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Dear James and Sarah

This letter covers changes to consumer price inflation statistics in 2017. Firstly, a key proposed non-routine change to the Retail Prices Index (RPI), detailing the action required and timescale for response. The rest of the letter addresses other routine and non-routine changes to the suite of consumer price inflation statistics. This latter section is provided for information.

1. RPI: PLANNED CHANGES AT THE TIME OF THE ANNUAL RE-WEIGHTING AND UPDATING OF THE BASKETS

i. Issue

The UK Statistics Authority (The Authority) has endorsed a proposed change to the coverage or basic calculation of the RPI put forward by the Office for National statistics (ONS). With the introduction of a new UK House Prices Index (UKHPI), first published on 14 June 2016, we are planning to update the calculation of the housing components of the RPI to reflect the new UKHPI rather than the historic ONS HPI. We will introduce these changes in the February 2017 index published on 21 March 2017.

ii. Action

For consultation as required under Section 21 of the Statistics and Registration Service Act 2007. This letter initiates the Authority's consultation with the Bank over whether use of the new UKHPI to calculate housing costs within the RPI would constitute a fundamental change in the index that would be materially detrimental to the interests of holders of relevant index-linked gilts, and hence trigger the redemption clause.

iii. Timing

For response by 6 January 2017.

iv. Background

On 14 June 2016 ONS, in conjunction with the Land Registry, released a new UKHPI, which replaced the former ONS HPI. The new HPI introduced a number of improvements, the most important of these being:

i. The UKHPI now also includes cash sales, which were previously excluded from the ONS HPI

ii. The UKHPI uses a geometric mean, while the ONS HPI used an arithmetic mean

Although the published UKHPI uses a geometric mean, given how the data is used within RPI an arithmetic mean is required. A version of the UKHPI will be calculated separately using an arithmetic mean for use in the RPI. The HPI is used in the calculation of some RPI housing components, namely mortgage interest payments, estate agents fees, ground rent and house depreciation

The impact of replacing the current ONS house price index within RPI with the new UKHPI (calculated on an arithmetic mean basis) is estimated to increase RPI by around 0.1 percentage points in about half of the months. The new UKHPI addresses limitations with the previous ONS HPI with the inclusion of both cash and mortgage sales and other improvements to the methodology. The old ONS HPI continues to be processed for use only in RPI. The UKHPI, as an arithmetic mean, will be used as the source of the housing components within RPI from February 2017.

If changes are being made to the housing component within RPI the opportunity to use the most appropriate index to forecast the latest month should also be implemented. As part of the calculation of housing components in the RPI, we currently use Halifax data to forecast the latest month. However, research has shown that data from Nationwide will provide a better forecast. Therefore the movement in the Nationwide index will be used to forecast the latest month within the RPI for the housing components.

2. CPI, CPIH, RPI and RPIJ: Further planned changes

Further to the information provided in the first section, which covered non-routine changes to the RPI, this section details other routine and non-routine changes to the suite of consumer price inflation statistics.

2.1. Other routine changes to RPI, CPI and CPIH

i. Location Boundary Review

In 2014 the sampling frame used to define the location boundaries for the suite of consumer price inflation statistics captured around 76% of total retail activity in the UK. New methodology has been developed to define the sampling frame which captures around 85% of the retail activity in the UK.

The live-pilot will be continued in next year's sample refresh in January 2017, incorporating eight further locations based on the new sampling frame. Within the annual sample re-fresh, two of the current locations which have been chosen to be re-enumerated, will have their location boundaries changed in line with the new sampling frame. Six of the locations dropped will be replaced using six locations from the new sampling frame.

Following a review of the success of the pilot study, ONS proposes to roll out the new sampling frame over a five year period. Around thirty locations are refreshed or re-enumerated annually; in the future these will be updated using the new sampling frame. Changes to the location boundaries will be carefully controlled to avoid overlaps with current locations within the sample.

