January 6 2012

Sir Michael Scholar KCB
Chair, UK Statistics Authority
1 Drummond Gate
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Dear Sir Michael

Issue around the use of the CPI as the key measure of UK inflation

The measurement of inflation is an important topic for statisticians, and it is vital to public credibility that the measure chosen is fit for the purposes to which it is put. The recently much wider use of the CPI - for uprating state pensions and other benefits, uprating some private sector pensions and to replace the RPI as the deflator in the national accounts - has rightly brought more attention on the precise way in which it is calculated. The ONS has already announced that a number of aspects of the CPI are under investigation or consideration for change. I am writing now to urge that you encourage the ONS to devote sufficient resources to this to ensure that these changes are made as swiftly as possible, but without skimping on sound consultation or on statistical resource. It would be highly unsatisfactory to continue for an extended period with a key inflation index which does not command high credibility with either the wider population or with the statistical community.

As you will be well aware, a 2% CPI inflation rate is at present set by Government as the target for the Monetary Policy Committee to aim at, to fulfil its task of achieving low and stable inflation for the UK. The CPI replaced an RPIX target of 2.5% in December 2003. At the time the gap between thsee two annual inflation rates, on average over the long-run, was estimated as being around 0.75-0.8 pct pts. It was therefore possible to argue that this change of target made little difference to prospective inflation conditions in the UK – and in particular that it would not change the rate of wage inflation which, in normal conditions, would be judged to be consistent with achieving the inflation target over the medium-term. Indeed, if anything this rate of wage inflation might be a little higher[1].

At the time, the main drawback of the CPI was seen as the exclusion of housing costs. However this issue could be discounted somewhat as the way in which housing costs were calculated for inclusion in RPIX had also been regarded as unsatisfactory. It seemed possible to argue that the CPI was in other respects a better measure of inflation. The 'formula effect' (resultant on the replacement of the arithmetic mean by the geometric mean for first-stage aggregation) at 0.5 pct pts was regarded as arguably an appropriate reflection of the way in which consumers would substitute between goods and services as relative prices changed. And in other areas the coverage of the CPI (for

[1] See for example: Nickell, S *Two Current Monetary Policy Issues* Speech at Market News International Seminar, September 2003

example the inclusion of university accommodation fees) could be seen as an improvement. Overall, there seemed little reason, therefore, to object to the use of CPI as a reasonable definition of inflation for use as the target variable for monetary policy.

However, this change was not without some disadvantages in relation to the public perception of inflation. Firstly, the rapid rise in house prices led to a view that the CPI was a misleading target for monetary policy. This view is largely mistaken, but the present composition of the CPI makes it hard to refute. Secondly, it added to existing confusion in commentary about wage increases, due to the unfortunate habit in some parts of the media of referring to any wage increase above the present inflation rate as 'inflationary' (which it obviously may or may not be).

The recent shift from the RPI to the CPI as the statutory measure of inflation for a number of other purposes has inevitably increased the attention paid to both the CPI's composition and method of calculation. The widening of the formula effect from 2010, increasing the gap between RPI and CPI has added to concerns. The cumulative effect of the different inflation rates over a number of years will be substantial if CPI continues to be calculated on the current basis. This could result in inequitable outcomes, particularly for pensions, which may not be fully recognised at present.

The recent Office for Budget Responsibility working paper[2] suggested that the formula effect could be as high as 0.8 to 1.0 pct pts in the future. One implication of this is that the RPI/CPI gap is now estimated at 1.3-1.5 pct pts, implying for example a substantial gap after ten years between pensions uprated by the different indices. The long-run RPIX/CPI gap is put by the OBR at 1.15-1.35%, suggesting that the RPIX consistent with a 2% CPI target would be around 3.25%.

As others have commented, the question of whether the geometric mean is appropriate to use in the aggregation of prices turns on how far products within a particular grouping are substitutes for the consumer.[3] In other EU countries the formula effect is generally less significant than in the UK. This might imply that the shift to the CPI as presently calculated means that the UK has gone from using an inflation rate which overstates the cost of living to one which understates it. It would therefore seem particularly urgent for the ONS to resolve the question of the choice of formula for all product groups. At present the ONS aims to have considered elasticity of substitution estimates by July 2012. It is very important that their conclusions can then be published for wider discussion and consultation before the CPI calculation is amended.

It is also possible that the addition of housing costs to the CPI would tend to push the CPI closer to the RPI, ceteris paribus. The appropriate measurement of housing costs is of course another complex issue – not least as the rental and owner-occupied sectors of the housing market are not perfect substitutes.

The work of the Consumer Prices Advisory Committee (CPAC), in particular the issues discussed in its annual reports, indicates that there are many detailed issues around the present construction and

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[2] Miller, R (2011) *The long-run difference between RPI and CPI inflation* Working Paper no 2, Office for Budget Responsibility, November

[3] See for example Courtney, M (2011) *The Formula Effect and the Identification Problem* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1816262

calculation of the CPI. The CPAC's 2011 report[4] to you rightly identifies the two key priorities of owner-occupied housing and the measurement of clothing prices as requiring urgent resolution (although the problems with the formula effect is are necessarily restricted to clothing). The possible date indicated for introduction of changes is early 2013, and if this can be achieved on the basis of a wide consultation with users these would be welcome developments.

In addition to the issues raised above, it may also be noted that the change to uprating pensions in some defined benefit schemes by CPI has changed the relationship in some actuarial calculations between projections of price and wage inflation. Alterations to the CPI may shift this relationship again, altering estimates of pension deficits or surpluses. It would be preferable for this to be identified sooner rather than later.

There is of course no perfect way to measure inflation, and in urging that the issues around the CPI require swift and thorough solution I certainly do not wish to imply that there should be a return to the RPI, which may well have tended to overstate inflation and included a measure of housing costs I would regard as unsatisfactory. However it might have been preferable for the shift towards the wider use of the CPI to have been delayed until the known weaknesses of this measure had been addressed, and the differential with RPI fully understood. Early resolution and of, and honesty about, these issues seems vital to retain public confidence.

I am copying this letter to Jil Matheson (the National Statistician), to Stephen Penneck (ONS Director General), Valerie Isham (the President of the Royal Statistics Society) and Bronwyn Curtis (Chair of the Society of Business Economists).

Yours sincerely

Kate Barker CBE

[4] Consumer Prices Advisory Committee, *2011 report to UK Statistics Authority* September 2011