



FIRST ACTUARIAL RESPONSE TO RPI CONSULTATION

INTRODUCTION

This paper sets out First Actuarial's response to the [Consultation on the Reform to the Retail Prices Index Methodology issues jointly by HM Treasury and the UK Statistics Authority](#).

First Actuarial is a consultancy providing pension scheme administration, actuarial and consultancy services to a wide range of clients across the UK. Our clients' pension schemes range in size from £0.5 million to nearly £2 billion in assets and cover a number of sectors including manufacturing, financial services, not for profit organisations and those providing services previously in the public sector.

The actual response will be posted using the online survey so this paper summarises our response for internal and external interested parties.

RESPONSE

Q1 Do you agree that the proposed approach is statistically rigorous?

The consultation attributes all differences between the RPI and CPI to flaws in the RPI, without advancing detailed reasoning why this should be the case.

The consultation document is highly self-referential: there are many references made to other documents published by the ONS and the UK Statistics Authority. There is reference to the report "UK Consumer Price Statistics: A Review" prepared by Paul Johnson of the Institute for Fiscal Studies, which was commissioned by the UK Statistics Authority and is published on the UKSA's web site. There is little reference to other sources of opinion.

The House of Lords Economic Affairs Committee prepared a report "Measuring Inflation". The committee took evidence from many sources and made a number of recommendations. We would expect the committee's report to be addressed in detail in the consultation, explaining which recommendations had been taken up and which rejected, giving reasons for the rejection. The consultation document does not do this.

There are some important issues to resolve:

The measurement of housing cost inflation.

It is not generally accepted that either CPI (which takes no account of owner-occupier housing costs except for minor repairs) or CPIH (which uses rental equivalence and council tax) contain a good solution to the measurement of housing cost inflation. The RPI (which includes mortgage interest costs, depreciation, buildings insurance, ground rent and house purchase costs such as estate agents and conveyancing) would on the face of it appear to be more comprehensive and better on this issue.

The collection of price data

The way in which price data is collected has a material impact on an inflation index. This was seen in 2010, when a change to the collection of clothing prices increased both CPI's and RPI's measurement of clothing price inflation (Measuring Inflation, figure 4). In Annex A, the consequential increase in the gap between CPI and RPI is attributed to a "methodological shortcoming" of RPI.

It is not obvious to us that it is correct to attribute the flaw wholly to the RPI, as opposed to attributing it to the CPI or to the method of collection of price data itself. We saw in 2010 that a change to the method of collecting clothing prices increased the gap between CPI and RPI. Therefore it must also be possible in principle for reformation of data collection to result in a narrowing of the gap between CPI and RPI.

Geometric averaging (as used in some of CPI) is an unusual method of averaging which always results in a lower average than an arithmetic average (as used in RPI). The more disparate the data being averaged, the bigger the difference between an arithmetic and a geometric average.

Data	Arithmetic mean	Geometric mean
19, 20, 21	20	19.98
15, 20, 25	20	19.6
10, 20, 30	20	18.2
5, 20, 35	20	15.2
1, 20, 39	20	9.2

We understand that a large scale reform of the collection of price data is being developed, to include the collection of very large quantities of price data electronically, in contrast to the traditional method of collecting price data by visiting shops. It is possible that such a material reform to the collection of price data could materially alter the outcome of both CPI and RPI calculations, and the gap between the two could be narrowed.

The objective of an inflation index

RPI and CPI are compiled to meet two different objectives. RPI is devised as a measure of inflation experienced by households (excluding high income households and low income pensioner households). CPI is a macroeconomic inflation measure. The Royal Statistical Society says that the CPI and CPIH "are an unsatisfactory measure of inflation as it affects British households". It is not obvious that it is satisfactory to simply substitute CPIH for RPI, as proposed.

One particular issue is the assumed substitution effects reflected in CPI which may not be appropriate.

There is an existing project to consider the development of Household Cost Indices, which is referred to in the consultation document. It seems obvious that this project should be completed before a decision is made to substitute a measure of household cost inflation (RPI) with another measure which is not a measure of household cost inflation (CPIH).

Conclusions

It is premature to decide now to substitute CPIH for RPI. We recommend that three actions are taken first:

- Adopt appropriate reform of housing costs in CPIH
- Reform the collection of price data to include electronic collection of data
- Conclude the Household Cost Indices project.

The first two actions may change the picture of how RPI and CPIH compare.

Once these three actions are completed, the objectives of inflation indices can be considered and an informed decision taken about the inflation indices to be taken forward, bearing in mind the outcome of the Household Cost Indices project.

Given that RPI may not be replaced with something else before 2025 or 2030, there is time to carry out the above actions before RPI is changed.

In the meantime, RPI should be maintained, in the sense of a continuing programme of development, as opposed to continuing RPI calculations using fossilised methods.

A significant merit of RPI for research purposes is its continuity for a long period of time. This is particularly important for long term research where the only continuous statistic available to allow investigations of relationships between inflation and other measures is RPI. Removing an RPI measure makes such long-term research much more difficult.

The proposed approach does not appear to be statistically rigorous. At best, the rigour of the approach is not proven.

2. What will be the impact on the interests of holders of 'relevant' index-linked gilts (i.e. 2½% IL 2020, 2½% IL 2024 and 4 1/8% IL 2030) of addressing the shortcomings of the RPI in a) 2025 b) 2030 or c) any year in between?

