

- Method 1 is to calculate the total number of non-comparable markers as a proportion of the total sample size.
- Method 2 involves working out the total percentage of imputation in the sample (the proportion of quotes in the sample that have an imputed base price as a result of quality adjustment). This is done for a whole year as one.
- In general, it is quite unusual to see an item have a method 1 percentage that exceeds 5%, a method 2 percentage that exceeds 10% and a method 3 percentage that exceeds 20% and so items that exceed these thresholds may require investigation. Certain digital goods require a higher threshold, however, as the rate of comparable replacements in each item’s sample, 3

One final approach would be to combine the IQI and Non-Quality Adjustment Indices (IQIs), which have been used to help identify the item level indices that are being impacted the most by our quality adjustment methods with the intention of flagging these items for investigation.

If the value of the IQI = 100 then the adjusted and unadjusted indices are comparable. These scores outside this IQI range, at least going by the testing results, are essentially outliers. The majority of items in the basket lie within the 5% range though certain seasonal items and digital goods have values that fall well outside this range.

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There are a few different ways in which items could be flagged for investigation using the IQI and Non-comparable indicator results.

One option would be to simply apply limits. Eg. 5% for food items and 10% for telecoms as items outside this IQI range, at least going by the testing results, are essentially outliers.

Another approach would be to rank all items by their most extreme value and flag the top x amount where x is the number of items we can realistically investigate with current resources.

Finally, one method would be to combine the IQI and Non-Quality Adjustment Indices into a single scoring system which also takes into account the item’s weight within the basket. Each item will obtain a separate score based on its most extreme IQI value and another score based on the number of non-comparable indicators it would get flagged by if thresholds were to be applied. These scores are then added together and then multiplied by the item’s weight. This ensures that if the total of an item’s IQI score and non-comparable score is 0 then the item will not get flagged simply because of its weight.