

Monitoring Brief

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Communicating Inflation

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1. INTRODUCTION

- 1.1 Statistics on consumer prices are among the most fundamental indicators of the state of the UK economy and thus among the most closely watched of all official statistics. They are used as the inflation target of the Bank of England and for uprating benefits, to index income tax thresholds, for index-linked gilts, wage bargaining and inflation clauses in commercial contracts. Some of these uses are enshrined in legislation and so too are some aspects of the production and dissemination of the statistics themselves. They thus sit slightly to one side of the normal conventions for the oversight and management of UK official statistics.
- 1.2 However, the macroeconomic policy and statutory uses should not be allowed to overshadow the other more conventional role these statistics play in informing everyday decisions of businesses and individuals – in deciding whether to invest or save, for example. Measures of inflation influence decisions and actions at all levels and sectors of society and this wider ‘user requirement’ must be recognised and respected alongside the role of inflation statistics as a macroeconomic indicator.
- 1.3 The Office for National Statistics (ONS) produces two main measures of inflation, the Consumer Prices Index (CPI) and the Retail Prices Index (RPI). Both have related sets of derivative measures, including RPIX (which excludes mortgage interest payments), RPIY (RPIX excluding indirect tax changes) and CPIY (the CPI excluding indirect tax changes).
- 1.4 Questions have been raised about the possible confusion caused by different measures, seemingly competing for media and public attention. The Statistics Authority has to consider whether the statistical messages deriving from the price indices are being communicated as clearly as they could be. Whilst accepting that different variants are needed for different purposes, we want to see confusion minimised and public confidence in the official measures reinforced. That is the focus of this Monitoring Brief.
- 1.5 Concerns in this area are well documented. In 2007, a European Commission survey found low levels of awareness of the actual level of inflation (in the country of the respondent) in the UK and across the European Union. ONS’s 2007 report on public confidence in official statistics¹ found that trust in inflation statistics was ranked fourth out of six key statistics asked about. In June 2009, an Early Day Motion in Parliament² noted the disparity between the CPI and the RPI measures of inflation, the confusion that this caused in the broadcast media, and called for a review.
- 1.6 This Brief starts by considering some points that have been raised in public debate about official statistics on inflation (section 3). It then considers the background to the two main measures. It identifies distinct uses that are made of the measures and looks at the need to respond further to these (section 4). And it considers aspects of the way in which the official measures of inflation are communicated (section 5).

¹ <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=13967>

² <http://edmi.parliament.uk/EDMi/EDMDetails.aspx?EDMID=38850>

- 1.7 This Brief was prepared in parallel to the statutory assessment of consumer price indices against the *Code of Practice for Official Statistics*³. **Annex 1** summarises what users told us about these statistics in the course of that assessment; and these views are drawn upon in the Brief.

³ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

2. SUMMARY

2.1 This section summarises our main conclusions. These are brought together as a list of suggestions for the future at paragraph 2.12.

2.2 In maintaining and developing the indices, ONS takes account of the work of the Consumer Prices Advisory Committee (CPAC), which was established in 2009 to advise the Statistics Authority on methodological changes proposed by the Office for National Statistics. It is chaired by the National Statistician. In its 2010 Annual Report⁴, the Committee made two substantive recommendations:

- ONS should develop owner occupiers' housing costs (OOH) indices using the net acquisitions and rental equivalence approaches for potential inclusion in an expanded CPI (CPIH) within two years.
- ONS should change the method used to measure seasonal items in the CPI and RPI and the new method should be introduced in the February 2011 publication.

2.3 CPAC also recommended that ONS should consult widely on a programme of work for the further development of the CPI and RPI. The Statistics Authority has endorsed all these recommendations. Our first conclusion is therefore that ONS, guided by CPAC, is already actively developing plans to address some of the concerns that have arisen in public debate (section 3).

2.4 The Authority's Assessment Report on consumer price indices⁵ identifies some further points that the Authority believes ONS should address. Some of these are Requirements, which need to be addressed as part of the designation of the statistics as National Statistics; others are suggestions for improvement, which would improve the statistics and the service provided to users but which are not formally required for their designation:

- Take steps to develop a greater understanding of the use made of the statistics; publish the relevant information and assumptions and use them to better support the use of the statistics (Requirement).
- Publish fuller information about the history of, and reasons for, the methodological differences and differences in scope between the CPI and RPI; explaining the implications that these differences have for the uses of the statistics (Requirement).
- Provide information about ONS's overall approach to improving the way in which the RPI is constructed, taking account of the constraints imposed by legislation (suggestion for improvement).
- Set out a clear official position in relation to developing regional consumer price indices (suggestion for improvement).

⁴ http://www.statistics.gov.uk/downloads/theme_economy/cpac-annual-report2010.pdf

⁵ UK Statistics Authority, Assessment Report 79 – Consumer Price Indices (Office for National Statistics) <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-79---consumer-price-indices.pdf>

- Consult users to assess the demand for supplementary price indices for different household types (suggestion for improvement).
- Consider reinstating some international comparisons in the *Consumer Price Indices* statistical bulletin (suggestion for improvement).

The uses of consumer price indices and the need for improved measures

- 2.5 We have considered the use of consumer price indices both as a macroeconomic measure of inflation and as a compensation index (for example, for the annual uprating of pensions). We conclude that these uses impose sufficiently different requirements on the indices as to require more analysis of the implications that the different uses have for the construction of price indices.
- 2.6 We note some practical constraints on future development of the two main measures. Some uses of the indices require continuity in the composition of the indices, while others would benefit from the development of improved measures. We have identified some issues here on which further consultation with users would be helpful. One of these relates to whether the preferred macroeconomic measure of inflation can also, in practice, adequately meet the needs for a compensation index; or whether one or more additional measures may be required.
- 2.7 In making this suggestion, we are aware that the case for producing additional measures of inflation in the future, to meet different user needs, has to be balanced against the risk of exacerbating the challenge of effective communication.

Communicating inflation

- 2.8 We have concluded that the current main statistical release, the *Consumer Price Indices* statistical bulletin is clearer and better presented than before its recent redesign. However, our review of the way in which statistics on inflation have been communicated (section 5) suggests that more could be done to clarify for journalists, and the public, some of the more confusing aspects of the current measures. This could be addressed through additional written commentary in the bulletin. This might include fuller discussion of the different uses and potential uses of the statistics, and provide some signposting to where further guidance can be found on the suitability of the different indices for the particular uses to which they are put. Commentary on the UK position in terms of international comparisons of inflation rates and trends would help to set the UK narrative in an international context.
- 2.9 The *Consumer Price Indices* statistical bulletin might also usefully include more commentary on specific external developments - such as the recent (and forthcoming) changes in VAT rates - that are likely to be of particular interest to readers.
- 2.10 We suggest that ONS review the value of having three separate monthly outputs to present these statistics. The *Economic and Labour Market Review* contains important messages about inflation and these could be packaged for a wider audience.

- 2.11 We suggest that ONS evaluate how effective the ‘personal inflation calculator’ has been in addressing perceptions of inflation. The approach that Germany has taken - creating an index of *perceived* inflation - offers a possibly valuable way of bridging the gap between the official measures and public perceptions. We suggest that ONS investigate this further.

Suggestions for improvement

- 2.12 Drawing together the main points, we suggest that ONS and CPAC should consider the following:

Implement the matters raised in the Assessment report

1. Take forward the matters raised in the Assessment Report, including:
 - a) establish an up-to-date official position on regional indicators; and
 - b) consult on the demand for indices for different household types (paragraph 2.4).

Improve the understanding of the appropriate uses of inflation statistics

2. (a) Carry out more analysis of the strengths and weaknesses of the CPI and RPI as macroeconomic measures of inflation and as compensation indices;
 - (b) As part of the analysis at (a), examine the benefits and disadvantages of using the preferred macroeconomic measure of UK inflation as a compensation index, and the practicality of using different measures for these distinct uses; and
 - (c) Use the analysis at (a) and (b) to guide future development of the indices (paragraph 4.10).
3. In the context of this analysis, consult users on whether the current proposals for improving the CPI while maintaining the RPI represent a suitable approach to developing improved measures of inflation, while continuing to meet users’ needs for existing measures (paragraph 4.14).
4. Include in the *Consumer Price Indices* statistical bulletin a fuller discussion of the uses and potential uses of the different statistics on inflation, and provide some signposting to further guidance on the suitability of the different indices for particular uses. Review the continuing user requirement for RPIX and for two separate measures that exclude indirect taxation, CPIY and RPIY, and the way these measures are described and presented in *Consumer Price Indices* (paragraph 5.10).

Improve the presentation of and commentary about the statistics

5. Review the need for three separate monthly publications to release these statistics, and consider whether other arrangements would allow these statistics to be communicated more clearly (paragraph 5.3).

6. Build on the recent improvements in the *Consumer Price Indices* statistical bulletin by (a) including additional commentary on specific external developments that have an impact on the indices; (b) drawing attention to any particular significance of the latest figures and (c) including a clear explanation whenever the difference between the CPI and RPI headline measures of inflation is significant (paragraph 5.5).

Better support the news media

7. Support the news media in relation to the communication of the statistics by (a) producing additional published material for users and journalists on the differences between a consumer price index and a cost of living index; and (b) considering ways of bringing to a wider audience the important messages about inflation statistics that are published in *Economic and Labour Market Review* (paragraphs 5.13 and 5.15).

Address *perceptions* of inflation

8. Evaluate how effective the 'personal inflation calculator' has been in addressing perceptions of inflation. Also, consider, with users, whether there are any lessons for the UK from the German index of perceptions of inflation that might supplement the work that ONS has already carried out on the way in which inflation is perceived (paragraphs 5.17 and 5.18).

