

# Statistics Commission

## Changes in the Calculation of the RPI and RPI Governance

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Report No. 20  
Changes in the Calculation of the RPI  
and RPI Governance**

**Prepared by the Statistics Commission**

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## Executive summary

This report, prepared by the secretariat of the Statistics Commission, considers:

- methodological changes to the calculation of the Retail Prices Index (RPI) announced in early 2004, and in particular at the handling of the announcements
- the special governance arrangements for the RPI, as set out in the June 2000 *Framework for National Statistics* (see paragraph 7 of the report), which give the Chancellor of the Exchequer a unique role in the production of the RPI – one that he does not have in respect of any other economic statistics
- the role that the RPI Advisory Committee (RPIAC) plays, or could play, in evaluating prospective changes to RPI calculation
- the case for changes to the RPI governance arrangements, including the role of the RPIAC.

The RPI is unique among economic statistics in the wide range of purposes for which it and its derivatives (RPIX, ROSSI) are used, many of which are enshrined in legislation. These include uprating of benefits, indexation of tax rates, index-linked gilts, wage bargaining and inflation clauses in commercial contracts.

The special status of the RPI is defined in the *Framework for National Statistics*:

“The National Statistician will take the lead in advising on methodological questions relating to the RPI, but the scope and definition (of the RPI) will continue to be matters for the Chancellor.”

The Office for National Statistics (ONS) announced on 17 February 2004, within the regular monthly press release on the RPI, some changes to methodology – including the introduction for the first time of the hedonic regression method of quality adjustment for a limited set of goods. There was no separate ONS press release on these significant methodological changes but the Treasury issued a press release on the same day, saying that the National Statistician had announced these changes, and that the Governor of the Bank of England had indicated that the changes did not represent a fundamental change in the index of the kind that would trigger the automatic redemption of index-linked gilts. The Debt Management Office (DMO) had given the gilts market early warning of the prospective changes, but there was no prior announcement for a wider audience.

The Commission accepts that the recent methodological changes to the calculation of the RPI were fully justified, as was the process through which these changes were made. However the Commission believes that in such circumstances ONS could do more to draw attention to, and explain, the changes to the media and other interested parties. The special importance of the RPI argues for clear and open announcement by ONS of any methodological changes. **We recommend that future methodological changes relating to the RPI should be accompanied by an ONS press release explaining the changes.**

There is a lack of public information about progress with the RPI research programme, first announced in 1999 and still ongoing. Announcement of the recent changes prompted some press speculation that developments flowing from the programme were being released in small packages, so as to avoid triggering index-linked gilts redemption. We have seen no evidence to support such a charge, and do not think it likely since a consistent pattern of small episodic changes would soon become evident. However speculation of this kind might be reduced if readily accessible information on RPI research were publicly available. **The Commission recommends that the RPI research programme should publish regular progress reports, indicating whether further methodological changes might be in prospect.**

The changes to the calculation of the RPI announced in February were changes to methodology, and thus the responsibility of the National Statistician. However the distinction between changes to methodology and changes to scope and/or definition is not well understood outside ONS and the Treasury. **The Commission believes that it is important that the responsibilities of the Chancellor and National Statistician in respect of the RPI are clearly set down. The *Framework for National Statistics* needs to be supplemented by a clear statement as to what is meant by ‘scope and definition’, and by ‘methodology’.** This statement should be made available on the National Statistics website.

It has been suggested that convening the RPI Advisory Committee (RPIAC) to consider methodological changes would be one way of reassuring the public that the changes are being made for valid statistical reasons. However, under the existing arrangements, the RPIAC is only convened by the Chancellor, and reports to him. The *Framework for National Statistics* places responsibility for methodology with the National Statistician, not the Chancellor.

