UK Consumer Price Statistics: A Review

Paul Johnson January 2015

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Terms of reference

- Recommend a framework of consumer price indices that will best meet the needs of users
- Promote statistical standards
- Consider the Cost of Living Index concept
- Consider different sources of data
- Work with the findings of the Smith Review of Governance

Two big ambitions

- To try to provide some clarity over what consumer price statistics are for, and what user needs are
 - What should we be measuring?

- Review a whole range of methodological issues including data sources, how quality is adjusted for, the treatment of discounts
 - How should we be measuring?

In context of main uses

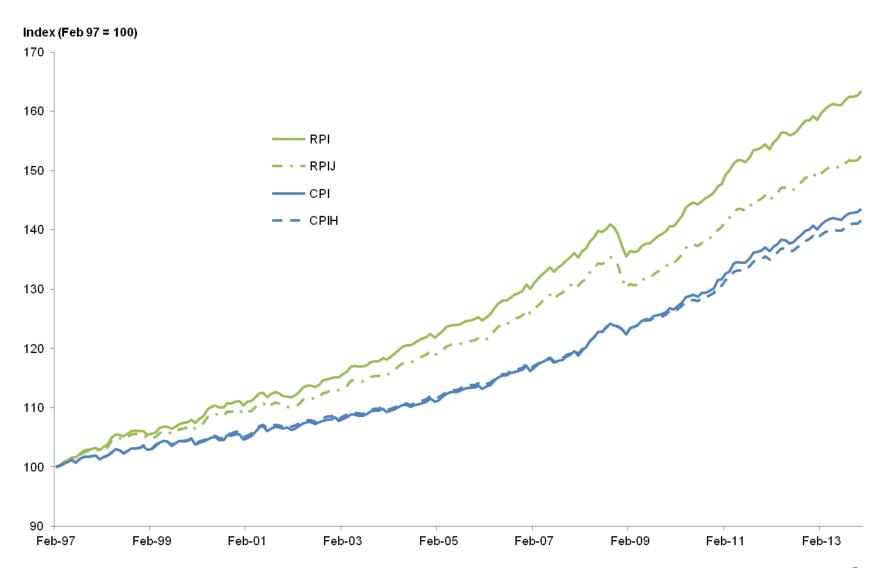
- Compensation index
- Inflation targeting
- Deflator
- Information
- And crucially use in contracts, including gilts, which means that stability is important

What should we be measuring?

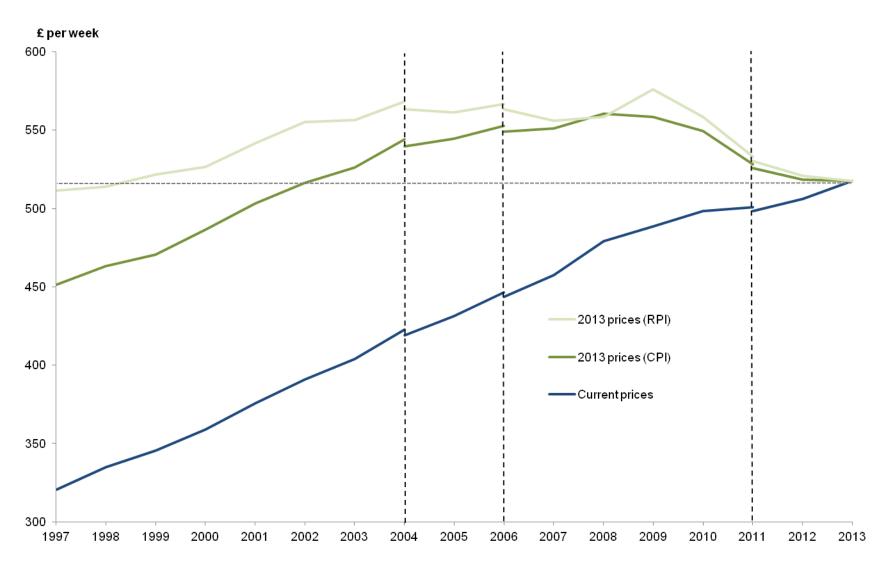
Four main measures of inflation

- CPI: National statistic, method set by Eurostat to ensure EU wide comparability
- CPIH: As CPI, but includes owner occupiers housing costs on rental equivalence basis. It currently has its national statistics status suspended
- RPI: Longest running measure, no longer a national statistic
- RPIJ: As RPI but with "corrected" formula for aggregation at the most basic level