3. THE EXTERNAL VIEW

3.1 Since the UK Harmonised Index of Consumer Prices (HICP) was first published in 1997, a number of commentators have spoken of concerns about the way in which inflation statistics for the UK have been produced and disseminated. In 2003, the Guardian published an article⁶ noting that the UK had gone from one measure of inflation in the 1970s to five by 2003, “each measuring something different”. In 2004, the Statistics Commission published a report that considered the calculation of the RPI and RPI governance, and made some recommendations⁷. In 2009, an Early Day Motion⁸ in the House of Commons called for a review of the two different official measures of inflation in the UK, ‘so that a more coherent inflation index is introduced’. In August 2010, the President of the Royal Statistical Society wrote to the Chair of the UK Statistics Authority⁹ to express a number of concerns relating to the different measures of inflation.

3.2 This section reviews and comments on some of the points that have been raised.

(i) Whether the CPI, as the main macroeconomic measure of domestic consumer price inflation in the UK, should include owner-occupiers’ housing costs.

The Treasury and the Bank of England would like to see owner-occupiers’ housing costs included in the CPI. CPAC’s 2010 Annual Report recommends that ONS develop owner occupiers’ housing costs indices for potential inclusion in an expanded CPI. ONS plans to consult widely over its work programme to develop such indices.

(ii) Whether the RPI should continue to use the arithmetic mean to combine prices, rather than the geometric mean which is used by the CPI.

The choice of statistical technique for combining prices has a significant impact on the headline measure of annual inflation. This is referred to as the ‘formula effect’. Recently, this effect has raised the RPI measure by 0.9 percentage points, compared with the CPI. In 2003, ONS published some analysis of the arithmetic mean and geometric mean in relation to the uses of the CPI and RPI as compensation indices. This analysis is considered in Annex 3. This Monitoring Brief suggests that ONS should carry out more analysis of the strengths and weaknesses of the CPI and RPI (Suggestion 2). This would provide an opportunity for ONS to update its analysis of the arithmetic mean and geometric mean, to help guide the future development of the indices.

⁶ <http://www.guardian.co.uk/business/2003/dec/17/politics.economicpolicy>

⁷ http://www.statscom.org.uk/C_407.aspx

⁸ <http://edmi.parliament.uk/EDMi/EDMDetails.aspx?EDMID=38850>

⁹ <http://www.statisticsauthority.gov.uk/reports---correspondence/correspondence/index.html>

(iii) Whether constraints imposed by the 2007 Act have inhibited ONS from improving the way in which the RPI is constructed.

The *Statistics and Registration Service Act 2007*¹⁰ requires the Chancellor of the Exchequer rather than ONS to approve fundamental changes to the coverage and basic calculation of the RPI, in certain circumstances. ONS's high level work plan for the CPI and RPI sets out its proposals for improving the CPI while maintaining the RPI. This Monitoring Brief suggests that ONS should consult users about whether these proposals represent a suitable approach to developing improved measures of inflation, while continuing to meet users' needs for existing measures (Suggestion 3).

(iv) Concern about the increasing prominence of the CPI in the Consumer Price Indices statistical bulletin.

ONS redesigned the *Consumer Price Indices* statistical bulletin for the June 2010 estimates, giving greater prominence to the CPI and appearing to diminish the significance of the RPI. The Assessment Report found that the new release was clearer and better presented than the old release, but noted that the changes would have benefited from wider consultation. ONS has since consulted users about the redesigned bulletin, and has decided to reinstate the latest RPI 12-monthly rate on the front page of the bulletin.

(v) Whether the deliberations of the Consumer Prices Advisory Committee should be more open.

CPAC mainly reports its work through its Annual Report to the Authority Board. In 2004, before CPAC had been established, the Statistics Commission recommended that ONS publish regular progress reports on the RPI research programme, indicating any methodological changes that might be in prospect. CPAC has recently decided to make summary minutes of its meetings publicly available. This will increase the transparency of the way in which priorities are set for developing these statistics.

(vi) Whether ONS should produce and publish a wider range of price indices, including regional price indices and price indices for different household types.

In 2003, ONS described its approach to relative regional consumer price levels and regional price indices in *Developing estimates of relative regional consumer price levels*¹¹. The Assessment Report suggested that ONS publish information to update its approach.

ONS publishes RPI pensioner indices for one person and two person pensioner households in *Focus on Consumer Prices*. These are the only examples of consumer price indices that ONS regularly produces for specific population groups. In September 2008 ONS published a paper in *Economic and Labour Market Review, Measuring UK Inflation*, which included some analysis of the different rates of

¹⁰ http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

¹¹ <http://www.statistics.gov.uk/CCI/article.asp?ID=481>

inflation experienced by different income groups and by different household types (see Annex 5). The Assessment report suggested that ONS consult users about the need for separate price indices for a range of different household types.

4. THE DIFFERENT OFFICIAL MEASURES OF CONSUMER PRICE INFLATION

- 4.1 ONS produces two main inflation measures, the Consumer Prices Index (CPI) and the Retail Prices Index (RPI). It also produces other official measures of inflation that are derived from the CPI and RPI, including the Retail Prices Index excluding mortgage interest payments (RPIX). ONS publishes these measures each month in the *Consumer Price Indices* statistical bulletin¹².
- 4.2 The RPI is the older measure of inflation, dating from 1947. For many years it served as the UK's only measure of inflation. The CPI was first produced as an alternative measure of UK inflation in 1997, when ONS published it under the name by which it is known internationally, the Harmonised Index of Consumer Prices (HICP). The HICP was developed as a comparable measure of inflation across European Union (EU) Member States. Annex 2 provides a brief history of the CPI and RPI and summarises their main uses.

The uses of consumer price indices as macroeconomic measures of inflation and as compensation indices

- 4.3 In December 2003 the National Statistician announced that the HICP was to be renamed the CPI. After this announcement, the *Consumer Price Indices* statistical bulletin started to refer to the CPI as 'the main United Kingdom domestic measure of inflation for macroeconomic purposes'. The reference to 'macroeconomic purposes' was new. Previously, the Bulletin had referred to the RPI simply as 'the main domestic measure of inflation in the United Kingdom'.
- 4.4 ONS produced a detailed paper, *The New Inflation Target: The Statistical Perspective*¹³ to accompany the announcement. This paper included an assessment of the respective merits of the CPI and RPIX as macroeconomic measures of inflation. The paper is considered in more detail in Annex 3. The main points to note are:
- The *New Inflation Target* identifies some advantages of the CPI over the RPI and RPIX as a macroeconomic measure of inflation;
 - The paper notes that the exclusion of owner-occupiers' housing costs from the CPI is a disadvantage that needs to be addressed;
 - It also identifies the familiarity and credibility of the RPI, built on a long history, as an advantage over the CPI. It anticipated the CPI eventually achieving the same credibility as the RPI, whilst noting that that this will take time.
- 4.5 The *New Inflation Target* also considered the separate use of consumer price indices as 'compensation indices'. This is where a consumer price index is used to adjust prices, benefits and incomes to compensate for the way in which consumer price inflation would otherwise erode their value. Annex 2 notes the wide range of uses of consumer price indices as compensation indices, by both the public and the private sectors. These uses include, for example, the indexation of state pensions, wage bargaining and adjustments specified in a wide range of private contracts.

¹² <http://www.statistics.gov.uk/statbase/Product.asp?vlnk=868>

¹³ <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=10913>

- 4.6 The recent announcement by the Chancellor of the Exchequer¹⁴ of the Government's intention to use the CPI rather than the RPI for the indexation of benefits, tax credits and public service pensions has turned the spotlight onto the uses of the CPI and RPI as compensation indices. The interim report for the Independent Public Service Pensions Provision¹⁵ led by Lord Hutton states: "This change in the indexation measure may have reduced the value of benefits to scheme members by around 15 per cent on average". This has highlighted questions about which consumer price indices should be used for which purposes.
- 4.7 As part of the recent assessment of consumer price indices, ONS told us that it does not provide any additional information detailing how the indices should be used, beyond that contained in the *Consumer Price Index Technical Manual*¹⁶. We think that on balance, and given the current focus on the relative merits of the CPI and RPI as compensation indices, that ONS has an important role in providing users with additional information and analysis about the strengths and weaknesses of the different measures for the purposes for which they are used.
- 4.8 The *New Inflation Target* included some consideration of the respective merits of the CPI and RPI as compensation indices, but did not reach any clear-cut conclusions about which measure should be preferred. In particular, it is not clear from the analysis whether different measures are needed for a macroeconomic measure of consumer price inflation and for a compensation index, or whether the same measure can be sensibly used for both purposes.
- 4.9 The Assessment Report on Consumer Price Indices included the following requirement:
- As part of the designation as National Statistics, ONS should publish information about the history and the reasons for differences in scope and methods between the CPI and RPI; and explain the implications that these differences have for the uses to which these statistics are put¹⁷.
- 4.10 In preparing this information, we suggest that ONS carry out more analysis of the strengths and weaknesses of the CPI and RPI as macroeconomic measures of inflation and as compensation indices. As part of that analysis, we suggest that ONS examine the benefits and disadvantages of using the preferred macroeconomic measure of UK inflation as a compensation index, and the practicality of using different measures for these distinct uses. We suggest that ONS use this analysis to guide future development of the indices.

Developing improved measures of inflation

- 4.11 CPAC's Annual Report notes that the continued absence of owner occupiers' housing costs in the CPI is seen as its biggest weakness. The inclusion of these costs in an expanded CPI is a top priority for HM Treasury and the Bank of England. CPAC recommends that ONS develop new measures of owner occupiers' housing costs for potential inclusion in an expanded CPI (CPIH). ONS has included plans to address this recommendation in its high

¹⁴ See HM Treasury 2010 Budget Announcements, press notice 1

http://www.hm-treasury.gov.uk/d/junebudget_press_notice1.pdf

¹⁵ http://www.hm-treasury.gov.uk/indreview_johnhutton_pensions.htm

¹⁶ <http://www.statistics.gov.uk/statbase/product.asp?vlnk=2328>

¹⁷ In relation to Principle 4 Practices 1 and 5 of the Code of Practice

level work programme, which has been published as part of CPAC's Annual Report.