The RPIAC is not mentioned in the *Framework*, but is referred to in the RPI technical manual: “major changes in methodology and procedure are referred to an RPIAC”. The latest version of the technical manual dates from 1998, and does not square either with the *Framework*, or with how research on methodology and the introduction of changes from that research have subsequently been handled. **The Commission believes that there is a need for a statement, from ONS and the Treasury, which sets out clearly the role if any of the RPIAC under the present arrangements, and the circumstances when the RPIAC would normally be convened.**

The Commission understands that a number of aspects of the existing *Framework for National Statistics* will be reviewed over the next year. This will provide an opportunity to revisit the RPI governance arrangements. **The Commission recommends that, in a revised *Framework*, the Chancellor should no longer be responsible for the scope and definition of the RPI but that these should instead be the responsibility of the National Statistician, along with methodology.**

**The Commission also recommends that a revised *Framework* should explicitly mention the RPIAC or successor, and set out its role if any under the new RPI governance arrangements.**

**The Commission believes that there should be an advisory committee along the lines of the RPIAC but that it should be convened by and report to the National Statistician rather than the Chancellor.** There should be a clear expectation under the new arrangements that the new advisory body will normally be consulted on major changes to the RPI, including changes in methodology. **The Commission recommends that the relevant *Framework* documents be drafted accordingly.**

## Introduction

1. This report, prepared by the secretariat of the Statistics Commission, considers methodological changes to the calculation of the Retail Prices Index (RPI) announced in February 2004. The primary focus is on the handling of the announcement of the changes by the Office for National Statistics (ONS) rather than on the substantive details of the changes.
2. The report also considers the special governance arrangements for the RPI, which are set out in the *Framework for National Statistics* published in June 2000. These give the Chancellor of the Exchequer a unique role in the production of the RPI that he does not have in respect of any other economic statistics. It also reviews the role that the RPI Advisory Committee (RPIAC) plays, or could play, in advising on prospective changes to RPI calculation.
3. It concludes by considering possible changes to the RPI governance arrangements, including the role of the RPIAC, that might be made when the *Framework for National Statistics* is next revisited.
4. This note has been written partly in response to public comment about the February 2004 methodological changes. A number of questions were raised:
  - Should ONS itself have issued a public statement about the changes? The Treasury, which did issue a press release, seemed to do more than ONS to publicise these changes.
  - Does ONS have additional significant methodological changes planned? Whilst the changes announced this time (the limited introduction of hedonic regression techniques) had little impact on the level of the RPI, a more general adoption of those techniques might be of more consequence.
  - Should these changes to the RPI, and any programme of future changes that may be 'in the pipeline', have been considered by the RPIAC?
5. These and similar points were made in two articles in the Financial Times on 27 March 2004. One of these articles expresses the hope that the Statistics Commission would consider the issues.

## **Background – special status of the RPI**

6. The RPI is unique among economic statistics in the wide range of purposes for which it and its derivatives (RPIX, ROSSI) are used, many of which are enshrined in legislation. These include uprating of benefits, indexation of tax rates, index-linked gilts, wage bargaining and inflation clauses in commercial contracts.

7. The *Framework for National Statistics* specified governance arrangements for the RPI that are unique among National Statistics. “The National Statistician will take the lead in advising on methodological questions relating to the RPI, but the scope and definition (of the RPI) will continue to be matters for the Chancellor.” For all other statistics produced by the Office for National Statistics, responsibility for scope and definition issues - as well as methodological questions - rests with the National Statistician.

8. The role of the Chancellor in respect of the RPI is long-standing. The 1996 Framework Document for the newly formed ONS said, “The scope and definition of the RPI are matters decided by the Chancellor of the Exchequer. The Director of the ONS takes the lead in advising on methodological questions concerning the RPI...”

9. Two other aspects of the RPI arrangements are worth noting. The first is the potential impact on the gilts market of any significant change in the way that the RPI is calculated. For index-linked gilts, the amount of principal to be repaid at redemption is uplifted every year by the change in the RPI. The terms of the prospectus state that if the coverage or the basic calculation of the index is changed in a way that is - in the opinion of the Bank of England - ‘fundamental’ and ‘materially detrimental’ to the interests of holders of that index-linked stock then the Treasury is obliged to offer the stock holders the right to redeem their stock immediately at the uplifted par value.