They paint very different pictures



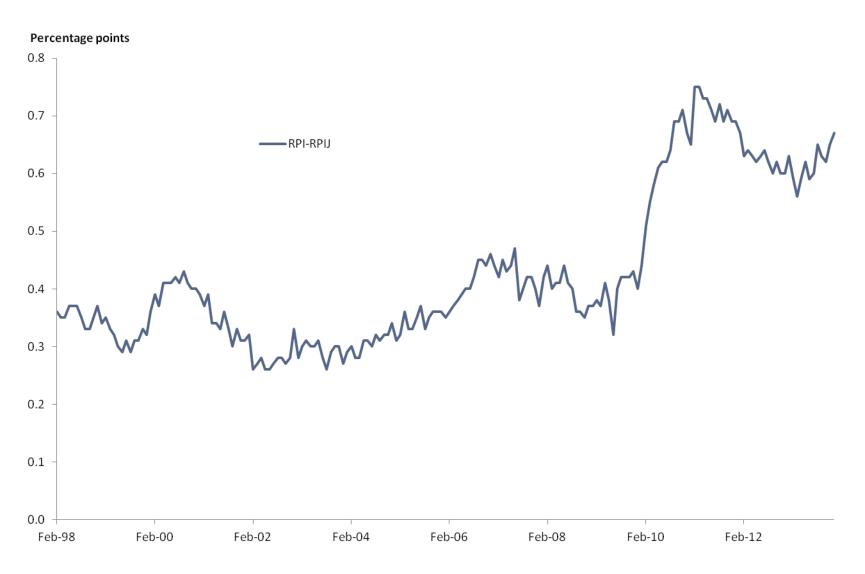
For example over real level of median earnings



The future of the RPI

- RPI lost national statistics status in 2013
 - The use of the "Carli" (arithmetic average) at the elementary aggregation stage creates an upward bias

The difference the Carli makes



Recommendations

- Government and others should stop using RPI wherever possible
- UKSA should speak out against its use
- Should continue to be produced only as a legacy index supporting existing contracts, with no changes to methodology
 - In the long run UKSA should look to find ways to discontinue production

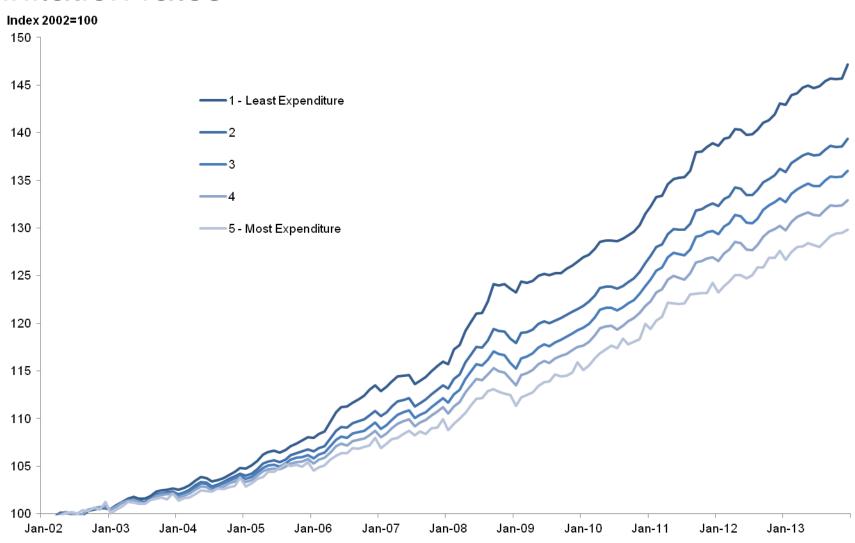
Different definitions of inflation

- The increase in prices between period 1 and period 2 (suitably weighted to reflect consumption of different goods and services)
 - Broadly what CPIH does
- The increase in the actual cash outlay required by households to achieve the same consumption between periods 1 and 2 – what some have referred to as a "household index"

The household index

- Would differ from CPIH by, for example, including actual spending on mortgage interest and gross (as opposed to net) insurance premia
- Would not be a coherent population wide measure of "prices"
 - Which may explain why we have been unable to find any example internationally of such an index
- But there is an important issue different types of households face different changes in the costs they face
 - And a "household index" may be more coherent when applied to sub-groups

Different households have faced very different inflation rates



Recommendations

- ONS should move towards making CPIH its main measure of inflation.
 - CPIH should probably include Council tax
 - Consider legislation governing the production of CPIH
- ONS should develop an annual publication showing inflation as experienced by a range of different household types, along with appropriate advice on what income measures these indices can be compared to.