- 4.12 While the needs of many users are best met through the development of improved measures of inflation, some users require continuity with existing measures. This is the case where a particular measure of inflation is used for compensation purposes in a long-term contract or financial commitment. The need for continuity lies behind the constraints imposed by the *Statistics and Registration Service Act 2007* on the methods that ONS uses to produce the RPI. If ONS wanted to change the methods used to construct the RPI in a way that was detrimental to the holders of index-linked gilts, it could only introduce such changes with the consent of the Chancellor.
- 4.13 These considerations suggest that there may be a need to produce additional measures of inflation in the future; but that ONS also needs to continue to produce existing measures of inflation to meet particular needs. The case for additional measures has to be balanced against the risk of exacerbating the challenge of effective communication. It is possible that these difficulties could be eased if ONS were able to produce a family of different measures of inflation built around a common methodology. At present, the distinct methods used to produce the CPI and RPI add to the difficulties in communicating the different measures effectively.
- 4.14 ONS's high level work programme for the CPI and RPI notes that the CPI is increasingly becoming the main measure of price change. For this reason, ONS plans to attach higher priority to the continuous improvement of the CPI compared with the RPI. ONS plans to consult widely over this work plan. We suggest that, as part of that consultation, and in the context of the further analysis suggested in paragraph 4.10 above, ONS consult users on whether the current proposals for improving the CPI while maintaining the RPI represent a suitable approach to developing improved measures of inflation, while continuing to meet users' needs for existing measures.

5. COMMUNICATING INFLATION

5.1 This section sets out our main findings about how statistics on inflation have been communicated since the new CPI was first introduced in December 2003, and how it might be improved. We have approached this in the following three ways:

- a review of the different publications and other products that ONS has used to communicate statistics on inflation. Our detailed findings are reported in **Annex 4**;
- a review of the way in which statistics on inflation have been reported in the media. The findings from this review are presented in **Annex 5**; and
- we have looked at how inflation statistics are reported in other countries to see if there are any practices that may be helpful in the UK. Our findings are presented in **Annex 6**.

Improving the presentation of and commentary about the statistics

5.2 The main public release of CPI and RPI statistics is through the monthly *Consumer Price Indices* statistical bulletin. In July 2010, ONS published a redesigned release to reduce confusion for users and to ensure that key messages are conveyed clearly. The new release focused on one measure of inflation, the CPI, although it included a section on other measures of inflation based on the RPI with some associated commentary. The redesigned *Consumer Price Indices* statistical bulletin is clearer and better presented than the old release. ONS has since consulted users about the redesigned release and has published its response to this consultation exercise on its website¹⁸. In response to the comments it received, ONS has decided to reinstate the latest RPI 12-monthly rate on the front page of the bulletin.

5.3 ONS publishes additional information in two other monthly publications, *Briefing Notes* and *Focus on Consumer Price Indices*¹⁹. ONS has also occasionally published a News Release to accompany *Consumer Price Indices*. As one user pointed out (Annex 1), there is considerable overlap between these different publications. We suggest that ONS review the need for three separate monthly publications to release these statistics, and consider whether other arrangements would allow these statistics to be communicated more clearly.

5.4 The commentary in the *Consumer Price Indices* statistical bulletin concentrates on the main factors contributing to the latest monthly and annual inflation rates, but rarely refers to wider external developments that may be of relevance. For example:

- The *Consumer Price Indices* statistical bulletin did not fully explain to users the impact that the temporary reduction in VAT had on consumer price indices, when this first affected the figures in December 2008. The

¹⁸ <http://www.ons.gov.uk/about/consultations/closed-consultations/redesign-of-the-consumer-price-indices-statistical-bulletin-2010/index.html>

¹⁹ <http://www.statistics.gov.uk/statbase/product.asp?vlnk=867>

presentation of the effect of the VAT change was improved in the release a year later, when the VAT rate reverted to 17.5 per cent;

- In April 2007, the CPI measure of inflation published for March triggered the first ever letter from the Governor of the Bank of England to the Chancellor to explain why inflation had exceeded the target by more than 1 percentage point. This was not mentioned in the *Consumer Price Indices* statistical bulletin.
- The *Consumer Price Indices* statistical bulletin includes a table that provides a breakdown of the differences between the CPI and RPI, but does not provide any explanation or commentary about the differences, even when these are significant.

- 5.5 In August 2010 ONS published an Information Note on *Differences between the RPI and CPI measures of inflation*²⁰. This provides a clear and helpful summary of the main differences between the RPI and CPI. It includes a chart showing individual contributions to the two different measures of annual inflation for June 2010. We suggest that ONS build on the recent improvements to the redesigned *Consumer Price Indices* statistical bulletin by (a) including additional commentary on specific external developments that have an impact on the indices; (b) drawing attention to any particular significance of the latest figures; and (c) including a clear explanation whenever the difference between the CPI and RPI headline measures of inflation is significant.
- 5.6 The redesigned statistical release no longer presents any international comparisons. Assessment Report 66 on consumer price indices suggested that ONS consider reinstating some international comparisons in the *Consumer Price Indices* statistical bulletin. Commentary on the UK position in terms of international comparisons of inflation rates and trends would help to set the UK narrative in an international context.
- 5.7 The redesigned release includes some new analysis of how the CPI has changed since the previous month – the monthly rate of inflation. However, CPI figures are not seasonally adjusted and this is not explained clearly in the release. The commentary partially addresses this, by comparing the latest monthly changes with the same monthly changes a year ago. ONS told us that it would ensure the presentation of monthly changes to the indices makes clear that the numbers have not been seasonally adjusted and will consider whether more needs to be done to improve the presentation of monthly changes to the indices.

Improving understanding of the uses of statistics on inflation

- 5.8 The *Consumer Price Indices* statistical bulletin concentrates on the uses of these statistics as macroeconomic measures of consumer price inflation. The release provides little discussion of the other uses of these indices, in particular, their uses as compensation indices, although it notes that the RPI is used to index various prices and incomes.
- 5.9 Until recently, the *Consumer Price Indices* statistical bulletin presented RPIX as one of three 'headline' measures of inflation. Our review of media reporting

²⁰ http://www.statistics.gov.uk/downloads/theme_economy/cpi-rpi-information-note.pdf

of statistics on inflation (Annex 5) found that it is uncommon for newspapers to report on RPIX. The background notes in *Consumer Price Indices* describe the nature of RPIX but do not explain its purpose. It is not clear from the release whether RPIX remains a useful alternative measure of inflation to the CPI.

- 5.10 The *Consumer Price Indices* statistical bulletin includes the latest figures for CPIY and RPIY. These measures exclude the effect of indirect taxes. However, it is not clear what uses there are, if any, for having CPIY and RPIY as two separate measures. Nor is it clear whether these measures have any uses for the adjustment of prices, benefits and incomes. It is noticeable that newspapers rarely report on these measures. We suggest that ONS include in the *Consumer Price Indices* statistical bulletin a fuller discussion of the uses and potential uses of the different statistics on inflation, and provide some signposting to further guidance on the suitability of the different indices for particular uses. We also suggest that ONS review the continuing user requirement for RPIX, and for two separate measures that exclude indirect taxation, CPIY and RPIY, and the way these measures are described and presented in *Consumer Price Indices*.
- 5.11 The *Consumer Price Indices* statistical bulletin includes a special aggregate of the CPI, the all items CPI excluding energy, food, alcoholic beverages and tobacco. This is sometimes referred to in the media as a measure of 'core' inflation, although this is not a term used by ONS. The rationale for this special aggregate is that it excludes more volatile elements of the CPI. In response to comments on the redesigned release, ONS has decided to provide commentary on this special aggregate when it considers that this additional briefing would be helpful to users.

Better supporting the news media

- 5.12 Each month, at the time that the latest statistics on inflation are released through the *Consumer Price Indices* statistical bulletin, ONS provides a briefing for journalists about the latest numbers. We see these briefings as an example of good practice in communicating official statistics, allowing ONS to highlight any specific features of the latest statistics that are of particular interest and draw attention to any issues that could, potentially, be a source of confusion.
- 5.13 Although each media outlet and newspaper has its own distinctive approach, there is some common ground. Newspapers routinely publish articles on the latest inflation statistics on the day after they are released. They generally report first on the CPI measure of inflation. This is often accompanied by commentary on the implications of the latest inflation statistics for changes in interest rates. Most papers also routinely report the latest inflation rate as measured by the RPI, and they often mention that the RPI differs from the CPI because it excludes housing costs. The media frequently refer to the RPI as a measure of changes in the cost of living. However, ONS cautions against using consumer price indices in this way (see annex 2). We suggest that ONS produce additional published material for users and journalists on the differences between a consumer price index and a cost of living index.
- 5.14 In 2008, there were concerns about rising prices and the impact that this was having on household budgets. Some newspapers expressed concern that the official measures underestimated the actual rate of inflation and published

their own 'cost of living' indices. They claimed that these measures were more accurate than the official measures of inflation, even though they were based on price changes for a much smaller set of goods and services.

- 5.15 ONS took a number of steps to address the concerns that were being expressed about the official measures. ONS statisticians were interviewed on television and radio to explain the latest inflation statistics. In July and September 2008, ONS also published articles in *Economic and Labour Market Review*²¹ (*ELMR*) that responded to concerns about the inflation statistics. We see these articles as examples of good practice in statistical experts commenting publicly on statistical issues, drawing attention to the strengths of the official measures of inflation compared with the alternative measures that were being disseminated in parts of the media. However, publishing articles in *ELMR* may not be a sufficient means of communicating important messages to a wider audience. We suggest that ONS consider ways of bringing to a wider audience the important messages about inflation statistics that are published in *ELMR*.