10. The second relates to the RPI Advisory Committee (RPIAC). This is a committee of academics and others (eg. interest group representatives) that the Chancellor can convene to advise on significant changes to the RPI. The RPIAC is not a standing committee and it has not sat since 1994. But it appears still to be considered as part of the current governance arrangements for the RPI – even though it is not specifically mentioned in the 2000 Framework. It is referred to in the current RPI technical manual, which quotes the 1996 ONS Framework Document: “The Director of the ONS ... services an RPI Advisory Committee (RPIAC) to which the Chancellor



of the Exchequer will refer issues for consideration as appropriate". The manual goes on to say that "major changes in the methodology and procedure of the RPI are referred to an RPIAC ... (which) is convened by the Chancellor whenever it is felt that there are major issues on which advice is needed ... the committee reports to him".

## **ONS announcement of methodological changes to the RPI**

11. ONS announced some changes to methodology for the RPI (and the Consumer Prices Index - CPI) on 17 February 2004, alongside the regular monthly first release. The changes are described in an article by Ball, Waldron, Smith and Hughes released on the National Statistics website<sup>1</sup>. They were also mentioned in the background notes to the First Release, but were not flagged up prominently there. There was no separate ONS press release on the methodological changes.

12. The changes were:

- introduction of local probability sampling for some high turnover, high technology goods (this affects both RPI and CPI);
- introduction of digital cameras into the basket of goods for both RPI and CPI, with hedonic regression used for quality adjustment;
- introduction of the hedonic regression method of quality adjustment for personal computers in the RPI (hedonic regression for PCs is already used in the CPI).

These changes were introduced on 16 March 2004 for the February RPI and CPI.

13. On the same day as the RPI First Release (17 February), H M Treasury issued a press release saying that the National Statistician had announced these changes, that the Chancellor had written to the Governor of the Bank of England with a view to establishing whether these changes represented a fundamental change in the index which would trigger the automatic redemption of index-linked gilts, and that the Governor had said that it did not.

14. The gilts market had been forewarned of these changes four months earlier by the Debt Management Office (DMO) through the medium of a screen announcement (an announcement made by DMO over the wire services – Reuters, Bloombergs,

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<sup>1</sup> [http://www.statistics.gov.uk/articles/economic\\_trends/ET604Ball.pdf](http://www.statistics.gov.uk/articles/economic_trends/ET604Ball.pdf)

Telerate, etc.). This announcement, on 21 October 2003, informed the market that the National Statistician had written to Treasury Ministers regarding changes to the RPI that he proposed should take effect from the indices for February 2004. DMO screen announcements are primarily directed at financial markets, but are also made publicly available on the DMO website. However the 21 October announcement does not appear to have attracted any wider recognition at the time.

### **Background to changes: hedonics and the RPI research programme**

15. Hedonic regression for quality adjustment for personal computers was introduced for the Consumer Prices Index (CPI) – then called the Harmonised Index of Consumer Prices (HICP)- and for the Producer Prices Index (PPI) with publication of the indices for February 2003. An article by Ball and Allen<sup>2</sup>, published in *Economic Trends*, March 2003, described the methods in full.

16. The Ball and Allen article also explained why hedonic regression quality adjustment was not at that stage being introduced into the RPI. “It should be noted that at present there is no plan for the introduction of hedonics into the RPI .... We consider it to be appropriate to be more reserved about introducing methodological changes into the RPI given its widespread use in many important contexts and the fact that, uniquely amongst national statistics, it cannot be revised .... we will use our experiences with the PPI and HICP to assess whether [non-revision of the RPI] may prevent us from using hedonic measures in that index. The position will be kept under review.”

17. The latest changes are described as “part of an ongoing programme of work to apply the best available statistical methodology in the calculation of official consumer price indices”. The National Statistics Work Programme for 2003-04 to 2005-06 refers to “a technical investigation of the RPI (that) continues”, with “the focus at present, and in the immediate future, .... on how quality adjustment techniques and sample representativeness might be improved”.

18. This work has been going on for some time; an article by Baxter and Camus in *Economic Trends* of February 1999, described a “Three Year Research Programme on RPI Methodology” that included quality adjustment and various aspects of

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<sup>2</sup> [http://www.statistics.gov.uk/articles/economic\\_trends/PC\\_Hedonics\\_Regression.pdf](http://www.statistics.gov.uk/articles/economic_trends/PC_Hedonics_Regression.pdf)

sampling. The commitment to a research programme was reaffirmed in a December 2001 *Economic Trends* article (Rowlatt: “ONS and the Inflation Target”). “ONS is implementing an extensive RPI development programme, investigating all the main potential sources of bias.” But up until 2004, there had been little in the way of outputs, in the form of methodological changes, from this work.

