

## ADVISORY PANEL ON CONSUMER PRICES – STAKEHOLDER

**Improving clothing measurement in consumer price inflation statistics****Purpose**

1. This paper sets out our proposed plans to take forward work on the measurement of clothing, taking into account the current strategic direction for consumer price inflation statistics.

**Actions**

2. Members of the Panel are invited to:
  - a) comment on ONS's forward plans for work on clothing and advise on project aims, objectives and deliverables

**Project Background and Aim**

1. In 2016, the National Statistician's Advisory Panel on Consumer Prices (APCP) recommended that work on clothing should be returned to a high priority. ONS has subsequently raised the profile of this work stream on its [Consumer Prices Development Plan](#) (item 3.2.7).
2. In 2010, [changes to the way that clothing prices are collected](#)<sup>1</sup> led to an increase in the difference between the Consumer Prices Index (CPI) and the Retail Prices Index (RPI). From 2010 to 2012 ONS carried out [extensive research](#)<sup>2</sup> to understand this difference and the Carli formula, used to aggregate price relatives at the item level in the RPI, was found to be flawed.
3. As a result of an open consultation in 2012, the National Statistician recommended that there should be no fundamental changes to the RPI and that it should instead become a legacy measure. It was decided that there would be no further changes to the methodology of the RPI, which would continue to use the Carli formula. The RPI subsequently lost its National Statistics status in March 2013.
4. Furthermore, the [Statistics and Registration Service Act 2007](#) governs the development of the RPI, such that the Chancellor of the Exchequer must give consent for any changes to be made which 'constitute a fundamental change ..., which would be materially detrimental to the interests of the holders of relevant index-linked gilt-edged securities.'
5. Therefore, this project can best add value by investigating more broadly the ways in which the measurement of price changes for clothing could be improved, particularly in light of alternative data sources that are now available.
6. We have reviewed previous work done on the changes introduced in 2010 and identified forward research plans. A project has been established that aims to improve the measurement of clothing prices. The project also aims to use alternative data sources in order to improve the measurement of clothing price changes, as well as looking at the criteria for choosing elementary aggregate formulae.

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<sup>1</sup> CPI and RPI: increased impact of the formula effect in 2010 (2010)

<sup>2</sup> Discussion paper: results of ONS research into the application of the stochastic and sampling approaches to the choice of elementary aggregate formula (2012)

## Project Deliverables

7. The first deliverable was to review previous work done on clothing and the formula effect, looking at the [Consumer Prices Advisory Committee papers](#) and internal ONS papers. This has now been completed and forward research plans have been identified.
8. The next deliverable will be an assessment of the current methodologies used to calculate clothing price inflation. Following advice from the technical advisory panel and other sources, the ONS will explore further statistical techniques:
  - Alternative methodologies, such as winsorisation and truncation, ratios of averages, applying a smoothing filter and the Rothwell formula
  - Improved identification of comparable replacements; for example, through nearest neighbour matching and machine learning techniques
9. The third deliverable will be to investigate the use of alternative data sources, as the ONS have a large source of web-scraped data, and determine whether the quality and efficiency of the consumer price indices can be improved as a result. Another part of this deliverable will be to recommend the appropriate methodology to use when working with alternative data sources.
10. The final deliverable, following the [Johnson Review](#) recommendation, that the 'ONS should review and publish its criteria for choosing how to combine price quotes at the lowest stage of aggregation', will be to review and publish the criteria for the choice of elementary aggregates across the basket.

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