Understanding and addressing perceptions of inflation

- 5.16 In January 2007 ONS published an article in *ELMR* on *Inflation – experience and perceptions*²². The article notes that many people think that inflation is higher than that shown by official figures and that this has gone some way to undermine public confidence in them. The paper considers how perceptions of inflation can be influenced by changes in the prices of those goods and services that are bought most frequently. It also reviews evidence that suggests that the most frequently bought goods and services have had a higher inflation rate than the published RPI, which may explain why some people perceive inflation to be higher than it is.
- 5.17 At the same time, ONS introduced the personal inflation calculator to allow people to gain a better understanding of how price changes affect them. The personal inflation calculator calculates an inflation rate that matches an individual's own pattern of spending on various categories of goods and services. It then compares an individual's personal inflation rate with the RPI. The personal inflation calculator can be accessed on ONS's website and also on the BBC's website. It has received some favourable coverage in the media. One possible disadvantage of the personal inflation calculator, is that its accuracy is only as good as the expenditure estimates that are provided by the user. In practice, many people may find it difficult to remember exactly how much they have spent on food, clothes and alcohol in the previous month. We suggest that ONS evaluate how effective the personal inflation calculator has been in addressing perceptions of inflation.
- 5.18 Annex 6 explains that other countries also have to deal with the problem of public perceptions of inflation that differ from official measures. To help address this problem, Germany produced an Index of Perceived Inflation (IWI) in September 2005, backdated to 1997. This index calculates the inflation rate the public is likely to think they are experiencing by making certain assumptions based on the insights of perception psychology. The index attaches a greater weight to price rises than to price reductions, and to more frequently purchased products than to less frequently purchased products. We think the German

²¹ <http://www.statistics.gov.uk/elmr/>

²² http://www.statistics.gov.uk/elmr/01_07/

index represents an interesting approach to exploring public perceptions of inflation. We suggest that ONS consider, with users, whether there are any lessons for the UK from the German index of perceptions of inflation that might supplement the work that ONS has already carried out on the way in which inflation is perceived.

ANNEX 1

WHAT USERS TOLD US FOR THE ASSESSMENT OF CONSUMER PRICE INDICES

- A1.1 As part of the assessment of compliance with the *Code of Practice for Official Statistics*, the Assessment team seeks the views of various users of the statistics. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare assessment reports.
- A1.2 For the assessment of consumer price indices, we asked users for their views about the way in which ONS communicates measures of inflation. Many users expressed satisfaction with the commentary in the *Consumer Price Indices* statistical bulletin and said that it is sufficient to meet their needs or that they have experienced no problems.
- A1.3 Some users provided positive feedback from their personal experience of communicating directly with ONS. These users commented on how comprehensively and promptly ONS replied to requests for information and how responsive and knowledgeable they found the producer team to be.
- A1.4 A few users expressed some dissatisfaction with particular aspects of the consumer price indices. Although these views were not representative of the users we approached, it is helpful to record their views, since they highlight some areas where it may be possible to improve the way in which official statistics on inflation are communicated. The main concerns expressed can be summarised as follows:
- Concern that having two separate measures of inflation that use different criteria and methodologies is confusing. This is a particular problem when the two measures diverge significantly, which is difficult to explain to others. One user noted particular difficulty in explaining the difference in the two measures of annual inflation that can be attributed to the formula effect (discussed in Annex 3) and would prefer a 'family of series based on a common (best possible) methodology'.
 - Concern over the value of three separate monthly publications on consumer price indices, *Consumer Price Indices*, the *Briefing Note* and *Focus on Consumer Prices*. There is considerable overlap between these different publications. One user suggested that ONS should produce just two publications, a short overview release followed by a longer more in-depth publication.
 - Concern about the accessibility of these statistics on ONS's website, which makes it difficult to find certain information, for example, on the differences between the various series.
 - Some concern over the commentary. Major factors affecting the annual change in price levels, such as the change in VAT, are not fully explained.

- One user said that it would be very useful for the *Consumer Price Indices* statistical bulletin to include annual averages in the table for 'CPI, RPI and other selected indices'.
- Concern that the decisions in 2003 (see Annex 3) were not clearly communicated to the public. One user considered that the announcement of the new CPI resulted in the RPI being 'seriously demoted'. The user considered this 'demotion' to be justified because of 'flawed methods' used to construct the RPI. This user argued that more should have been done at the time to draw attention to the deficiencies in the RPI; and would prefer ONS now to stop presenting the RPI as a suitable measure of inflation.

ANNEX 2

THE ORIGINS AND USES OF THE DIFFERENT MEASURES

A2.1 The *Consumer Price Index Technical Manual*²³ notes that the uses to which UK consumer price indices have been put have helped to shape their development. This Annex provides a brief history of how UK consumer prices have developed over the last 100 years and summarises the main uses to which these measures are put.

History of UK Consumer Price Indices

A2.2 The first index of consumer prices was produced in 1914 as a cost of living index rather than as a measure of inflation. It was introduced as an aid towards protecting ordinary workers from what were initially expected to be temporary economic consequences of the First World War. This index was produced throughout the 1920s and 1930s, although the weights attached to different items of expenditure in the index were not updated and became increasingly out-of-date.

A2.3 In 1946 a Cost of Living Advisory Committee was set up to advise on revisions to the old cost of living index. This resulted in an Interim Index of Retail Prices being introduced in June 1947 and then replaced in 1956 by the first official Retail Prices Index (RPI). The RPI has been published continuously ever since. After relatively minor changes in the 1960s and 1970s, an advisory committee was convened in the early 1980s whose recommendations largely form the basis of the current RPI including definition, scope and coverage.

A2.4 The RPI was first developed as a 'compensation index' and only later became used as a measure of inflation. In 1975 the government produced an alternative consumer price index, based on the all items RPI, which later became known as RPIX. This was the all items Retail Prices Index excluding mortgage interest payments and is sometimes referred to as a measure of the 'underlying rate of inflation'. In 1992 the UK government adopted RPIX as the operational measure for a new, specific target for the rate of inflation.

A2.5 In 1989 responsibility for producing the RPI moved from the Employment Department to the newly organised Central Statistical Office (CSO), which subsequently became ONS. In 1995 ONS produced RPIY, the all items Retail Prices Index excluding mortgage interest payments and indirect taxes.

A2.6 In 1997 ONS published a new consumer price index, the UK Harmonised Index of Consumer Prices (HICP). The HICP was developed as a comparable measure of inflation across European Union (EU) Member States. The HICP was and still is used to assess which EU Member States pass the inflation convergence criterion for membership of Economic and Monetary Union (EMU). The HICP is also used by the European Central Bank to assess price stability in the euro area. In December 2003, the National Statistician announced that the UK HICP would be named the CPI, at the same time as the Chancellor announced that the new CPI would become the government's operational measure for its inflation target.

²³ <http://www.statistics.gov.uk/statbase/product.asp?vlnk=2328>

Uses of Consumer Price Indices

A2.7 The *Technical Manual* distinguishes between the following uses of consumer price indices:

- (a) As a macroeconomic measures of inflation. Since 1992 UK governments have based their economic policies around targeting specific rates of inflation.
- (b) As a deflator of expenditure measures. For many purposes, comparisons of economic series are more useful when the effect of price changes is eliminated. ONS uses the RPI, the CPI and their components to adjust current levels of economic series to produce a constant price series. This is typically done by deflating (or dividing) estimates of expenditure at current prices by the appropriate consumer price index.
- (c) For income adjustment and price adjustment. The CPI and RPI are frequently taken into account in wage bargaining. Some pay agreements explicitly link pay rises to these indices. The RPI is currently used to index many allowances and public sector benefits. The Chancellor has announced his intention to use the CPI rather than the RPI for the indexation of benefits, tax credits and public service pensions from April 2011²⁴. Many private contracts link payments due, such as rent, to the change in the RPI or the CPI. Certain regulated privatised utilities have their prices constrained to rise by no more than a rate dependent on the RPI.

A2.8 Consumer price indices are sometimes referred to as 'compensation indices'. This refers to the different uses of the indices, by both the public and the private sector, for income adjustment and price adjustment, as in (c) above. The various adjustments to prices, benefits and incomes are made to compensate for the way in which consumer price inflation would otherwise erode the value of these prices and incomes.

A2.9 ONS documents occasionally refer to the fact that the origins of the RPI lie in its use as a compensation index. However, ONS's *Technical Manual* does not make any specific reference to the term 'compensation index', and ONS tend to prefer to refer instead to price and income adjustment. As mentioned above, the first index of consumer prices was produced in the UK in 1914 as a cost of living index rather than as a measure of inflation. The *Technical Manual* states that neither the CPI nor the RPI are intended as measures of 'cost of living':

The CPI and RPI are specifically not intended to measure what people often refer to as 'the cost of living'. In popular usage, what this means is ill defined. Some use it to mean a measure of the cost of buying sufficient quantities of various items to maintain some minimal standard of living. However, defining this standard is very subjective ... Another definition is an index calculated as at present but restricted to basic essentials. However, it would be difficult to reach a consensus on what constitutes 'basic essentials'.

²⁴ See Press Notice 1: Main Budget Announcements:
http://www.hm-treasury.gov.uk/d/junebudget_press_notice1.pdf

ANNEX 3

THE ANNOUNCEMENT ABOUT THE NEW CPI IN 2003: HOW IT WAS PRESENTED AND HOW IT WAS RECEIVED

A3.1 The National Statistician announcement that the HICP was to be renamed the CPI was made through a News Release²⁵. It was accompanied by a detailed ONS paper, *The New Inflation Target: The Statistical Perspective*²⁶ which described the statistical background to the CPI. ONS published this paper to raise understanding of the UK's new target measure for inflation. The paper represented an important element of ONS's approach to communicating the new measure of inflation.

A3.2 The paper summarised the history of the RPI and CPI and described the similarities and differences in the methods used to produce them. It explained why RPIX had previously been adopted as the basis for the inflation target, rather than the RPI:

From a monetary policy perspective, the short-term impact of interest rate changes on the RPI is perverse. For example, action taken to reduce inflation by increasing interest rates increases the RPI initially. This is because the direct impact of increased mortgage interest payments is felt immediately, dominating for a period the more gradual reduction in price pressures for other goods and services that usually follows an increase in interest rates.

A3.3 *The New Inflation Target* compared the different rates of inflation shown by CPI and RPIX. This showed that between 1989 and 2003 CPI inflation was, on average, 1.1 percentage points lower than RPIX, although the paper noted that the period covered was too short for this difference to be considered the long run deviation.

