UK STATISTICS AUTHORITY

National Statistician's Advice to the UK Statistics Authority Board on the Retail Prices Index

1. As the National Statistician, I am the UK Statistics Authority Board's advisor on statistical issues, as set out in section 30 of *the Statistics and Registration Services Act 2007*. In considering the Authority's response to the House of Lords Economic Affairs Committee report on the Retail Prices Index (RPI), the Board has asked for my advice on options for the future of the RPI.

Current position

2. My letter of 9 March 2016[1] to Sir Andrew Dilnot, the then Chair of the UK Statistics Authority, stated that:

    "…I believe that the RPI is not a good measure of inflation and does not realistically have the potential to become one. I strongly discourage the use of RPI as a measure of inflation as there are far superior alternatives."

3. This conclusion drew on, and was consistent with previous statements from my predecessor as National Statistician, the 'UK Consumer Price Statistics: A Review' by Paul Johnson[2], and my consultation response following that review.

4. That view has not changed, and further work by the Office for National Statistics (ONS) has continued to support this position. For example, in March 2018 ONS published a short summary assessment of the shortcomings of RPI[3]. These are:

    i. the formula effect, notably in relation to clothing prices

    ii. the measurement of owner occupiers' housing costs

    iii. the weights used to reflect the relative importance of the various items

    iv. the coverage of the index which excludes the top four percent of households and pensioner households that are mainly dependent on state benefits

    v. a classification system which is inferior to its alternative

    vi. an approach to geographical coverage that is inconsistent with either of the accepted methods used in other statistics

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[1] https://www.statisticsauthority.gov.uk/wp-content/uploads/2016/03/Letter-from-John-Pullinger-to-Sir-Andrew-Dilnot-090316.pdf
[2] https://www.statisticsauthority.gov.uk/reports-and-correspondence/reviews/uk-consumer-price-statistics-a-review/
[3] https://www.ons.gov.uk/economy/inflationandpriceindices/articles/shortcomingsoftheretailpricesindexasameasureofinflation/2018-03-08

5. I have taken into consideration the advice I have received from the National Statistician's Advisory Panels on Consumer Prices.[4]

6. Alternative measures, the Household Cost Indices and the CPI/CPIH, have been designed to be statistically robust and meet our obligations under section 7 of *the Statistics and Registration Service Act 2007* to promote and safeguard statistics for the public good. These measures will continue to be developed to meet the various user needs for inflation statistics.

7. In addition, the legislation underpinning the RPI, notably section 21 of *the Statistics and Registration Services Act 2007* is problematic from a statistical point of view. A legislative requirement that treats changes in one direction differently from another implies bias.

8. Nonetheless, the legislation requires that the RPI continues to be published. Accordingly, we have committed to maintaining and publishing it.

9. There have been some steps away from the use of RPI and the Government has said its objective is that "*CPIH will become its headline measure over time*"[5]. Nonetheless, the continued and widespread use of RPI many years after shortcomings were identified with it, is an ever-increasing concern.

Options for the future

10. I have considered four main options for the future of RPI:

    i.   Option 0: maintain the current position;

    ii. Option 1: 'fix' the clothing element of the RPI;

    iii. Option 2: correct all the shortcomings of RPI; and

    iv. Option 3: cease publication of the RPI.

11. My consideration is solely focused on the statistical issues.

Option 0: maintain the current position

12. The current position can only be sustained in the short term. It is at best uncomfortable for a statistical organisation to continue to publish an index that it does not consider to be a good measure. Despite this, until recently the expressed requirement, confirmed in the various reviews that have been undertaken, has been to maintain the index with its current properties. I have accepted this while at the same time being transparent about my concerns and actively discouraging its use.

13. I do not believe this position can continue. The advice I have received[6] from the National Statistician's stakeholder advisory panel on consumer prices is particularly pertinent: some six years after the RPI lost its National Statistics status, RPI continues in widespread use, (for example to pay many pensioners and as the uprating index in many private contracts) more than "routine maintenance" is needed.

14. Accordingly, I do not recommend that the Board maintains the current position.

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[4] []

[5] Box 1.A of Budget 2018 https://www.gov.uk/government/publications/budget-2018-documents/budget-2018

[6] []

Option 1: fixing the clothing element of RPI

15.   In 2010, a change to the way in which clothing prices were collected had a large, upward effect on the clothing element of RPI and also to RPI itself. As the stakeholder advisory panel has noted: "the increase in the formula effect following the change to collection practices in clothing is obviously problematic, although this was not foreseen… the impact… needs to be addressed as a matter of urgency".

16.   It would be impractical and undesirable to return to the pre-2010 clothing price collection approach. Importantly there was suspected to be a downward bias before the 2010 change was made, and the old method may result in too few price quotes being available. Indeed, clothing remains a challenge and is therefore a focus of ONS work including the implications of the introduction of new data sources.

