ROYAL STATISTICAL SOCIETY
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RSS evidence to the Economic Affairs Committee on 'The Use of the Retail Prices Index'

1. This note provides evidence from the Royal Statistical Society (RSS) to the inquiry into 'The Use of the Retail Prices Index' (RPI) currently being conducted by the House of Lords Economic Affairs Committee.

2. The RSS is a learned society and professional body for statisticians and data analysts. We have around 9,000 members worldwide - but the majority of our membership is UK-based.

Key points

3. The RSS welcomes this important and timely inquiry by the Economic Affairs Committee. We would particularly like to make the four key points, which follow below:

a. in the RSS's view, no one consumer price index can meet all user needs. In particular, different indices are needed for (i) macroeconomic purposes and (ii) measuring the impact of inflation on households

b. the Office for National Statistics (ONS) is currently developing the new Household Costs Indices (HCIs). Subject to their satisfactory development, we believe the HCIs could ultimately replace, or become an alternative to, the RPI

c. however, the RPI is likely to remain in widespread use for many decades, due to the extent to which it is embedded in countless contracts. Accordingly, we believe the index should be managed so that it is the best measure possible; changes should not be restricted to routine updating

d. the RSS recently convened and hosted an important and well-attended meeting on 'The Future of the RPI', which involved many distinguished speakers. A wide range of views were expressed but there was broad agreement that the current situation is unsatisfactory, change is needed and clarity about the RPI's future is essential.

Background

4. 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 Consumer Prices Index (CPI) and similar indices were designed; and

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

5. The Office for National Statistics (ONS) is currently developing the new Household Costs Indices (HCIs). Partially developed HCIs were published, for the first time, in December 2017. As long as they continue to be developed satisfactorily, we believe the HCIs should ultimately 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.

6. In contrast, CPI and, by extension, CIPH were developed for macroeconomic purposes. (*Please see Appendix.*) However, HCIs will not be subject to the limitations and constraints presently affecting the RPI and they can be developed with current and future needs in mind.

7. 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 CStat) 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 HCIs, currently being developed); and

c. the RPI as a legacy index.

The RSS continues to fully support this vision.

8. The key differences between the HCIs and CPI/CPIH include:

a. the weighting system used in HCIs will aim to give equal weight to all households. The weighting for CPI and CPIH, however, is based on total expenditures in the economy on each product measured. As a result, they give more weight to higher spending (normally richer) households

b. HCIs will reflect the actual spending of households. They will, therefore, include elements such as mortgage interest and other interest payments and a version will include the capital costs of house purchase. Indices based on economic principles exclude interest rates and either exclude (in the case of CPI) owner-occupier costs or seek other means (CPIH) of measuring them

c. HCIs will aim to measure items at the point of payment, rather than acquisition, when the two differ - for example, when package holidays or theatre tickets are purchased in advance. In particular, only the tuition fees of self-funding university students will be included at the start of the academic year; otherwise students loan repayments will be included

d. HCIs will reflect spending by UK residents whereas macroeconomic indices will reflect spending in the UK, meaning that macroeconomic indices include spending by foreign visitors and exclude spending by UK households abroad - while HCIs will aim to do the reverse.

9. Nevertheless, 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 ('freeze') the compilation of the RPI to routine matters (albeit 'routine' being poorly defined.)

10. It should be noted that, in the past, the RPI (like other indices) always evolved in response to changing times and advances in statistical practice. In March 2013, a letter from the then Deputy Governor of the Bank of England, Charles Bean, to the Chair of the RPI-CPI User Group (Tony Cox) showed that many changes would not be considered 'fundamental'.

11. 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. In particular, 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.

12. 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 'freeze' the RPI's compilation, this research was downgraded. The RSS argued, at the time, that this work should have remained a high priority. Some new research is currently being carried out into clothing prices but a full assessment of different formulae, and how/when they should be used, remains lacking.

'The Future of the RPI' meeting, RSS, 13th June 2018

13. Two main factors lay behind the RSS's decision to stage a major meeting on 'The Future of the RPI', which took place on Wednesday 13th June. First, RSS had been struck by the outcome of court cases concerning the ability of pension funds (most notably BT's) to switch from RPI to CPI links; secondly, we had noted the Government's decision not to provide, for the moment, a legal over-ride for use of RPI in pension schemes. These developments reinforced the prospect of RPI remaining in widespread use for some considerable time. In such circumstances, it was appropriate to consider afresh whether it was an adequate ONS policy for RPI to be left to, in effect, 'wither on the vine'. In addition, there was unhappiness in some quarters about an ONS article, published in March 2018, that a number of people regarded as having been very one-sided and which they criticised for having exaggerated the case against the RPI. We duly decided to organise a meeting on RPI's future and were grateful when the National Statistician agreed very readily to speak at this event and to listen to other contributors' comments and concerns.