A3.4 The paper analysed the main factors contributing to the average difference between the two measures and identified two main contributing factors:

- The exclusion of council tax and most components of owner-occupiers' housing costs from the CPI reduced CPI inflation by 0.56 percentage points relative to RPIX on average, although the impact was highly variable, ranging from -0.13 to -1.32 between 1989 and 2003;
- The different techniques used to combine together the individual prices have, on average, lowered CPI inflation by 0.51 percentage points. This is known as the 'formula effect' which arises because RPIX uses the arithmetic mean whereas the CPI uses the geometric mean. The impact of the formula effect has been relatively stable, ranging from -0.41 to -0.68 percentage points.

As mentioned in paragraph 3.2(ii) in the main body of this Monitoring Brief, The impact of the formula effect has increased since the New Inflation Target was published, and now stands at around 0.9 percentage points.

²⁵ <http://www.statistics.gov.uk/pdfdir/pbr1203.pdf>

²⁶ <http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=10913>

A3.5 The paper presented ONS's views on the respective merits of the CPI and RPIX as macroeconomic indicators of inflation. It said that the CPI's later and explicit development as a macroeconomic indicator meant that it had some distinct advantages over RPIX, as follows:

- The CPI benefits from greater coherence with other macroeconomic data, reflecting its foundation in National Accounts principles in determining its scope and population.
- The use of the geometric mean averaging technique has advantages, and is increasingly preferred in other countries. RPIX's use of the arithmetic mean can give rise to certain biases. Also, in the context of cross-country comparisons, the geometric mean is much less influenced by detailed differences in index and sample design in individual countries.

A3.6 Against this, the paper stated that:

...at present one key advantage of the RPI and its derivatives such as RPIX is their familiarity and credibility built upon a long history. This impacts on public perception and so adds to their acceptability as measures of inflation. By definition, this type of credibility takes time to build, and it will inevitably be some period before the CPI becomes as widely recognised. It is intended that this paper will help in this process.

A3.7 An important difference between the CPI and the all-items RPI is owner-occupiers' housing costs, which are excluded from the CPI but are included in the RPI. The paper noted that the exclusion of owner-occupiers' housing costs from CPI was a disadvantage for its use as a macroeconomic indicator of inflation. This disadvantage also applies, in part, to RPIX, which excludes mortgage interest payments, although it does include a range of other elements of owner-occupiers' housing costs. Although the all-items RPI includes owner-occupiers' housing costs, *The New Inflation Target* suggested that their inclusion necessitated 'significant compromises in conceptual consistency'.

A3.8 *The New Inflation Target* described a number of difficult statistical challenges concerning the appropriate treatment of owner-occupiers' housing costs in consumer price indices and noted that there was no national or international consensus on how this should be done. The paper mentioned a Eurostat study investigating the possibility of extending the scope of HICP to include owner-occupiers' housing costs, but warned that such an extension 'is not likely to take place before January 2006 at the earliest, and could take longer'. This has proved to be the case. CPAC's Annual Report sets out the latest position on UK plans to incorporate owner occupiers' housing costs into the CPI.

A3.9 *The New Inflation Target* was primarily concerned with the relative merits of the CPI and RPIX as macroeconomic measures of inflation. However, it also included some analysis of the relative merits of the CPI and RPI as compensation indices. There is an implicit suggestion in the paper that the RPI may be more suitable as a compensation index, since it was originally developed for this purpose, whereas the CPI was explicitly developed as a macroeconomic measure of inflation. The paper also noted that the RPI

would continue to be used as a compensation index (although it did not use that specific term), since the Chancellor had confirmed in his Pre-Budget speech that the uprating of pensions and benefits would continue to be calculated as before, with reference to the all-items RPI and its derivatives.

A3.10 The paper offers the following definition of standard of living, which relates to the relative merits of the CPI and RPI as compensation indices:

Avoiding value judgements about what constitutes a reasonable or minimum acceptable standard of living, a cost of living can be defined as the minimum expenditure (or income) a consumer faced by rising prices requires to achieve the same level of utility as in some earlier period, relative to their expenditure (or income) in the earlier period.

A3.11 The paper then explains why the use of fixed-basket consumer price indices as compensation indices will tend to result in over-compensation, because they do not take into account how consumers may respond to rising prices:

...a price index based on a fixed basket of goods and services overstates the extent to which consumers' expenditure or income must rise in order to maintain constant utility as prices rise... so long as consumers have a choice, they can always achieve a given standard of living at lower cost by varying the relative quantities of the goods they purchase, compared to simply increasing overall spending on a fixed bundle of goods.

A3.12 The paper explains that this potential problem is minimised in both the RPI and the CPI by the regular updating of the contents of the baskets and the associated expenditure weights. The paper also explains that possible consumer substitution between products when relative prices change is directly related to the choice between the geometric mean and the arithmetic mean to combine prices in a compensation index. The paper demonstrates that the use of the geometric mean formula (as in the CPI) is consistent with consumers switching to cheaper alternatives, whereas the use of the arithmetic mean is consistent with no switching²⁷. The paper does not draw any explicit conclusions from this analysis on the relative merits of the CPI and RPI as compensation indices, although a qualified reference in a footnote that the 'use of the GM formula is more consistent with the cost of living index' could be interpreted as coming down on the side of the CPI.

A3.13 The main points to note from this analysis of *The New Inflation Target* are as follows:

- The *New Inflation Target* presents ONS's views on the respective merits of the CPI and the RPI as measures of inflation. It explains why ONS prefers the CPI measure;
- ONS notes that the exclusion of owner-occupiers' housing costs from the CPI is a disadvantage that needs to be addressed;

²⁷ Technically, the geometric mean formula is consistent with an elasticity of substitution between goods of 1, and the arithmetic mean is consistent with an elasticity of substitution of zero. *The New Inflation Target* points out that, in practice, the elasticity of substitution between particularly products is likely to vary.

- A key advantage of the RPI over the CPI is its familiarity and credibility built on a long history. ONS anticipates the CPI achieving the same credibility as the RPI, although it recognises that this will take time;
- ONS presents mixed evidence on the respective merits of the CPI and RPI as compensation indices.

Reactions in the Press

A3.14 The Chancellor's announcement in December 2003 that he was switching from RPIX to CPI was anticipated the previous April when he said in his Budget speech that he was considering such a change. An article in the Daily Telegraph in June 2003 expressed concern that a move from RPI could undermine public confidence in statistics. The article noted that the current inflation target of 2.5 per cent for the RPIX could be changed to 2 per cent for the HICP:

The trick is possible because the HICP contains nothing to reflect changing housing costs. Where the RPI is effectively a cost of living index, the HICP is a measure of shop price inflation. It's all frightfully clever but it risks undermining confidence in statistics. If people no longer believe that the official figure is a fair reflection of inflation, the damage will be much greater than any gain from lower interest rates.

A3.15 On the day of the announcement in December, the BBC published an article on its website²⁸ that explained what the HICP is, how it differs from RPIX and presented a chart showing how the different measures of inflation had compared over the previous 10 years. The Times also summarised the main differences between HICP and RPIX although it didn't mention that the name of the HICP had been changed to CPI²⁹. The following week the Guardian published an article³⁰ noting that the UK had gone from one measure of inflation in the 1970s to five by 2003, "each measuring something different". It noted that the new CPI measure was the lowest of them all, "in part because statisticians are using a new methodology...but mainly because the CPI excludes all housing costs".

A3.16 Our analysis of press reactions is not comprehensive, since it is based on an internet search and is restricted to articles from that time that are still readily available. The main points to note from this review of press reactions to the announcements in 2003 are as follows:

- There was widespread reporting of the CPI as a new measure of inflation, based on international standards and separate from the RPI;
- The reporting explained that the government's inflation target was changing from 2.5 per cent for RPIX to 2 per cent for the new CPI;
- The main difference between the CPI from the RPI was reported to be housing costs and this is presented as the main reason why the CPI measure of inflation is lower than the RPI measure. We could not find any reference to the formula effect;

²⁸ BBC 10 December, 2003, <http://news.bbc.co.uk/1/hi/business/3188470.stm>

²⁹ Times Online, 14 June, 2003, <http://www.timesonline.co.uk/tol/money/article1141395.ece>

³⁰ <http://www.guardian.co.uk/business/2003/dec/17/politics.economicpolicy>

- There was considerable interest in whether the change from a 2.5 per cent target for RPIX to a 2 per cent target for CPI meant that interest rates would fall;
- We did not find any discussion of the advantages of CPI, as described in ONS's *New Inflation Target*;
- There was some concern that the adoption of CPI could undermine public confidence in the official measure of inflation.
- The media started to report on the CPI as the main measure of inflation, although they also continued to report on changes in the RPI.

ANNEX 4

THE CURRENT PUBLICATIONS

A4.1 This section presents our findings from a review of the different publications and other products that ONS uses to communicate statistics on inflation. The main public release of CPI and RPI statistics is through the monthly *Consumer Price Indices* statistical bulletin. ONS publishes additional information in two other monthly publications, *Briefing Notes* and *Focus on Consumer Price Indices*³¹. ONS disseminates these statistics in different ways on its website. The latest statistics are summarised in a single webpage³² (a 'nugget') which also provides various links to related information sources. Time series for the different sets of consumer price indices can be downloaded from the Time Series Data area of ONS's website. From time to time, ONS publishes articles on these statistics on its website that address specific topics that are of particular interest. *The New Inflation Target* is an example of such an article.

The Consumer Price Indices statistical bulletin

A4.2 ONS first published the *Consumer Price Indices* statistical bulletin in February 1999³³ when it brought forward the release date of HICP to coincide with the release date for the RPI. The front page reported the headline changes to the RPI, RPIX and HICP. It also included a chart presenting recent trends in the three measures of inflation and a table showing figures for all three indices over the previous six months.

A4.3 In March 2000 ONS added a set of more detailed tables to the *Consumer Price Indices* statistical bulletin at the end of the publication. These presented a range of different statistics on the RPI, the HICP and various sub indices over a three year period, and included a table showing some international comparisons.