3. What will be the impact on the interests of holders of all other index-linked gilts of addressing the shortcomings of the RPI in a) 2025 b) 2030 or c) any year in between?

4. What will be the impact on the index-linked gilt market or those dependent on it of addressing the shortcomings of RPI in a) 2025 b) 2030 or c) any year in between?

We answer these questions from the point of view of pension schemes and their members.

A pension scheme holds assets as collateral for pension promises. A pension promise may be inflation related or a fixed amount. If inflation related, there may be an explicit linkage to the RPI, the CPI, or to some other index (such as a sub-index of RPI or Average Weekly Earnings). In a final salary scheme, the linkage to inflation while in service is to the personal salary growth of an active member.

A pension scheme may hold index linked gilts, which deliver an income stream growing in line with RPI, to support the payment of pensions with a variety of linkages to inflation.

Pension scheme owns index linked gilts	A switch of linkage from RPI to CPIH will result in a reduction in the annual increases applied to interest and capital payments. Pension schemes typically hold long dated gilts. A reduction in increases of 1% pa could result in a loss of index linked gilt asset value of around 20%.
Pension scheme owns inflation related liability driven investment (LDI)	LDI can involve a geared up exposure to index linked gilts. The loss of value on a LDI contract may be particularly severe.
Pension scheme has RPI linked liabilities	A switch of linkage from RPI to CPIH will result in a reduction in the annual increases applied to pensions. A reduction in increases of 1% pa could result in a decrease in the value placed on inflation related liabilities of around 20% (if there is linkage to RPI both before and after retirement). From the member's point of view, this is a 20% cut in the value of their pension.
Pension scheme has CPI linked liabilities, salary linked liabilities, fixed amount liabilities	A switch of linkage from RPI to CPIH has no primary effect.

A pension scheme may end up better off or worse off from the substitution of CPIH for RPI, depending on the nature of its assets and liabilities. The table below summarises some different possible effects:

Pension increases in scheme based on:	Inflation risk fully matched by index linked portfolio	Scheme has no index linked gilts
RPI	Neutral effect on scheme <i>Benefit reduction = investment loss</i>	Positive effect on scheme <i>Benefit reduction > investment loss</i>
CPI	Negative effect on scheme Benefits unchanged / investment loss	Neutral effect on scheme Benefits and investment unchanged

So the sponsoring employer may be made better or worse off, with positive or negative impacts for its business. If a pension scheme deficit does increase, this may lead to larger immediate cash contributions being required from employers in the short term.

In addition, a worsening of pension scheme funding may trigger a decision to increase the active members' contributions. It is increasingly common for an increase in the contribution rate to be shared between the employer and active members. This is an established process in some schemes. Such a decision has the potential to be intergenerationally unfair.

Pension schemes are hugely varied. In the portfolio of schemes which we advise upon:

- there is a scheme in which the pensions are almost wholly indexed to CPI, before and after retirement
- there is a scheme in which the deferred pensions and pensions in payment are almost wholly indexed to RPI
- there is a scheme in which the majority of the liabilities are of fixed amounts.

It would be unwise to attempt to summarise the position of a “typical” pension scheme – any one scheme may be very untypical.

One point can however be made with confidence. For any scheme which holds any index linked gilts, the effect of a reduction in the inflation index used is a redistribution of wealth to Government and away from some combination of pension scheme sponsors and members. This is particularly of note given that regulation has increasingly encouraged pension schemes to hold (and leverage up) inflation linked gilts due to the need to “hedge their balance sheets” from valuation date to valuation date. Without that regulatory pressure, it is likely that pension schemes would use other assets that provide more general protection against inflation such as property, commodities and equities. In combination the ONS and regulation have, in effect, caused pension schemes to buy something from Government that was, in hindsight, overpriced. The loss to pension schemes and their members is Government's gain. The reduction in the value of the UK government borrowing is around £100 billion, assuming that the impact is to reduce the rate of growth on the inflation measure used by 1% pa beyond 2030.

5. What other impacts might the proposed changes to address the shortcomings of the RPI have in areas or contracts where the RPI is used?

We must state very clearly the effect on pension scheme members with RPI linked benefits. The substitution of CPIH for RPI is a cut in their benefits. Over a lifetime, the cut may compound to be very substantial.

6. Are there any other issues relevant to the proposal the Authority is minded to make of which the Authority or the Chancellor ought to be aware?

The proposed approach of simply substituting CPIH for RPI is not “fixing the flaws in RPI”. “Fixing the flaws” would result in a continuing RPI, perhaps including reformed data collection processes. What is being proposed is the abandonment of RPI: the “new” RPI is a relabelled CPIH.

Simply substituting CPIH for RPI results in a discontinuous RPI index. This is statistically unsatisfactory. A significant merit of RPI for research purposes is its continuity for a long period of time.

It also results in a contractual sleight of hand. Any contract referencing RPI is materially altered by the substitution of CPIH for RPI, changing the balance of financial interests between the parties. Pension promises made based on RPI have been altered for the worse. The consultation documents refers to the fact that a previous Chancellor noted that “the Authority’s proposal to address the shortcomings in the RPI in this way “may be a more efficient approach than continuing to ask users to stop using it and rewriting existing contracts” “. Whilst this approach may be “efficient” it is unlikely to increase public trust or confidence in either Government or the UKSA.

7. Which lower level or supplementary RPI indices are currently used, and what are they used for?

We are aware of a pension scheme which references RPIX for its annual increases to pensions in payment.