### **Methodological changes to the RPI – issues raised**

19. The February 2004 changes to the RPI have led to some critical public comments on the way the changes were announced, and to the resurrection of previously voiced criticisms of the special governance arrangements for the RPI. It needs to be stressed that these are not the comments of the Statistics Commission. In drawing attention to them, the Commission is exposing them to scrutiny but not endorsing them, except where we specifically say so. Examples of the comments are:

- the fact that the Chancellor retains responsibility for scope and definition of the RPI leads people to look for political motives behind any changes;
- the introduction of hedonics to calculate quality adjustments in the index is likely to reduce inflation as measured by the RPI, and thus saves the Chancellor money on index-linked gilts;
- hedonic regression for quality adjustment has only been introduced for a very limited number of goods so far, and could potentially be extended much further. Government has said nothing publicly about how many more such changes may be in the pipeline;
- some commentators suspect that the Government might have an agenda to extend the use of hedonics substantially, but to introduce the changes in small batches over time, so as not to trigger the index-linked gilts redemption clause;
- these changes could have been introduced in a more open way. The Chancellor could have convened the RPIAC to advise on the changes, which might have reassured people that they were fully justified on statistical grounds. And he could have asked the Bank to consider a more general question about the effect on the RPI of the introduction of hedonics instead of, or as well as, the specific question about the changes being proposed. But the RPIAC was not convened. Indeed it has not sat for 10 years. And the Bank was asked a very specific question about the impact of a limited set of changes on the index.

20. These concerns raise four main issues which the remainder of this note considers in turn:

- how best to handle announcements of changes, and the publicity (or lack of publicity) given to the changes;
- the extent of any further changes arising from the ONS RPI research programme;
- delineation of the respective responsibilities of the Chancellor and National Statistician in respect of the RPI;
- the role of the RPIAC .

### **Handling the announcement of RPI methodological changes**

21. The Commission is content that the recent methodological changes to the calculation of the RPI were fully justified, as was the process through which these changes were made:

- the individual changes were clearly driven by methodological considerations, and not by political concerns;
- ONS has made regular references to its technical research programme for the RPI. Methodological changes are to be expected as a result of this programme, so in general terms these recent changes should have been no real surprise;
- we accept the explanation that has been given for delaying for a year the introduction of hedonic regression methods into calculation of the (non-revisable) RPI, following their introduction into calculation of the (revisable) CPI/HICP and PPI;
- a Treasury press release in respect of index-linked gilts is standard practice for any methodological change affecting the RPI (except for regular annual changes to product weights and to the basket). The Treasury is required to consult the Bank as to whether, in the Bank's opinion, the change is 'fundamental' and 'materially detrimental' to the interests of holders of these particular stocks, and to announce its conclusion;
- the gilts market had been informed of the forthcoming changes four months earlier through a DMO screen announcement.

22. However the Commission feels that in such circumstances ONS could and should do more to draw attention to, and explain, the changes. The special status of the RPI argues for clear and open announcement by ONS of any methodological

changes affecting the RPI. This was done for the gilts market - but by DMO, through the medium of a DMO screen announcement, rather than by ONS. There is no evidence that knowledge of the forthcoming changes reached a wider audience through this specialist medium. We recommend that the announcement of future methodological changes affecting the RPI should be accompanied by an ONS press release announcing and explaining the changes.

### **Reporting on progress with the RPI research programme**

23. There is no evidence to support media speculation that the recent changes might be the first of many, designed individually to avoid triggering the index-linked gilts redemption clause. Nevertheless it is important that ONS seek to correct any impression that they have a substantial hidden agenda of further changes planned. The DMO announcement of 21 October offered partial reassurance in this respect when it said that there would be “no blanket use of the technique [of hedonic regression]”. However this announcement was made by the DMO rather than by the National Statistician – which in itself looks odd – and was targeted at the gilts market. It appears anyway to have gone unnoticed outside of gilts market participants.