A4.4 In July 2010, ONS published a redesigned *Consumer Price Indices* statistical bulletin³⁴. This was the first significant redesign of the release since it was first introduced in 1999. The new release focused on one measure of inflation, the CPI, although it included a section on other measures of inflation based on the RPI with some associated commentary. The background notes to the release explained that the changes were introduced to reduce confusion for users and to ensure that key messages are conveyed clearly.

A4.5 The commentary and charts in the old release analysed the 12-month change in the CPI, the RPI and RPIX in three different ways:

- (a) The main contributions to the change in the 12-month rate from the latest month to the previous month. So if the headline rate of annual inflation has risen by 0.4 percentage points since the previous month, how is that rise apportioned across the different expenditure divisions.
- (b) A comparison of the 12-month percentage changes across each of the different expenditure divisions.

³¹ <http://www.statistics.gov.uk/statbase/product.asp?vlnk=867>

³² <http://www.statistics.gov.uk/cci/nugget.asp?ID=19>

³³ <http://www.statistics.gov.uk/pdfdir/cpi0299.pdf>

³⁴ <http://www.statistics.gov.uk/pdfdir/cpi0710.pdf>

- (c) The main contributions to the 'headline' increase in the index over 12 months. So if the 12-month rate shows an annual inflation rate of 3.4 per cent, how is that increase apportioned across the different expenditure divisions.

A4.6 Communicating these developments is challenging, since it is difficult for many users to conceptualise these distinctions. Some of the main changes that ONS has introduced in the new release to communicate these developments more clearly are as follows:

- ONS simplifies the task of communication by focusing on the CPI rather than the RPI and RPIX;
- The new release achieves a better alignment between the commentary and associated charts;
- Item (a) above is presented as before, but items (b) and (c) are presented alongside each other, making it easier to understand the different types of information being conveyed;
- The new release includes some new analysis of how the CPI has changed since the previous month – the monthly rate of inflation. The release presents this analysis before presenting a similar analysis of the annual rate of inflation.

A4.7 Many of the data tables in the old release have been removed, but are still published on ONS's website and the release includes a link to these pages. The redesigned statistical release no longer presents any international comparisons. Assessment Report 66 on consumer price indices suggested that ONS consider reinstating some international comparisons in the *Consumer Price Indices* statistical bulletin. Commentary on the UK position in terms of international comparisons of inflation rates and trends would help to set the UK narrative in an international context.

A4.8 Media and public interest in inflation focuses on the annual rate of inflation and how this has changed since the previous month. The advantage of presenting the monthly rate in the redesigned release is that this focuses on the new information in the release. However, CPI figures are not seasonally adjusted and this is not explained clearly in the release. The commentary partially addresses this, by comparing the latest monthly changes with the same monthly changes a year ago. ONS told us that it would ensure the presentation of monthly changes to the indices makes clear that the numbers have not been seasonally adjusted and will consider whether more needs to be done to improve the presentation of monthly changes to the indices.

A4.9 ONS has recently consulted users about the redesigned release and has published its response to this consultation exercise on its website³⁵. In response to the comments it received, ONS has decided to reinstate the latest RPI 12-monthly rate on the front page of the bulletin.

³⁵ <http://www.ons.gov.uk/about/consultations/closed-consultations/redesign-of-the-consumer-price-indices-statistical-bulletin-2010/index.html>

Information Note on Differences between the RPI and CPI measures of inflation

- A4.10 In August 2010 ONS published an Information Note on *Differences between the RPI and CPI measures of inflation*³⁶. The note was produced in response to the Chancellor's announcement in June of the government's intention to adopt the CPI for the indexation of benefits, tax credits and public service pensions from April 2011. ONS anticipate this decision will result in much closer scrutiny of the differences between the CPI and RPI. The Note provided a brief summary of the main differences between the two measures. It also said that ONS plans to produce more detailed analyses of these differences for publication in the near future.
- A4.11 The analysis presented in this Information Note provides a clear and helpful summary of the main differences between the RPI and CPI. It includes a chart showing individual contributions to the two different measures of annual inflation for June 2010. We consider that there would be value in ONS including a clear explanation in the *Consumer Price Indices* statistical bulletin whenever the differences between the CPI and RPI headline measures of inflation is significant.

News Releases on Consumer Price Indices

- A4.12 Each month, at the time that the latest statistics on inflation are released through the *Consumer Price Indices* statistical bulletin, ONS provides a briefing for journalists about the latest numbers. We see holding these briefings as an example of good practice in communicating official statistics, allowing ONS to highlight any specific features of the latest statistics that are of particular interest and draw attention to any issues that could, potentially, be a source of confusion.
- A4.13 Sometimes ONS publishes a News Release to accompany the *Consumer Price Indices* statistical bulletin. This practice started in January 2006 when ONS published a News Release³⁷ that carried the headline 'Fall in inflation is driven by transport'. The release described the main factors that had contributed towards the change in the CPI measure of annual inflation since the previous month. From that point onwards, further monthly News Releases were issued through to March 2007. Further releases were published each month between October 2008 and November 2009, although no New Release has been issued since then.
- A4.14 In some months, a News Release is issued even though there does not appear to be anything particularly noteworthy to report. For example, the headline in the release in February 2006 is simply "Inflation unchanged despite transport pressures". In other months, no News Release is issued, even though the new figures may have a particular significance. For example, no release was issued in April 2007 even though the CPI measure of inflation published that month triggered the first ever letter from the Governor of the Bank of England to the Chancellor to explain why inflation had exceeded the target by more than 1 percentage point. ONS told us that the decision to stop the News Release at the end of 2009 was taken because it was felt that it did not add to the package of information already provided. It included information that was already provided in the nugget.

³⁶ http://www.statistics.gov.uk/downloads/theme_economy/cpi-rpi-information-note.pdf

³⁷ <http://www.statistics.gov.uk/pdfdir/cpinr0106.pdf>

Supplementary Information and analysis provided by ONS to communicate measures of inflation

A4.15 In January 2007 ONS published a news release³⁸ that announced the publication of ‘an information package to improve public understanding of inflation measures’. These comprised the following articles that were published in the first edition of ONS’s new *Economic and Labour Market Review*³⁹:

- *Keeping the RPI and CPI basket of goods and services – how and why the items are chosen*

This article describes the process for reviewing the different items that are included in the CPI and RPI baskets to ensure that they are representative of consumer spending patterns

- *Inflation – experience and perceptions*

This article notes that many people think that inflation is higher than that shown by official figures and that this has gone some way to undermine public confidence in them. The paper considers how perceptions of inflation can be influenced by changes in the prices of those goods and services that are bought most frequently. It also reviews evidence that suggests that the most frequently bought goods and services have had a higher inflation rate than the published RPI, which may explain why some people perceive inflation to be higher than it is.

- *The Personal inflation calculator*

This article describes the personal inflation calculator which ONS was introducing on the same day.

A4.16 ONS introduced the personal inflation calculator to allow people to gain a better understanding of how price changes affect them. This was developed to help address the misperception of inflation discussed in *Inflation – experience and perceptions* (bullet 2 above). The personal inflation calculator calculates an inflation rate that matches an individual’s own pattern of spending on various categories of goods and services. It then compares an individual’s personal inflation rate with the RPI. The personal inflation calculator can be accessed on ONS’s website and also on the BBC’s website.

A4.17 The personal inflation calculator received some favourable coverage in the media. *Scotland on Sunday*⁴⁰, for example, said that it gives “a more individualised idea of how inflation affects you.” The ONS team responsible for its development received an award for delivering a successful public service⁴¹. ONS told us that it had not received any criticism of the calculator, even with the increased usage stemming from its availability on the BBC website.

A4.18 One possible disadvantage of the personal inflation calculator is that the accuracy of the personal inflation calculator is only as good as the expenditure estimates that are provided by the user. In practice, many people may find it

³⁸ <http://www.statistics.gov.uk/pdfdir/elmr0107.pdf>

³⁹ http://www.statistics.gov.uk/elmr/01_07/

⁴⁰ *Scotland on Sunday*, 17 May 2008, <http://scotlandonsunday.scotsman.com/business/Shop-smart-to-beat-the.4095124.jp>

⁴¹ http://www.uk-ace.org.uk/downloads/ACE_Delivering_successful_services.pdf

difficult to remember exactly how much they have spent on food, clothes and alcohol in the previous month. We suggest that ONS evaluate how effective the personal inflation calculator has been in addressing perceptions of inflation.

ANNEX 5

REVIEW OF MEDIA REPORTING OF STATISTICS ON INFLATION

A5.1 From December 2003 until June 2010 the *Consumer Price Indices* statistical bulletin presented three different headline measures of inflation, the CPI, the RPI and RPIX. We have analysed the way in which the media have reported the statistics on inflation over this period, based on a search on the internet for articles that are still readily available. We focused on the following three periods since the introduction of the new CPI in 2003:

- The widening gap between the CPI and the RPI in 2006;
- Concerns over rising inflation in 2008; and
- Changes to the standard rate of VAT in December 2008 and January 2010.

Concerns over the widening gap between the CPI and the RPI in 2006

A5.2 At the start of 2006 there was little difference in the rate of inflation as measured by the CPI, the RPI and RPIX. However, by November the gap between the CPI and the RPI had widened to 1.2 percentage points and this started to attract unfavourable headlines. In December 2006 under the headline 'its hard to get the measure of inflation', the Daily Telegraph⁴² complained about the 'acronym soup' of alternative definitions of inflation and identified the growing divergence between the different measures as a problem.

A5.3 The article attributed the widening gap to sharp rises in council tax, included in the RPI but not the CPI, and to the RPI's 'more realistic weighting' of fuel and energy spending. It also referred to the RPI as a superior measure of inflation to the CPI, which is why it continues to be used for wage bargaining. An analysis of the figures published in the *Consumer Price Indices* statistical bulletin suggests that council tax and fuel and energy spending had not been the most significant reasons for the 1.2 percentage point gap between the CPI and the RPI measures of inflation in November 2006. Mortgage interest payments made a much more significant contribution than council tax; and although both the CPI and the RPI show large price increases in fuel and energy prices, these items were given very similar weightings in both indices, and therefore these price rises had not contributed to the gap between the two measures.

