ROYAL STATISTICAL SOCIETY
DATA | EVIDENCE | DECISIONS

# The Retail Prices Index (RPI)

## Background

In 2010, the ONS changed the way it collected clothing prices with the unforeseen effect that the gap between RPI and the Consumer Price Index (CPI) widened. The subsequent investigations by the Office for National Statistics led to a public consultation on options for improving the RPI. In response to that, in 2013, the National Statistician of the time concluded that the formula used to produce the RPI did not meet international standards, recommended that a new index be published (RPIJ), but that the formula in the RPI should remain unchanged[1]. Later that year the RPI lost its 'National Statistics' status. The Johnson Review[2] of 2015 concluded that the RPI should remain only as a legacy measure, and that government should discourage its use. It remains, however, widely used.

The extent to which the RPI is embedded in countless contracts, as well as the long-standing nature of many such contracts, means that it will inevitably be used for decades to come.

## Introduction

Following the recent outcome of court cases concerning the ability of pension funds to switch their inflation link from RPI to the CPI, and the Government's decision not to provide a legal over-ride for the use of RPI in pension schemes, there was increased publicity around the RPI's use and status. In June 2018, the House of Lords Economic Affairs Select Committee launched an inquiry[3] into the use of the RPI. In the same month, a discussion meeting was organised at the RSS in response to a paper produced by the ONS[4] in March. Those with particular expertise in RPI were invited to contribute. 'The Future of the RPI' event[5] brought together many distinguished and expert speakers, including the UK National Statistician John Pullinger, as well as users. It represented a

[1] https://www.ons.gov.uk/ons/about-ons/get-involved/consultations/archived-consultations/2012/national-statistician-s-consultation-on-options-for-improving-the-retail-prices-index/national-statisticians-response.pdf
[2] https://www.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-ukconsumerpricestatisticsarevie_tcm97-44345.pdf
[3] https://www.parliament.uk/business/committees/committees-a-z/lords-select/economic-affairs-committee/inquiries/parliament-2017/the-use-of-rpi/
[4] https://www.ons.gov.uk/economy/inflationandpriceindices/articles/shortcomingsoftheretailpricesindexasameasureofinflation/2018-03-08
[5] https://www.statslife.org.uk/features/3845-meeting-report-the-future-of-the-rpi

broad spectrum of opinions. These issues were also raised at a session of the RSS conference in September 2018.

This paper sets out our current position on RPI.

1. Consumer price indices are used for many different purposes and no one index can meet the whole variety of needs. In particular, there are two different primary purposes which require different indices:

a. macroeconomic needs, such as inflation targeting and international comparison, for which the CPI and similar indices were designed; and

b. understanding how inflation affects households, which was the RPI's original aim.

2. In late 2016 and early 2017, following the review led by Paul Johnson into UK Consumer Price Statistics (published in January 2015), and a subsequent public consultation period, the National Statistician (John Pullinger) set out a vision for the future which consisted of three use cases for consumer prices indices:

a. indices developed on macroeconomic principles (CPI and CPIH);

b. indices reflecting household experience (the Household Costs Index, HCI, is currently being developed); and

c. the RPI as a legacy index.

The RSS continues to fully support this vision that three families of measures need to be maintained on an equal basis.

3. As long as they continue to be developed satisfactorily, we believe the HCIs could ultimately, subject to suitable investment and consultation by the ONS, be used instead of the RPI when replacements are needed because, like the RPI, they are intended to provide a measure of costs as experienced by households. However, HCIs will not be subject to the limitations and constraints presently affecting the RPI and they can more easily be developed with current and future needs in mind.

4. In contrast, CPI and, by extension, CIPH were developed by the EU for macroeconomic purposes. Their constructions differ in a number of ways from an index aimed at measuring inflation as experienced by households. They should not, therefore, be regarded as substitutes for the RPI.