24. The Commission regards the general lack of information about the ‘state of play’ on RPI research as a contributory factor. The RPI research programme is still ongoing; it remains possible that there will be some further methodological changes as a consequence of it. Damping speculation about future changes to the index will require more information about the status of RPI research than has been made available up to now. The Commission recommends that ONS should publish regular progress reports on the RPI research programme, indicating any forthcoming methodological changes that might be in prospect.

### **Chancellor’s responsibilities in respect of the RPI**

25. The special feature of the governance arrangements for the RPI is that the Chancellor retains responsibility for ‘scope and definition’. The National Statistician is responsible for ‘methodology’. The changes to the calculation of the RPI announced in February 2004, including the limited adoption of hedonics for quality adjustment, were changes to methodology and are thus the responsibility of the National Statistician. Under the NS Framework document, the role of the Chancellor in respect of methodological changes to the calculation of the RPI is no different to

that in respect of methodological changes to the calculation of GDP, or any other major economic statistics.

26. However the distinction between changes to **methodology** and changes to **scope and/or definition** is not well understood outside ONS and the Treasury. ONS have produced a useful note, in response to an earlier Statistics Commission enquiry, which addresses this question (attached at Appendix A). Although helpful it also illustrates that the line between the two is a difficult one to draw in some cases.

### **Role of the RPIAC**

27. The RPIAC has always been convened by, and has advised, the Minister responsible for the RPI – since 1989, the Chancellor of the Exchequer. It has not met since 1994. The logic of the present governance arrangements is that it is only now likely to be convened to look at questions of the scope and definition of the RPI, for which the Chancellor is responsible. On questions of methodology, the Chancellor is advised by the National Statistician, and it is not clear whether there is any role for the RPIAC to play.

28. It has been suggested that convening the RPIAC to consider prospective methodological changes would be one way of reassuring the public that the changes are being made for statistical reasons, with no political motivation in mind.

29. The Commission understands this argument but would not wish to see the RPIAC having the effect of holding-up methodological improvements or of diluting the authority of the National Statistician as the head of ONS. This would be less likely if the RPIAC were to be convened by the National Statistician and report to him. That would require a rather different kind of advisory committee from what the RPIAC has been in the (now distant) past. Nevertheless this is a possibility that may be worth exploring; we return to it later in this paper (see paragraphs 38 to 40).

30. The role of the RPIAC under the present arrangements is unclear. It is not mentioned in the National Statistics Framework document. The RPIAC is referred to in the RPI technical manual, which says, “major changes in methodology and procedure are referred to an RPIAC”. However the current version of this manual dates from 1998, and the statement that major changes in methodology are referred to an RPIAC does not square with the 2000 Framework, which places responsibility

for methodology with the National Statistician. Neither is it consistent with how research on methodology and the introduction of changes from that research have been handled in recent years.

### **Clarifying the existing RPI governance arrangements**

31. The Commission believes that it is important that the responsibilities of the Chancellor and National Statistician in respect of the RPI are clearly set down, are publicly available and are seen to be in the public interest. The June 2000 Framework document needs to be supplemented by a clear statement as to what is meant by 'scope and definition', and by 'methodology'. The basis for such a statement already exists in the ONS note at Appendix A.

32. There is also a need for a statement of the Government's current position on the role of the RPIAC, and the circumstances under which the RPIAC would be convened. Once such a statement is available, the RPI technical manual should be updated to be consistent with it.

### **RPI governance in the longer-term – revising the Framework document**

33. The Commission regards the steps above – a published statement on 'scope and definition' as opposed to 'methodology' and a statement on the role of the RPIAC under the present arrangements – as the minimum required to clear up ambiguities about the existing governance arrangements. But we believe there is a strong case for going further than this and looking again at the Chancellor's special role in respect of the RPI. The Commission is not persuaded that there is public benefit in treating the RPI differently from other key statistics. We believe that this tends to undermine confidence that the construction of the index is handled in a wholly impartial way. It is therefore also likely to have presentational disadvantages through the suspicion it engenders. In short, the current arrangements create the worst of all possible outcomes.