A5.4 The commentary that accompanies the release of these statistics did not address the reasons why the gap between the two measures had widened during 2006. Instead, and in line with the standard format for commenting on the latest results in the *Consumer Price Indices* statistical bulletin, it concentrated on the main factors contributing to the latest annual inflation rate shown by each of the three headline measures, and why these measure had changed since the previous month. The *Briefing Note* provided some limited commentary on the differences between CPI and RPI, but this concentrated on how the gap had changed since the previous month (a fall of 0.3

⁴² The Daily Telegraph, 17 December 2006, <http://www.telegraph.co.uk/finance/migrationtemp/2952517/Its-hard-to-get-the-measure-of-inflation.html>

percentage points) rather than an analysis of what was contributing to the 1.2 percentage point gap between the two measures.

- A5.5 We suggest that ONS include clear explanation in the *Consumer Price Indices* statistical bulletin whenever the difference between the CPI and the RPI headline measures of inflation is significant. This could be accompanied by a chart, similar to the chart included in the Information Note of August 2010 on *Differences between the RPI and CPI measures of inflation* (see paragraphs 5.5 and A4.10 to A4.11).

Concerns over rising inflation in 2008

- A5.6 CPI Inflation stood at 2.2 per cent in January 2008 and then rose in each consecutive month until it reached 5.2 per cent in September. These increases were accompanied by a growing number of reports in the media expressing concern about rising inflation. Some newspapers also expressed concern that the official measures of inflation were underestimating actual inflation and started to publish alternative measures. These were often referred to as cost of living indices.

- A5.7 In April 2008 the Daily Mail produced its own Cost of Living Index⁴³ which suggested that inflation was six times higher than government figures:

[The CPI] fails to reflect the real problems in homes up and down the country because it includes the cost of luxury items such as flat-screen TVs, whose prices are falling. It also fails to take increased housing costs into account.

- A5.8 In June 2008 the Daily Telegraph published its own index called the 'Real Cost of Living Index' (RCLI). It argued that neither the CPI nor the RPI were trustworthy and that the rapidly rising cost of living was much worse than what was shown by the official statistics:

As it stands, the RCLI shows a mixed basket of household bills, food and transport costs have risen by an average of 9.5 per cent over the last year. That is more than treble the official measure of inflation and more than double the Retail Price Index (RPI).⁴⁴

- A5.9 The article went on to criticise the exclusion of mortgage interest payments from the CPI and suggested that there may be political reasons for excluding council tax.

- A5.10 During this period the Daily Mirror also reported on alternative measures of the cost of living suggesting that it was six times higher than the official measure of inflation in April 2008 and four times higher in June 2008. In July 2008 the Guardian published an article criticising the figures published by the Mirror, noting that they were based on a very limited number of items compared with the 100,000 prices collected by ONS on 650 goods and services in its basket.

⁴³ Daily Mail, 18 April 2008, <http://www.dailymail.co.uk/news/article-560392/The-REAL-cost-inflation-The-Mails-Cost-Living-Index-reveals-food-prices-rising-SIX-times-official-figure.html>

⁴⁴ Daily Telegraph, 17 June 2008, <http://www.telegraph.co.uk/finance/personalfinance/2791738/Governments-measure-of-inflation-might-as-well-stand-for-Chinese-Prices-Index.html>

A5.11 ONS told us that around this time ONS statisticians were interviewed on television and radio about the latest inflation statistics. In July 2008 ONS also published a short article in the *Economic and Labour Market Review (ELMR)*⁴⁵ *Measuring inflation*. This responded to the concerns being expressed in the media that people are seeing bigger rises in prices than suggested by the official measures. The article explained how the official figures are calculated and considered some of the reasons why some people may think that the estimate of inflation should be higher. The article argued that the cost of living indices being produced by newspapers do not always represent average price moves:

For example, the price of tea bags was shown as rising by 67 per cent, whereas the official data, which is based on 130 price quotes covering 20 different brands, show a rise of less than 5 per cent.

A5.12 ONS published a more detailed paper in *ELMR* in September 2008⁴⁶. This covered the same ground as the earlier paper, but also presented further evidence suggesting that the goods which people buy more frequently had been rising faster than the goods which people buy less frequently. This contributed to the perception that inflation is higher than the official estimates suggest. The article also included some analysis on the different rates of inflation experienced by different income groups and by different household types. So, for example, it estimated an inflation rate of 4.3 per cent for households of two adults and two children but a rate of 5.1 per cent for pensioner households largely dependent on state pensions or benefits.

A5.13 The Daily Mail continued to report on its Cost of Living Index after the ONS articles had been published; the Daily Telegraph only reported on its Real Cost of Living Index sporadically, and we can find no further mention in the Daily Mirror to its own index. It is not clear whether the decline in the reporting of these alternative indices was influenced by the ONS articles, or because the annual inflation measures started to fall after September 2008.

A5.14 The two *ELMR* articles produced by ONS are examples of good practice in statistical experts in government commenting publicly on statistical issues, drawing attention to the strengths of the official measures of inflation compared with the alternative measures being disseminated in parts of the media. However, publishing these articles in *ELMR* may not be a sufficient means of communicating important messages to a wider audience. We suggest that ONS consider ways of bringing to a wider audience the important messages about inflation statistics that are published in *ELMR*.

A5.15 The other point to note from the above analysis is the way in which consumer price indices are reported in the media as an indicator of changes in the cost of living. The CPI technical manual states that the CPI and the RPI are not intended to measure the cost of living (see Annex 3), at least in part because the term 'cost of living' is ambiguous. Newspapers tend not to make any clear distinction between what is meant by cost of living and what is meant by consumer price inflation. Indeed, it is fairly common practice for newspapers to differentiate between the CPI as the measure of macroeconomic inflation that is used by the Monetary Policy Committee to set interest rates; and the RPI as a measure of changes in the cost of living. We suggest that ONS produce

⁴⁵ http://www.statistics.gov.uk/elmr/07_08/downloads/ELMR_Jul08_Pike.pdf

⁴⁶ http://www.statistics.gov.uk/elmr/09_08/downloads/ELMR_Sep08_Marks.pdf

additional published material for users and journalists on the differences between a consumer price index and a cost of living index.

- A5.16 During this time, the media did not normally report on RPIX, although this continued to be presented in the *Consumer Price Indices* statistical bulletin as one of the three 'headline' measures of inflation. The redesigned statistical bulletin (see Annex 4) no longer presents RPIX as one of the three 'headline' measures of inflation. The background notes in the *Consumer Price Indices* statistical bulletin describe the nature of RPIX but do not explain its purpose. It is not clear from the release whether RPIX remains a useful alternative measure of inflation to the CPI. We suggest that ONS review the continuing user requirement for RPIX, and the way it is described and presented in the *Consumer Price Indices* statistical bulletin.

The temporary reduction in the standard rate of VAT

- A5.17 On 1 December 2008 the standard rate of VAT was reduced temporarily from 17.5 per cent to 15 per cent. This resulted in significant reductions in each of the three 'headline' measures of annual inflation for that month, compared with the previous month. Twelve months later this effect dropped out of all three 'headline' measures of inflation causing a step rise in all three measures. The following month, January 2010, the standard rate of VAT reverted to 17.5 per cent causing a further step rise in all three headline measures of inflation.
- A5.18 The *Consumer Price Indices* statistical bulletin for December 2008 was accompanied by a News Release with the headline "VAT change drives 1 per cent fall in inflation". However, the release did not make any direct reference to the impact of the VAT reduction when reporting on changes in the three headline measures of inflation for December. It did mention the reduction in the background notes and referred to its impact when commenting on changes in the various sub-indices of the CPI and the RPI.
- A5.19 No News Release accompanied the *Consumer Price Indices* statistical bulletin for December 2009, when the impact of the VAT reduction fell out of the annual inflation rate, or for January 2010, when the standard rate of VAT reverted to 17.5 per cent. However, *Consumer Price Indices* did clearly explain how the changes in the VAT rate had affected the annual inflation figures being presented. Unusually, *Consumer Price Indices* for January 2010 altered the standard format of the release by including an additional section that provided briefing on the CPI monthly movement between December and January, noting the effect of the VAT change. We think it is good practice for ONS to make changes to the standard format of the *Consumer Price Indices* statistical bulletin to draw attention to particular aspects of the latest statistics that are of particular interest.
- A5.20 None of the editions of the *Consumer Price Indices* statistical bulletins for December 2008, December 2009 and January 2010 provided any commentary on the alternative measures of inflation which exclude the effect of indirect taxes. This would have been of some interest, as these measures exclude the effect of the VAT change. The monthly changes in annual inflation shown by CPIY, CPIY-CT and RPIY all tended to move in the opposite direction from the 'headline' measures. For example, while the CPI measure of annual inflation, inclusive of the VAT change, rose by 1 percentage point in December 2009, CPIY, which excludes the VAT change, fell by 0.3 percentage points.

