The London Institute of Banking & Finance

# Never A True Picture

**Jill Leyland** looks at how the different UK price indices measure inflation, highlighting the flaws in each one, and makes the case for devising a more accurate indicator

**Pensioners and pension funds are justified in asking why their need for a consumer price index that tracks the impact of inflation on households is not being met. Today many private sector pension schemes are locked into the Retail Prices Index (RPI), which overstates inflation. Meanwhile, public sector pensioners – and a growing number of those in the private sector – have pensions uprated by the Consumer Prices Index (CPI), which underestimates it, albeit probably to a lesser extent than the RPI overestimates. The blunt truth is that there is no official price index that does the job properly. This includes the CPIH, which the Office for National Statistics (ONS) uses now as its headline measure.**

How we got here is a tangled story. Before starting, we need to clarify some nomenclature. While the CPI is called the Consumer Prices Index, both the RPI and the CPI are forms of "consumer price indices" that aim to measure price rises in goods and services bought by households. The CPI is, in fact, the EU's Harmonised Index of Consumer Prices (HICP) for the UK. HICPs were developed in the 1990s to meet the need for a consumer price index on comparable definitions and structure for all EU members. (National consumer price indices can often vary in coverage and compilation, rendering comparisons invalid.) Compiling a HICP is obligatory for EU members; European Economic Area members also have to compile them.

The RPI dates back to 1956 and until 2010 it was an acceptable price index. It was specifically designed to measure the impact of inflation on most households so that it could be used as a compensation index when wages, or anything else, needed to be adjusted for inflation. It was not perfect – no price index can be – and it had one weakness in particular but, until 2010, this weakness was contained and offset. Generally, though, it did the job.

The HICP was designed for macroeconomic needs, eg inflation targeting. It excludes owner-occupier housing costs (eg mortgage interest, major repairs, council tax) and was not intended as a compensation index. Since weights are based on total consumer spending, higher spending households are given greater weight. This is appropriate for macroeconomic needs but not for a compensation index; the RPI excludes the top 4 per cent of households by income to mitigate this problem.

The flaw in the RPI is that it gives an overly high estimate of the inflation rate when there is a lot of variability in price movements. This is because it uses a particular mathematical formula – known as "Carli" after its inventor – in one part of the compilation process and for certain products, including clothing. Until 2010 this problem was limited and was offset by another issue affecting the collection of clothing prices (in both the RPI and the CPI), that is: to try to ensure like-for-like comparisons, the items to be counted were tightly prescribed, which generated a contrasting downward bias. Clothing is a particular challenge when calculating inflation because changes in fashion undermine comparability from year to year.

The CPI mainly uses a different formula, Jevons, which is a geometric mean. When there is high variability in price movements, Jevons can give an estimate that is too low – but its underestimation is normally less than Carli's overestimation. Inflation as measured by CPI is usually lower than RPI inflation, mainly because of the former's exclusion of owner-occupier housing costs, as well as the formula difference.

Prior to 2010, many private sector pension funds adopted the RPI as the basis for uplifting pension payments (including deferred pension payments) to allow for inflation. Public sector pensions, and almost anything else that needed adjustment for inflation, were also linked to it, or to a derivative. This included index-linked gilts (ILGs). To assuage investors' fears, a clause in the prospectuses of early ILGs (to 2002) stated that if the RPI were modified in a way considered by the Bank of England (BoE) to be both fundamental and detrimental to ILG holders, those holders could demand immediate redemption at uplifted par. Because of the impact of such major redemption demands on public finances, the Statistics and Registration Service Act 2007 states that such changes need the consent of the chancellor of the exchequer.

In 2010, two things happened. Until then, almost the only official use of the CPI was as the BoE's inflation target, a use consistent with its original purpose. But in 2010, the coalition government changed the basis of the uprating of public sector pensions and some benefits from the RPI to the CPI. In 2011, the government linked the minimum level of inflation-proofing in pension schemes to the CPI – unless a scheme has rules specifically related to the RPI.

The second 2010 change was an alteration to price recording guidelines for clothing by the ONS. Loosening the rules on what could be captured was an attempt to correct the downward bias in clothing prices. But the new guidelines sharply increased the variability in recorded price movements. This exacerbated the overestimation problems with the Carli formula, as well as the smaller underestimation effect in the Jevons formula, but without the offsetting impact of the previous downward bias. It also increased the gap between RPI and CPI inflation.

In 2012, the ONS held a consultation on replacing Carli in the RPI. This provoked a furious backlash, for both good and not so good reasons. As a result, and with the Statistics and Registration Service Act provisions effectively imposing a one-way ratchet, since "fundamental" changes cannot be made if they harm ILG holders, all attempts to "mend" the RPI were abandoned and its use since has been officially discouraged.

The RPI is still widely referenced but the use of the CPI has increased – which is ironic given that the Brexit-seeking UK is the only EU country, other than Slovenia, to give this sort of prominence to what is actually the EU's HICP. Other EU countries generally favour their national price index.

So we come to the unhappy current situation. Many defined benefit private sector pension schemes still have the RPI specified in their rules and not all rules allow discretion to change. Court decisions have depended on the precise wording used. In the absence of a legislative override (one proposal in the current Department for Work and Pensions consultation on defined benefit pension schemes), some schemes are stuck with the RPI while others can change to the CPI.

The difference is material. If two pensioners had retired in 2000 on exactly the same income, one whose income was uprated by the RPI would now enjoy an income 13 per cent greater than one uprated by the CPI. If the CPI had been designed for compensation purposes, and gave a reasonable estimate of household inflation, a legislative override could be the answer. But but this would leave pensioners under-compensated while pension funds will still get RPI-linked returns on ILGs.

The CPIH, now the ONS's headline index, will also not provide a fully satisfactory solution since this is a derivative of CPI. It does include council tax and a measure of owner-occupier household costs but the latter is based on rental costs of comparable properties. While fine in economic theory, this method is not convincing to many people in practice. (It was originally used in the RPI but was abandoned in the 1970s.) The ONS is developing a new index, the Household Costs Index, which could ultimately provide a solution, but it will be several years before this is useable.

This is an unhappy situation indeed.

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