It is considered that the introduction of a new sampling frame is a periodic routine change, necessary to maintain the suite of consumer price inflation statistics.

ii. Annual Basket Update

The annual update of the suite of consumer price inflation statistics will take effect with the February 2017 indices, which will be published on 21 March 2017. An accompanying article describing the changes to the baskets will be published on the ONS website about a week earlier. A fuller description of the reweighting and updating process can be found in the basket article for 2016, which is available online[1] .

The standard procedures for the annual updating of the baskets are well rehearsed. Although fixed within each year, the contents of the baskets of goods and services and their associated expenditure weights are updated annually to ensure they are representative of household spending patterns. The updating mitigates potential biases that might otherwise occur from not allowing for consumers switching purchases away from goods and services that have increased in price relative to those whose prices have reduced relative to other goods and

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1 https://www.ons.gov.uk/economy/inflationandpriceindices/articles/consumerpriceinflationbasketofgoodsandservices/2016

services. Each year ONS conducts research into expenditure patterns to help inform decisions on which goods and services are under-represented and in which areas of the basket there is scope for removing items. Criteria for choosing a set of items to represent particular categories of expenditure, such as clothing and footwear or food, include the size of expenditure and the diversity of the market based on information from the Living Costs and Food (LCF) survey, observed price variations based on historic data, and market research from a variety of sources on latest consumer trends. Information principally from the latest LCF and UK national accounts is used to update the expenditure weights.

It is considered that the changes in the contents of the Consumer Prices Index (CPI), CPI including owner occupiers' housing costs (CPIH), and RPI baskets and the associated weights are not significant beyond their primary aim of ensuring the continuous and proper representation of consumer expenditure habits.

2.2. Changes that only affect CPI and CPIH (non-routine)

i. Double price update

A double chain link is used in the CPI and CPIH to address the practical problem of using the same price data for both the RPI and the HICP (which is the CPI). RPI prices are collected on a January to January cycle but HICP regulations require COICOP weights to be updated each December. Therefore the UK version of the HICP employs one chain link in December to include the new weights and a second chain link in January to include the new price reference period.

The CPI is a Lowe price index, meaning that quantity weights should be fixed at some point in the past. In order to construct weights, expenditure data are collected for the required period and then "price updated" to the price reference period (January for CPI, December in other countries' HICPs). However, for 11 months of the year in the CPI, the month to which weights are price-updated (December) and the price reference period (January) are different. ONS has worked with Eurostat to improve the double chain link methodology and, in October 2015, Eurostat initiated an independent review which proposed price updating weights twice a year for the CPI. The resulting index would then be "mathematically identical to an index with a single chain link".

Therefore, in January, CPI will use weights price updated to December (as it does already), but from February to December, it will use weights price updated to January. These changes will correct an existing bias in the CPI, and the double updating of prices brings the CPI mathematically in line with a single December link index. ONS has agreed in principle to implement this method into the HICP in February's index, published on 21 March 2017.

ii. COICOP5

In the February index (published on 21 March 2017), ONS will also publish CPI and CPIH at an additional level of aggregation below the current Class (COICOP4) level. This level is known as COICOP5, or ECOICOP5. COICOP5 will sit between the existing class (or COICOP4) level indices and item level indices. The introduction of COICOP5 necessitates a change to the aggregation structure of CPI and CPIH. In essence, the COICOP5 sub-classes replace the existing COICOP4 classes as the first building block above the item level.

Testing the implementation of COICOP5 in an off-line system has demonstrated that adding COICOP5 into the CPI aggregation structure can result in differences in indices at higher levels of aggregation. The differences come from the way in which the double chain link is applied. Calculations for the double link currently occur at the COICOP4 level. As a result of this difference the second link will be applied at the item level when implementing COICOP5 rather than moving the calculation to the COICOP5 level. Applying the second link at the item level when implementing COICOP5 will result in an index that is more robust to changes in classification and aggregation methods in the future, and ensure that the aggregation methodology is consistent at all levels.