14. The RSS sought to bring together representatives of the broadest possible spectrum of opinions; we also sought to maximise the number of people who could speak at this meeting. As a result, many of the attendees and, indeed, speakers were not RSS members. We do not claim that the attendees or speakers were fully representative of all those with informed views on the RPI but the meeting was attended by a wide variety of stakeholders, while divergent views were expressed in response to the National Statistician's presentation.

15. All those who responded agreed that the current situation was unsatisfactory: indeed, it was described, on numerous occasions, as "a mess". A number of possible changes were suggested including:

a. both modest and far-reaching reforms to the RPI

b. changes to the collection of clothing prices

c. a full and scientific review of the formula issues

d. emphasis on the importance of continuing the HCIs' development.

16. Some but not all speakers challenged the ONS view that the RPI was subject to a number of serious shortcomings. The widespread and continuing use of the RPI (particularly, but not only, in pension funds) was stressed. Considerable emphasis was also put on the need for there to be clear and early signalling of any substantive changes to the RPI, to allow suitable time for those affected to prepare for and adapt to them.

17. While the RPI and CPI were compiled for different purposes, their current use by government is illogical and arbitrary. In particular, the use of the RPI in the setting of (for example) railway fares and student loan repayments appears unprincipled in view of the Government's general preference for CPI. The RSS is one of the organisations to have criticised successive governments' practice of inflation 'arbitrage' in this regard.

Royal Statistical Society
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APPENDIX

The need for different types of indices and the Household Costs Indices

1. It is accepted internationally[i] that there is often a need for more than one type of consumer price index to be compiled to meet different purposes. This was explicitly accepted by the European Union when the Harmonised Code of Consumer Prices (HICP) was developed, since the preamble to the relevant Council Regulation includes the words:

> Whereas there is a need for the Community and particularly its fiscal and monetary authorities to have regular and timely consumer price indexes for the purpose of providing comparisons of inflation in the macro-economic context as distinct from indexes for national and micro-economic purposes …[ii]

The Consumer Prices Index (CPI) is the United Kingdom's HICP.

2. HICPs were therefore designed with this purpose in mind while the Retail Prices Index (RPI) had been designed, like most national price indices, with the aim of measuring the impact of inflation on households - specifically and originally with the aim of providing a guide to wage rises. Certain elements of its design - for example, the exclusion of the top 4% of income earners and pensioners mainly dependent on state benefits - were incorporated to help it better measure the income of a 'typical' household.

3. When HICPs were first published, it was therefore intended that countries would continue to compile their own national price indices and that the HICPs would be used for certain purposes only. In the case of the UK, it was expected that the RPI would continue alongside the UK's HICP, which is the CPI. The adoption of the CPI/HICP as the Bank of England's inflation target - a macroeconomic purpose - was in line with this thinking. The adoption of the CPI instead of the RPI for uprating public sector pensions and benefits, however, departed from it.

4. The Government's decision in 2010 to move away from the RPI for some purposes coincided with the changes to clothing collection that increased the formula effect and ultimately led to the chain of events which saw the RPI lose its 'National Statistic' status in 2013.

5. At the moment, therefore, the UK lacks an index which satisfactorily measures inflation from the point of view of the individual household. Some RSS members and the RPI-CPI User Group began, in 2013-14, to suggest that a new index needed to be formed which would do the job that had been previously been done by the RPI, but without the baggage that the RPI had also acquired, and which was also designed for the needs of the twenty-first century. This

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[i] See, for example, paragraphs 1.148 and 3.1 of the Consumer Price Index Manual: Theory and Practice published jointly by the International Labour Office, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), Eurostat, the United Nations and the World Bank.