17.   One option would be to replace the Carli formula used in the RPI clothing element with the Jevons formula. This would be simple to do and the Jevons index is widely used and has known properties. Following the consultation on the future of RPI in 2012/13, a new measure – RPIJ – was introduced that replaced the Carli index with the Jevons, but otherwise was the same method as RPI. This was done to show the impact of the Carli index on the RPI. Paul Johnson's review noted that the RPIJ was little used and suggested ONS consult on discontinuing it. In November 2016, following discussions with users, the ONS confirmed that the RPIJ would no longer be produced[7]. The lack of use suggests a simple change to the formula for clothing may not meet user need. The central problem with any approach that deals only with clothing is the partial nature of any fix. My analysis of the shortcomings of RPI identified six categories of problems, and addressing clothing would only deal with one of those issues. Of course, those problems are not all of the same magnitude, but the remaining issues include some potentially significant shortcomings. I would highlight housing as particularly problematic. This aspect has also been highlighted by the stakeholder advisory panel.

18.   Some have suggested that clothing be omitted entirely from the index. I am not attracted to this option. In effect, we would be assuming that our best estimate of changes in clothing prices is the movement in all other prices which I would struggle to justify from a statistical perspective.

19.   Many of our statistics have areas where they could be improved. The difference with RPI is that we have solutions for those shortcomings. 'Fixing' clothing, for example, by substituting the Jevons index for the Carli would be arbitrary as it would partially address one weakness while ignoring the others. By fixing one of the problems this option would be better than the current position, but is nonetheless not one I recommend.

Option 2: to correct all the shortcomings of RPI

20.   There are different ways of conceptualising this approach, but I think they all amount to the same outcome. Addressing all of the shortcomings would essentially mean using the methods and data for one of the alternative indices which are statistically robust.

7

https://www.ons.gov.uk/economy/inflationandpriceindices/articles/clarificationofpublicationarrangementsfor theretailpricesindexandrelatedindices/november2016#indices-that-will-be-discontinued

21.   However, I can see two statistical issues that would need to be considered.

22.   Firstly, the approach we have set out is to construct statistically robust measures of inflation and to leave users to apply the approach that best meets their needs. This has crystallised in two main 'use cases': economic measures such as CPIH and the closely related CPI, and household measures such as the Household Cost Indices. My view is that either is statistically valid depending on the question being asked by the user.

23.   At present CPIH and CPI are National Statistics, and the ONS is working towards accreditation of the Household Costs Indices as National Statistics in the future. By favouring one index over the other (or others), when both sets of measures are statistically valid we would be pre-empting this consideration unless users had the possibility to move from the 'new RPI' to the best appropriate alternative. For example, it would be possible to align the RPI with CPIH, which would meet the needs of those users seeking an index reflecting inflation according to economic principles. In this situation, those users who were seeking an index reflecting the impact of price changes on households should then be given the opportunity to use the HCIs.

24.   Secondly, under this approach section 21 would still apply and if we permanently aligned RPI and CPIH, all changes to CPIH would need to go through the process set down in legislation. As noted above, the legislation treats changes that increase RPI differently from changes that reduce it. This is a biased methodology. This problem could be avoided if we allowed RPI and CPIH to diverge in future, but then many of the benefits of alignment would be lost and the statistical quality of RPI could deteriorate once again.

25.   Overall this option may have advantages on 'day 1' of any change since there would be a much stronger measure in place. But there are statistical concerns in terms of pre-empting others' decisions on the best index for their needs and accepting biased methodology inherent in section 21.

26.   Nonetheless, a proposal by the Board to use section 21 to align the RPI with CPIH would be statistically more robust than the current position or simply fixing clothing. Given that my preferred option is not one where the Board has the authority to act I could support this. In doing so I note that a majority of members of the stakeholder advisory panel would "prefer to start from CPI or CPIH – recognising the considerable consultation on CPIH in recent years". In this scenario, I would provide advice to users who are seeking an index reflecting the impact of price changes on households, encouraging them to use the HCIs.

Option 3: ending the publication of RPI

27.   From a purely statistical viewpoint, this is the strongest option. We would be left with only statistically robust measures of inflation, and a simplified landscape – improving the accessibility and clarity of our statistical outputs. In addition, this removes the statistical bias in section 21. Stopping a weak measure does not have any statistical drawbacks. Whilst I recognise that this option requires legislation to repeal section 21 and to enable users to move to an index appropriate to their needs and is, therefore, not one where the Board has the authority to act, this is my recommended approach.

28.   I am, of course, not commenting on the wider policy or implementation concerns. I am focusing solely on the statistical issues.

Summary

29.   I do not recommend that the Board maintains the current position (option 0), nor do I recommend an option that only fixes the clothing element of the RPI (option 1). I could support a proposal by the Board to use section 21 of *the Statistics and Registration Services Act 2007* to correct the shortcomings of the RPI, by recommending the alignment of its coverage and construction with CPIH, while providing advice to users who are seeking an index reflecting the impact of price changes on households encouraging them to use the HCIs (option 2). I recommend legislation to repeal section 21 so that the Board can end the publication of the RPI (option 3).

[JP] | February 2019