Different definitions of inflation

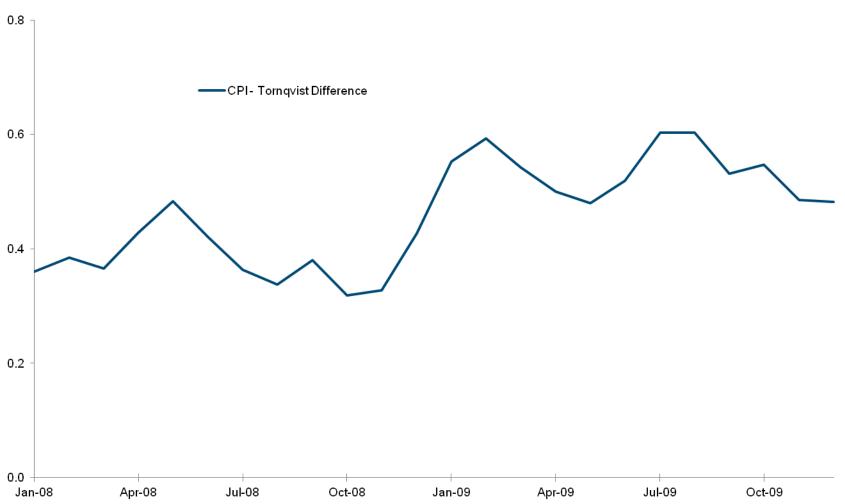
- The increase in prices between period 1 and period 2 (suitably weighted to reflect consumption of different goods and services)
 - Broadly what CPIH does
- The increase in the actual cash outlay required by households to achieve the same consumption between periods 1 and 2 – what some have referred to as a "household index"
- The increase in spending required to achieve the same level of welfare in period 2 as in period 1, in the face of rising prices
 - A Cost of Living Index

The Cost of Living Index

- Economically speaking CPI, RPI etc are not COLIs
 - They do not take account of substitution to cheaper goods
- A genuine COLI is very hard to estimate
 - And certainly can't be done in a timely manner
- But approximations are possible and initial work suggests that there is a strong case for pursuing work in this area
 - There might be quite significant differences between a COLI and current measures

Difference between CPI and one approximation of a Cost of Living Index

Percentage points



Recommendations

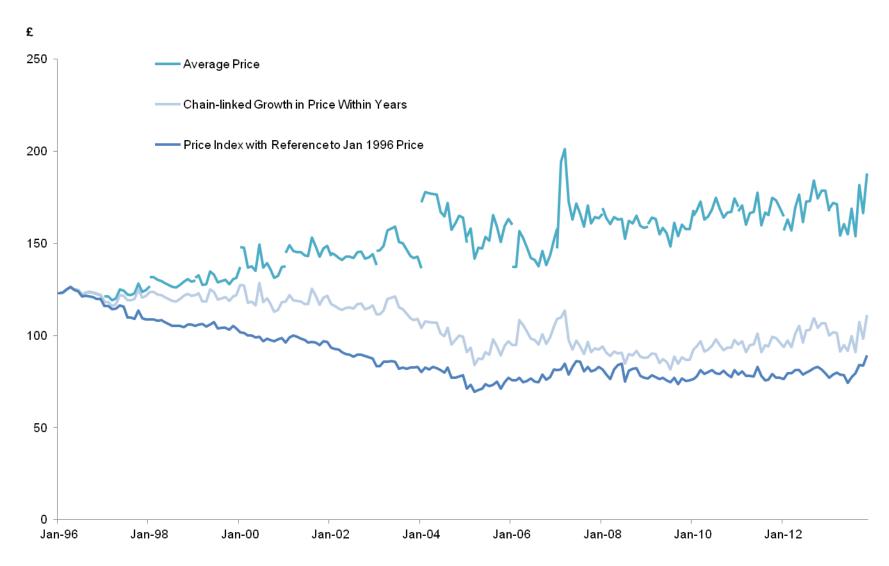
 ONS should continue work on the COLI (superlative indices) and aim to produce annual estimates.

How should we be measuring?

Recommendations

- Data sources
 - ONS needs to make progress in using scanner and web data
 - The source of much weights data the Living Costs and Food Survey – needs reviewing
- Quality change needs monitoring
 - It is very striking how much difference it makes

Prices and price index for vacuum cleaners



Recommendations

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 - The source of much weights data the Living Costs and Food Survey – needs reviewing
- Quality change needs monitoring
 - It is very striking how much difference it makes
- The issue of outlet substitution should be considered
- More discounts should be included in inflation statistics
 - Most (e.g. buy one get one free) are currently excluded

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