5. The extent to which the RPI is embedded in countless contracts, as well as the long-standing nature of many such contracts, means that it will inevitably be used for decades to come - barring complex (and, almost certainly, highly controversial) legal overrides. The RSS has long argued that it should be managed as well as possible. In 2013, for example,

while we supported the then National Statistician's decision not to change the use of the Carli approach in the RPI, we did not agree with the decision to limit changes to (a decision that has subsequently and misleadingly been referred to as a 'freeze') the compilation of the RPI to routine matters (albeit 'routine' being poorly defined). Indeed, as the 2007 Statistics Act requires UKSA to "maintain" the RPI, the ONS is obliged to keep it fit for purpose.

6. The RPI is not perfect - no index is. However, a number of the criticisms made of it reflect a misunderstanding of its purpose and are implicitly based on the erroneous assumption that it should follow in full the economic principles suitable for indices such as CPI and CPIH.

7. Much of the blame for the widening of the formula effect since 2010 has been laid at the door of the Carli index. However, it is a fundamental misjudgement to blame Carli solely for this, or to assume that the formula effect is due entirely to 'errors' by the RPI. All index formulae will misbehave in certain circumstances when presented with raw data that has certain features. In particular, some clothing prices are very difficult to measure satisfactorily: indeed, none of the index formulae used can cope properly with the immense variation in prices as currently measured for some items. Before 2010, the RPI almost certainly under-estimated the growth in clothing prices - but the CPI, with its Jevons formula, under-estimated it to a far greater extent. Since 2010, the RPI has clearly over-estimated the rise in clothing prices; the CPI clothing index looks more plausible but, due to the nature of the Jevons index, it very probably under-estimates it to a certain extent. The difference between the pre- and post-2010 circumstances was raw data, not the formulae which have been unchanged for decades.

8. In 2011, the ONS started to carry out a comprehensive investigation into the formula effect and into the measurement of clothing prices. After the 2013 decision not to change the Carli formula and to limit changes to the compilation of the RPI to routine matters, this research was downgraded. The RSS argued, at the time, that this work - notably into the raw prices collected - should have remained a high priority. Some new research is currently being carried out into clothing prices but a full assessment of the impact of different formulae on different data, and how/when they should be used, remains lacking. Such research is badly needed. We strongly encourage ONS to continue to engage with and take account of the views and needs of users, in line with the requirements of the Code of Practice for Statistics.

9. Research will take time to carry out and may or may not lead to a successful conclusion. Similarly, the current investigations of scanner data, which could ultimately enable the use of weighted index formulae, obviating the need to use indices such as Carli and Jevons, have been slow and patchy yet remain important.

10. Pending such conclusions, therefore, the possibility of pragmatic adjustments should be investigated and applied either to RPI alone or, ideally, to all indices to deal with the clothing problem. One possibility would be to exclude some or all of the fashion items from the clothing component of the indices, as suggested by Erwin Diewert in 2012. Other

possibilities include representing clothing strictly by items which are not subject to fashion swings or, as a last resort, using Jevons in the RPI simply for these items.

11. It should be clearly announced that such changes will be strictly limited in order to maintain the character and essential nature of the RPI. Once done, the RPI should be managed normally and pragmatically in the future with clear regard to its purpose and character, and as required by law. We believe such an approach, well explained and signalled, would be acceptable to financial markets. The possibility of ONS investigating and implementing such changes was also raised at RSS' conference.

12. Finally, given the RPI and CPI were compiled for different purposes, it is to be expected that there are times when it is best to use one measure rather than the other. Also given the legacy of historical practices, some uses look illogical. Yet their current use by government, and the justifications given for a use, can be arbitrary and appear unprincipled, such as the Treasury's use of the (generally higher) RPI when raising money (rail fares and student loan repayments) and the (generally lower) CPI when making payments (pensions and benefits), when the most appropriate inflation measure ought always to be used. The RSS is one of the organisations to have criticised successive governments' practice in this regard.

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