34. The RPI's unique status derives from its use as a measure of inflation for a number of purposes, some of which are specifically laid down in legislation. The National Statistics Framework document seeks to explain the special governance arrangements by reference to the RPI's unique importance. However, some commentators, including the Royal Statistical Society, have taken the opposite view. They argue that, because of its unique status, it is even more important that

everyone has confidence that the RPI is not open to inappropriate influence. Special governance arrangements that give a key role to the Chancellor may reduce confidence rather than increase it.

35. The Commission understands that the existing NS Framework document is due to be reviewed over the course of the next year. We believe that this will provide a useful opportunity to look again at the governance arrangements for the RPI.

36. The Commission believes that responsibility for all aspects of the statistics produced by the Office for National Statistics should lie with the National Statistician. Were the National Statistician to take full responsibility for all aspects of the RPI, the Chancellor would still be consulted - as Minister with policy responsibility for inflation and the public finances - about changes to the index, to the extent that this is appropriate under the existing National Statistics Code of Practice.

37. A revised Framework document should explicitly mention the RPIAC, or successor body, and set out its role, if any, under the new arrangements. Under the scenario that the Commission recommends, with the National Statistician responsible for all aspects of the RPI, there would be a number of options for the RPIAC. One would be to dispense with it. Arguably this would just confirm the existing *de facto* position. The alternative options would involve retaining an advisory body similar to the RPIAC, but as a body that would be convened by, and would advise, the National statistician, rather than the Chancellor.

38. The Commission believes that an RPIAC-type advisory body, reporting to the National Statistician, might help to provide reassurance about the statistical validity of and motivation for any changes proposed to the RPI, through its expert and public scrutiny of the proposed changes. We believe that the importance of the RPI, and the wide range of uses to which it is put, mean that such reassurance may be necessary in order to maintain public confidence in the RPI.

39. There are a number of ways in which an RPI advisory body might operate. One way would be to establish an advisory body that would be consulted on all major changes to the RPI, including changes in methodology. This would in effect be a return to the pre-1994 position, but with the difference that the RPIAC's successor body would report to the National Statistician. Another way would be to establish an



advisory body that the National Statistician could convene and consult on possible changes to the RPI – as he judged appropriate - but to stop short of a formulation that implies an expectation that the committee will normally be consulted on all major changes. This option would be consistent with the handling of the recent changes to the RPI that have emerged from the RPI research programme; the possibility of convening the RPIAC has existed, but in practice changes have been introduced without RPIAC consultation.

40. The Commission believes that there should be a clear expectation under the new arrangements that the new advisory body will normally be consulted on major changes to the RPI, including significant changes in methodology, and recommends that the relevant Framework documents be drafted accordingly.

### **Conclusions – announcement of methodological changes, and clarifying RPI governance arrangements**

41. The RPI is a key economic statistic that is unique in the wide range of purposes it and its derivatives are used for, many of which are enshrined in legislation. Any changes to its calculation are of very wide interest and have the potential for very substantial consequences, eg potentially requiring the Government to redeem all outstanding index-linked gilts. Whilst recognising that the DMO kept the gilts market well informed about prospective RPI changes, the Commission regards the announcement by ONS to a wider audience of changes to the RPI last February as having been overly low key. **We recommend that the announcement of future methodological changes affecting the RPI should be accompanied by a specific ONS press release explaining the changes.**

42. The RPI research programme was first announced in 1999 and is still ongoing. The methodological changes announced in February derive from the work of this programme, but prompted speculation that the changes from the programme were being released in small packages, so as to avoid triggering index-linked gilts redemption. A key problem here is lack of public information about progress on the research programme; it seems likely that speculation would be reduced if readily accessible information on RPI research were publicly available. **The Commission recommends that the RPI research programme should publish regular**

**progress reports, indicating any forthcoming methodological changes that might be in prospect.**

43. The existing arrangements with respect to responsibilities for the RPI need some clarification. **The Commission believes that it is important that the responsibilities of the Chancellor and National Statistician in respect of the RPI are clearly set down. The Framework document needs to be supplemented by a clear statement as to what is meant by ‘scope and definition’, and by ‘methodology’, which should be made available on the National Statistics website.**

44. **The Commission also believes that there is a need for a statement, from ONS and the Treasury, which sets out clearly the role of the RPIAC under the present arrangements, and the circumstances when the RPIAC would normally be convened.** As well as this statement, there is a need to update the references to the RPIAC in the RPI technical manual.