Based on analysis[2] conducted on CPI data between 2005 and 2015 the expected impact of both the COICOP5 and double price update changes on the headline CPI is a reduction in the 12 month growth of between 0.0 and 0.1 percentage points in most months. The differences seen in the CPI are lessened for CPIH.

iii. Council Tax

Following recommendations made by the Consumer Prices Advisory Committee (CPAC) in 2012, and a public consultation after the Johnson Review[3], the National Statistician wrote to Andrew Dilnot[4] in March 2016, notifying the Authority that ONS would be 'including Council Tax in the CPIH calculation.' Council Tax is an important cost associated with using a dwelling and is therefore appropriate in a measure which includes owner occupiers' housing costs (OOH). Council tax will be included in the CPIH for the first time in the February index published on 21 March 2017. As a tax associated with OOH, it will not be included in the CPI.

Council tax will be excluded from CPIH-Y, which is CPIH excluding indirect taxes. Although Council Tax is not specifically an indirect tax, the purpose of CPIH-Y is to provide an index which excludes the effects of taxes on consumption. Council Tax will therefore be removed from CPIH-Y. Council Tax will feed into the Housing Division at COICOP level 2, and new categories will be created at COICOP levels 3 to 5. As a result of this change, the Council Tax component of CPIH will be revised back to 2005, which is the start of the series.

iv. OOH weights revisions

In 2015, ONS had an opportunity to revise the weights for the OOH component within CPIH. The decision was made to anticipate the planned improvements by, as far as possible, using Blue Book 2016 consistent methods when calculating the 2015 weight for imputed rentals. ONS also revised expenditure estimates, based on the imputed rentals series dating back to 2005, so that they were as far as possible consistent with the updated methodology and data sources to be included in Blue Book 2016. Revising ensured that the OOH component weight aligned with historical estimates and mitigated a future step change in the weight for 2017 when the planned improvements would be taken on from Blue Book 2016.

Since these estimates were used to create the 2015 weight for imputed rentals, the planned improvements for Blue Book 2016 have been finalised and the expenditure on imputed rentals were revised downward from the initial estimates. Due to these revisions, there has been a shift downwards in the weight for imputed rentals between 2015 and 2016, even though the finalised expenditure series for imputed rentals has risen over the period.

As the CPIH is being revised for Council Tax, the weights for OOH will also be revised back to 2005, to be consistent with Blue Book 2016 expenditure estimates.

3. Cessation of the RPI-Jevons (RPIJ)

This letter has not referenced any changes to the RPIJ. To note that, as of March 2017, the RPIJ will no longer be published.

The Johnson Review[5] recommended the discontinuation of RPIJ, which has limited use, and shares many of the common flaws of RPI, such as weighting, population coverage and treatment of owner occupiers' housing costs. I can confirm that, following a public consultation, the National Statistician has decided that we will no

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2 https://www.ons.gov.uk/economy/inflationandpriceindices/methodologies/assessingtheimpactofmethodologicalimprovementsontheconsumerpricesindex

3 https://www.statisticsauthority.gov.uk/reports-and-correspondence/reviews/uk-consumer-price-statistics-a-review/

4 https://www.statisticsauthority.gov.uk/correspondence/shaping-the-future-of-consumer-inflation-statistics-in-the-uk/

5 https://www.statisticsauthority.gov.uk/reports-and-correspondence/reviews/uk-consumer-price-statistics-a-review/

longer publish the RPIJ from March 2017. We will, however, publish an estimate of the formula effect between RPI and RPIJ that will help users to understand the impact of choice of elementary aggregate formula.

Please let me know if you have any queries or would like to discuss any of the changes raised in this letter further.

A copy of this letter goes to Nicholas Butt and Stuart Berry at the Bank of England, to Dave Ramsden and Stephen Farrington at the Treasury and to Jonathan Athow and Nicholas Vaughan here at ONS.

Yours sincerely

Mike Prestwood