[ii] Council Regulation (EC) no 2494/95 of 23rd October 1995, concerning harmonized indices of consumer prices.

idea was also supported in the Johnson Review, although it suggested that the index be compiled primarily for groups of households and published infrequently. In 2015, the RSS asked two of its members to develop a proposal for a new household index.[iii]

6. Following public consultation on consumer prices indices in the wake of the Johnson Review, the National Statistician agreed to the development of new household indices as part of his vision of the three 'use cases' for consumer price indices.[iv] The ONS is currently working to develop these indices and published some initial experimental data in December 2017.[v]

7. The following table shows the differences between the RPI, the HCIs and CPI/CPIH that reflect their different aims.

	RPI	**HCIs***	**CPI/CPIH**
Weighting	Expenditure weighted but exclusions modify this**	Household ("democratic") weights	Expenditure ("plutocratic") weights
Expenditure by foreign residents	Excluded	Excluded	Included
Expenditure by UK residents abroad	Notionally included, although limited in practice	Included where possible	Excluded
Mortgage interest	Included	Included	Excluded
Other interest costs	Excluded	Included	Excluded
Other owner-occupier costs	House prices included as proxy for depreciation; other relevant costs (conveyancing, estate agents' fees, buildings insurance, ground rent) covered except stamp duty	Plan is to produce versions with and without mortgage capital payments. All other relevant costs to be included	Excluded in CPI; proxied via rental equivalence in CPIH
Council tax	Included	Included	Excluded from CPI; included in CPIH
Weighting of insurance premiums	Fully included	Fully included	Weight reflects premiums less compensation payments

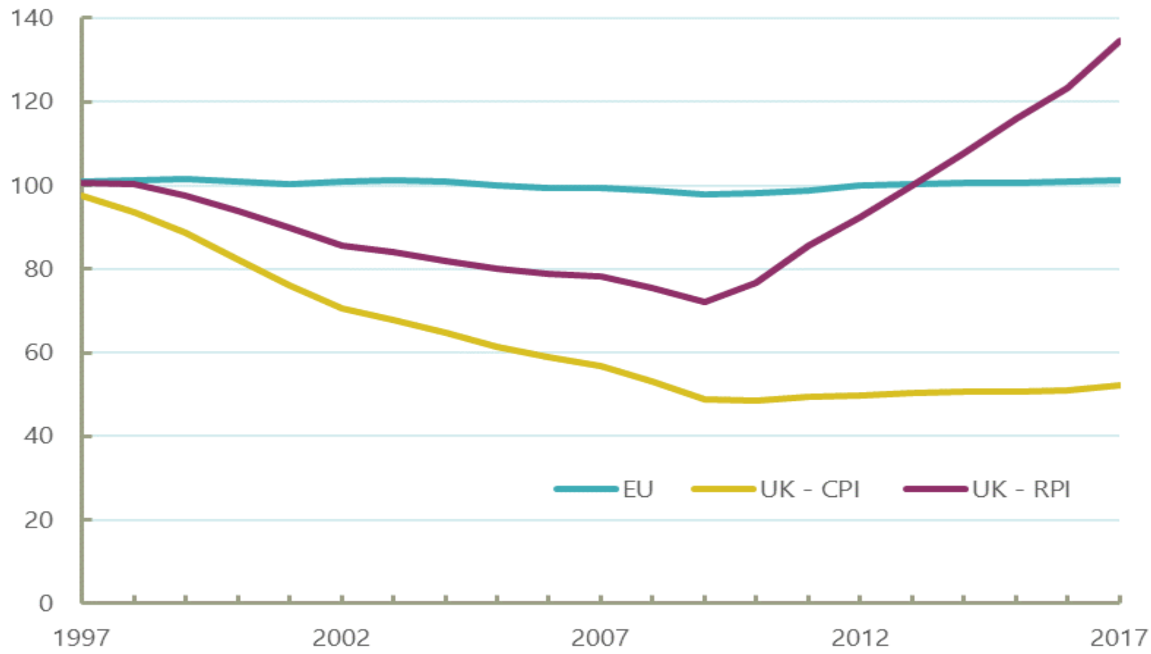
** HCIs are not yet fully developed, so some details may change. **Exclusion of the top 4% of households by income and pensioners mainly dependent on state benefits.*

[iii] Towards a Household Inflation Index, John Astin and Jill Leyland, 2015.
[iv] The most recent explanation of the three use cases is at Measuring changing prices and costs for consumers and households, ONS, March 2018.
[v] Household Costs Indices: preliminary estimates, ONS, December 2017.

The measurement of clothing prices

8. The following chart shows the evolution of clothing prices as measured by the RPI and the CPI before and after the 2010 changes. The overall index for the EU is included as a comparison - but it should be noted that this conceals substantial, and sometimes implausible, differences between countries.

Clothing and footwear indices: 1996=100



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