#### **Conclusions – revisiting RPI governance in a new Framework document**

45. The Commission understands that a number of aspects of the existing *Framework for National Statistics* will be reviewed over the next year. This will provide an opportunity to review the RPI governance arrangements. **The Commission recommends that, in a revised Framework document, the Chancellor should no longer be responsible for the scope and definition of the RPI, but that these should instead be the responsibility of the National Statistician, along with methodology.**

46. **The Commission also recommends that a revised Framework document should explicitly mention the RPIAC or successor, and set out its role, if any, under the new RPI governance arrangements.**

47. **The Commission believes that there should be an advisory committee along the lines of the RPIAC, but that it should be convened by and report to the National Statistician rather than the Chancellor.** There should be a clear expectation under the new arrangements that the new advisory body will normally be consulted on major changes to the RPI, including significant changes in

methodology. **The Commission recommends that the relevant Framework documents be drafted accordingly.**

**Secretariat  
Statistics Commission  
September 2004**

## APPENDIX A

### NOTE BY OFFICE FOR NATIONAL STATISTICS, SUBMITTED TO STATISTICS COMMISSION, MAY 2003

#### RESPONSIBILITIES FOR THE RPI

##### **Background**

The Framework document states that all statistical outputs published by the Office for National Statistics- including the RPI- fall within the scope of National Statistics and that:

- “the National Statistician has responsibility for the professional quality of the outputs comprising National Statistics”;
- “the National Statistician will be responsible for establishing and maintaining appropriate consultation arrangements”;
- “the National Statistician will be responsible for ensuring that the Chancellor of the Exchequer, as Minister for National Statistics, and Departmental Ministers, are consulted on proposals that impinge on matter of Government policy”.

The latter is further articulated in the Protocol on Consultation Arrangements Between the National Statistician and UK Government Ministers. The latter states that:

- It is the National Statistician’s responsibility to decide which issues require consultation, bearing in mind the requirement to consult on proposals that impinge on government policy.
- A record of Ministerial consultation will be kept and reported annually in the National Statistics Annual Report.

There is also a specific reference in the protocol to technical changes:

- Responsibility for decisions on changes in the way that some National Statistics are produced rests with the National Statistician or Head of Profession. Where they judge that a change will have significant policy implications, the view of the relevant Minister must first be considered. The Governor of the Bank of England will be included when appropriate.

The National Statistics Framework document states with respect to the RPI that:

“the National Statistician will take the lead in advising on methodological questions relating to the RPI but the scope and definition will continue to be matters for the Chancellor of the Exchequer.”

##### **The Statistics Commission's questions**

The rest of this note addresses the following three questions raised by the Commission:

why do special arrangements apply to the RPI?  
the distinction between the scope and definition of the index (for which the Chancellor is responsible) and methodology (on which the National Statistician takes the lead in advising). For example who would have the final say on the use

of the geometric mean or hedonic methods? Who decides how housing costs are treated?

Procedures by which the Chancellor exercises his role. For example how does the RPI advisory group operate?

### **Special arrangements for the RPI**

The RPI (including derived indices such as RPIX and ROSSI) is an indicator of the utmost economic importance. It is used for many different purposes, including for inflation targeting<sup>1</sup>, uprating pensions and social security benefits, indexing tax thresholds and allowances and excise duty rates, calculating returns on index-linked gilts, wage bargaining, setting inflation trigger clauses in commercial contracts, and for price setting formulae applied by regulated industries. Most of these purposes are enshrined in legislation. Thus the RPI has a uniquely wide range of very important uses, and changes in its scope and definition have unrivalled potential for far reaching policy implications. These factors set the RPI apart from other economic statistics and explain why, in line with long-standing arrangements and unlike other economic statistics, its scope and definition remain under the ultimate authority of the Chancellor. This means that on matters of scope and definition there is direct accountability to Parliament.