- A5.21 When indirect taxes are changing, CPIY and RPIY are of particular interest from a macroeconomic perspective, since they show what would have happened to the all items CPI and RPI had the tax changes not taken place. It is less clear whether there is a similar interest in using CPIY and RPIY as compensation indices.
- A5.22 The redesigned statistical release gives very similar descriptions for RPIY and CPIY. Both these measures exclude price changes which are directly due to changes in indirect taxation and both have an identical purpose: “to obtain a better indication of inflationary pressures at times when prices are directly influenced by Government-driven changes”. The *Consumer Price Indices* statistical bulletin says that RPIY is designed to measure movements in ‘core’ prices whereas CPIY is designed to measure movements in ‘underlying prices’. It is not clear what uses there are, if any, for having CPIY and RPIY as two separate measures. Nor is it clear whether these measures have any uses for the adjustment of prices, benefits and incomes. It is noticeable that newspapers rarely report on these measures. We suggest that ONS review the continuing user requirement for two separate measures that exclude indirect taxation, CPIY and RPIY, and review the way in which they are described and presented in the *Consumer Price Indices* statistical bulletin.
- A5.23 We found that the media generally made use of the commentary provided in the *Consumer Price Indices* statistical bulletin in reporting on how the VAT change affected the headline measures of inflation. They reported the CPI and RPI measures of annual inflation but did not normally mention RPIX. We could not find any reference to CPIY, CPI-CT or RPIY in the media coverage of these changes.
- A5.24 Both the Guardian⁴⁷ and the BBC⁴⁸ did refer to a measure of ‘core inflation’, which the Guardian described as excluding ‘things like food and energy prices’. This is a reference to a special aggregate of the CPI, the all items CPI excluding energy, food, alcoholic beverages and tobacco. ONS told us that ‘core’ inflation is a media term for this CPI sub-index but it is not an ONS term. The rationale is that more volatile elements of the indices are removed. The redesigned bulletin reports this series in table 3 and also mentions the latest statistics for this series in a new ‘selected records’ page. However, it does not provide any commentary on the series. The purpose of this special aggregate is not described in the *CPI Technical Manual*. In response to comments ONS has received about the redesigned release, it has now decided to provide commentary on this special aggregate when it considers that this additional briefing would be helpful to users.
- A5.25 Newspapers make regular use of the information highlighted in the commentary that accompanies the release of these statistics in the *Consumer Price Indices* statistical bulletin. This reinforces the need for the commentary to identify the most important features of the new statistics being released.
- A5.26 Until very recently, the format of the bulletin remained unchanged and the commentary followed a set pattern, concentrating on explaining the main contributions to the changes in the CPI and RPI headline measures of inflation. The redesigned *Consumer Price Indices* statistical bulletin now also includes

⁴⁷ The Guardian, 20 January 2009, <http://www.guardian.co.uk/business/2009/jan/20/inflation-consumer-prices>

⁴⁸ BBC website, 19 January 2010, <http://news.bbc.co.uk/1/hi/business/8467305.stm>

some commentary on why the latest measure of inflation over 12 months has changed from the previous month. Sometimes, there would be value in some additional commentary on specific developments that are likely to be of particular interest, such as VAT changes, that have an impact on the indices. There would also be value in the commentary drawing attention to any particular significance of the latest figures, for example, where they trigger a letter from the Governor of the Bank of England to the Chancellor of the Exchequer.

ANNEX 6

INTERNATIONAL PERSPECTIVES

- A6.1 We looked at how inflation statistics are reported in other countries to see if there are any practices that may be helpful in the UK.
- A6.2 The Harmonised Index of Consumer Prices (HICP) is produced by every country in the European Union (EU). It was set up by an initial European Union (EU) Council Regulation that was passed in October 1995, followed up with a series of detailed implementing measures. It was developed as a comparable measure of inflation across EU Member States. The HICP was initially used, and still is, to assess whether prospective member states pass the inflation convergence criterion for adopting the euro as their currency. Since 1999, the European Central Bank (ECB) has used the HICP to judge price stability within the Eurozone.
- A6.3 Each Member State has continued to produce its own domestic measure of inflation, which is generally referred to as its domestic Consumer Prices Index (CPI). Table 1 provides a summary of the different approaches to measuring inflation in EU Member States. The points to note from this table are:
- Many but not all countries include a measure of owner-occupiers' housing costs in its domestic CPI, although different countries use different methods for measuring these costs;
 - Only four countries, including Germany and Italy, calculate regional price indices;
 - There is variation in the number of products covered and the frequency for updating weights in the domestic CPIs;
 - Only two countries, including France, produce seasonally adjusted CPIs.
- A6.4 The UK is unusual amongst Member States in having adopted the HICP as its main domestic measure of inflation for macroeconomic purposes. All other Member States (with the possible exception of Romania), have continued to use their national CPI as their main domestic measure. As a result, other Member States have not faced the same challenges as the UK in communicating a new measure of inflation which has replaced the national measure as the main domestic measure.
- A6.5 Documentation provided for the French CPI⁴⁹ notes that:
- ...the harmonised consumer price indices (HCPIs)...are not substitutes for the national CPIs. They are designed for international comparisons and for the determination of a European Union price index...
- A6.6 The French take that view despite the fact that the French CPI and HICP display very similar movements. The UK also appears to be unusual

⁴⁹ http://www.insee.fr/en/indicateurs/ind29/method_idconj_29.pdf

compared with other countries in experiencing significant differences in the headline measures of annual inflation that it reports.

- A6.7 In addition to the variety of measures used, all countries also have to deal with the problem of public perceptions of inflation that differ from official measures. To help address this problem, Germany produced an Index of Perceived Inflation (IWI) in September 2005, backdated to 1997. This index calculates the inflation rate the public is likely to think they are experiencing by making certain assumptions based on the insights of perception psychology. The index attaches a greater weight to price rises than to price reductions, and to more frequently purchased products than to less frequently purchased products. It also assumes that individuals will not always compare prices with those of exactly a year ago, as national rates do. The IWI showed the German perception of inflation to be particularly high (over four times the real rate) at the time of the introduction of the Euro. We think the German index represents an interesting approach to exploring public perceptions of inflation. We suggest that ONS consider, with users, whether there are any lessons for the UK from the German index of perceptions of inflation that might supplement the work that ONS has already carried out on the way in which inflation is perceived.
- A6.8 Table 2 provides a brief summary of practice amongst G7 countries. The USA has started to produce an experimental version of the HICP to allow international comparisons. The table shows that four of the seven countries produce seasonally adjusted CPIs. The UK and France are the only G7 countries that do not produce regional price indices. The USA produces regional price indices which are often used in escalator clauses of documents such as insurance policies, rental contracts and child support payments. The USA also calculate indices based on certain groups of people, for example the CPI-U for All Urban Consumers and the CPI-W for Urban Wage Earners and Clerical Workers. None of these CPI's include non-urban areas, resulting in about 13% of the population not being covered by the CPIs.

Table 1: Approaches to measuring consumer price inflation in EU Member States

Country	Austria	Belgium	Bulgaria	Cyprus	Czech Republic	Denmark	Estonia	Finland	France
Produces HICP	yes	yes	yes	yes	yes	yes	yes	yes	yes
HICP Used Nationally	no	no	no	no	no	no	no	no	no
Main Inflation Calculator	Austrian CPI	Belgian CPI	Bulgarian CPI	Cyprus CPI	Czech CPI	Danish CPI	Estonian CPI	Finnish CPI	French CPI
Calculated Regionally	no	no	no	no	no	no	no	no	no
Includes Owner Occupied Housing	yes	no	no	yes	yes	yes	no	yes	no
Method For OOH If Used	payments	n/a	n/a	rental equivalent	acquisitions	rental equivalence	n/a	acquisitions	n/a
Covers Entire Population	yes	no	no	no	yes	no	no	yes	no
No Of Products Covered	770	500	600	600	700	500	500	500	1000
Adjusted Seasonally	no	no	no	no	no	no	no	no	yes
Weight Update Frequency	5 years	2 years	1 year	5 years	5 years	5 years	1 year	5 years	1 year
Country	Germany	Greece	Hungary	Ireland	Italy	Latvia	Lithuania	Luxembourg	Malta
Produces HICP	yes	yes	yes	yes	yes	yes	yes	yes	yes
HICP Used Nationally	no	no	no	no	no	no	no	no	no
Main Inflation Calculator	German CPI	Greek CPI	Hungarian CPI	Irish CPI	Italian CPI (NIC)	Latvian CPI	Lithuanian CPI	Luxembourg CPI	Maltese RPI
Calculated Regionally	yes	no	no	no	yes	no	no	no	no
Includes Owner Occupied Housing	yes	no	yes	yes	no	no	no	no	no
Method For OOH If Used	rental equivalent	n/a	rental equivalence	payments	n/a	n/a	n/a	n/a	n/a
Covers Entire Population	yes	no	no	no	yes	yes	no	yes	no
No Of Products Covered	700	800	900	600	1100	500	900	no	600
Adjusted Seasonally	no	no	no	no	no	no	no	no	no
Weight Update Frequency	5 years	sporadic	1 year	5 years	1 year	1 year	1 year	1 year	2+ years
Country	Netherlands	Poland	Portugal	Romania	Slovak Republic	Slovenia	Spain	Sweden	UK
Produces HICP	yes	yes	yes	yes	yes	yes	yes	yes	yes
HICP Used Nationally	no	no	no	yes, since 1999	no	no	no	no	yes
Main Inflation Calculator	Dutch CPI	Polish CPI	Portugese CPI	Romanian CPI (HICP)	Slovakian CPI	Slovenian CPI	Spanish CPI	Swedish CPI	HICP
Calculated Regionally	no	no	yes	no	no	no	yes	no	no
Includes Owner Occupied Housing	yes	no	no	no	yes	no	no	yes	yes
Method For OOH If Used	rental equivalent	n/a	n/a	n/a	user cost	n/a	n/a	user cost	user cost
Covers Entire Population	no	no	no	no	no	no	no	yes	no
No Of Products Covered	1300	1800	900	1000+	700	700	500	no	650
Adjusted Seasonally	no	no	no	no	yes	no	no	no	no
Weight Update Frequency	1 year	1 year	1 year	2+ years	1 year	1 year	1 year	1 year	1 year

Table 2: Approaches to measuring consumer price inflation in G7 Countries

Country	Canada	France	Germany	Italy	Japan	UK	USA
Produces HICP	no	yes	yes	yes	no	yes	yes - experimental version
HICP Used Nationally	n/a	no	no	no	n/a	yes	no
Main Inflation Calculator	Canadian CPI	French CPI	German CPI	Italian CPI (NIC)	Japanese CPI	RPI and HICP/CPI	USA CPI
Calculated Regionally	yes	no	yes	yes	yes	no	yes
Includes Owner Occupied Housing	yes	no	yes	no	yes	yes	yes
Method For OOH If Used	user cost	n/a	rental equivalent	n/a	rental equivalent	user cost	rental equivalent
Covers Entire Population	no	no	yes	yes	no	no	no
No Of Products Covered	600	1000	700	1100	600	650	300
Adjusted Seasonally	yes	yes	no	no	yes	no	yes
Weight Update Frequency	4+ years	1 year	5 years	1 year	5 years	1 year	2 years