For the purposes of the Framework Document a distinction can usefully be made between **what** the index should measure, that is its scope and definition, and **how** it should be measured, that is the statistical methodology to be applied. This can be elaborated further:

- **Scope** refers to breadth of coverage in terms of population and expenditure. For example, the expenditure of the wealthiest top 4% of households and pensioner households which derive at least three-quarters of their total income from state pensions and benefits are currently excluded;
- **Definition** defines what the RPI is trying to measure, essentially its conceptual basis. For example, the RPI is currently defined as an average measure of change from month to month in the price of a fixed basket of goods and services bought for the purposes of consumption from a fixed sample of shops. Essentially a Laspeyres-type index constructed using arithmetic means. However, if we moved to a measure that took into account consumer substitution, for example the impact on averages prices paid by consumers from the opportunity to shop around to get the lowest prices, then in principle this would be a change of definition in the RPI from the current conceptual basis. Further, whether prices are measured on an acquisition, or a user or payment basis is also a matter of definition. Generally the RPI is on an acquisitions basis, with owner-occupied housing measured on a user cost basis being the main exception;
- **Methodology** refers to the statistical techniques used to collect data and construct the index in a way that is compatible with its scope and definition. It is thus about application following resolution of scope and definition. For example, improvements in sample design for the selection of outlets for price collection would be categorised as methodology.

The Commission also asked how the above distinctions applied to a number of examples, use of geometric means and hedonics, and the treatment of housing costs. Unfortunately there are no straightforward answers and these examples can raise issues of both "scope and definition" and "methodology".

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<sup>1</sup> Since December 2003, the inflation target has been based on the CPI, rather than on the RPI.

- **Hedonics** is a statistical technique, essentially a specific type of ordinary least squares regression, that is used for measuring the market value of quality changes in the goods and services included in a price index. A basic principle that is part of the definition of the RPI as a “fixed” basket index, is that it should not reflect price changes wholly associated with quality changes. Therefore once it has been decided as a matter of definition to adjust for quality change, the application of hedonics can be viewed as the application of statistical methodology.
- Formula issues including the choice between **arithmetic and geometric means** are primarily matters of methodology on which the National Statistician leads, but they can sometimes have implications for definition on which the Chancellor's views would be sought. The construction of the RPI involves the calculation of unweighted averages of prices or price ratios to form elementary aggregate indices using arithmetic means. Elementary aggregates consist of similar products or services and form the building blocks of a consumer price index. They are weighted together according to expenditure to form the price index. The geometric mean, used in the harmonised index of consumer prices, is essentially an alternative way of combining individual price quotes and in that respect is, therefore, a matter of statistical methodology. The geometric mean is consistent with the relative expenditures between the different elementary aggregate headings being fixed (e.g. no allowance is made for any switch in expenditure from clothes to food, say). But unlike arithmetic means it implicitly assumes that there will be substitution between different items within an elementary aggregate (e.g. if consumers change from one brand of baked beans to another as a result of a change in relative prices). In that respect it has implications for definition, because its use would involve (partially) departing from the assumption of a fixed basket. In practice, however, given their technical nature the National Statistician would take the lead on all formula issues, though he would not contemplate any change to the formula without full consultation with the Chancellor.
- **Housing costs** can be a matter either of definition or methodology depending on the particular issue being addressed. The measurement of owner-occupier housing costs provides an illustrative example. The current conceptual approach enshrined in the definition of the RPI is described as a variant of the “user cost” approach. It can be seen as an “accounting” measure where mortgage interest payments represent what must be paid to retain shelter now and depreciation represents the notional amount needed to be put aside to cover large infrequent renovations. Under this approach the use of an improved house price index to measure the average price of new and existing houses bought on mortgages (which forms part of the mortgage payments calculation) would come under the scope of methodology. However, a move to a “net acquisition” approach, for instance, which measures the price of purchasing owner-occupier housing regardless of how the purchase is financed, might be considered a matter of definition. This latter approach is represented by the total net value of goods and services delivered in a period, in this case new houses sold in a month. In this respect it is conceptually rather different.

One lesson of the above discussion is that decisions on handling can only sensibly be taken on a case by case basis as and when issues actually arise, and not hypothetically in advance.

The procedures by which the Chancellor exercises his role are a matter for him. The RPI Advisory Committee is not a standing committee.

**Office for National Statistics, 19 May 2003**