ADVISORY PANEL ON CONSUMER PRICES – STAKEHOLDER

The conceptual foundations of the Household Costs Indices (ESCOE workshop)

Purpose

1. Following the discussion on capital mortgage repayments in December's APCP-T (APCP-T(18)16 Calculating a price index for capital mortgage repayments), an ESCOE workshop was held on 25th April 2019 to discuss the conceptual foundations of the Household Costs Indices. This paper provides details of the event and also includes a record of the discussion on the day.

Actions

2. Members of the Panel are invited to:
   a) Feed back on the latest HCIs results paper provided in Annex A
   b) Review and comment on the discussion provided in Annex C
   c) State explicitly which elements of the HCIs they agree with and which they do not (Annex D)

Background

3. On 25th April 2019 ONS published its HCIs, second preliminary estimates UK, 2005 to 2018 (Annex A), which extended the measure to include a student loan repayments component.

4. On the same date ESCOE ran a workshop to discuss what the conceptual foundations of the Household Costs Indices should be. The workshop was organised following December's APCP-T discussion on capital mortgage repayments. The Chair concluded that there were two issues that were not fully resolved: how to account for savings in a way which is internally consistent, and how close this measure should be to a cash-flow measure. The ESCOE workshop was taken forward by ONS as an action, to help resolve these issues.

5. The workshop aimed to gather input from a wide range of users and academics to help specify a robust and recognised conceptual foundation on which to base the development of the Household Costs Indices. It included presentations from John Astin and Jill Leyland on their proposals for a household inflation index, ONS on the latest HCIs results, Alan Bentley on Stats New Zealand's Household Living-costs Price Indices, and Martin Weale's thoughts on the HCIs. The programme for the event is reproduced in Annex B. The discussion which followed is summarised in Annex C.

6. Following the workshop, attendees have been invited to submit any further written comments by 25th May 2019. ONS will be presenting the summary of the discussion to both APCP-T and APCP-S in May. The summary, written contributions and APCP-T and S views will then be presented to the National Statistician in June to take a decision on the way forward. For this reason, panel members are asked to explicitly state what their preferred approach would be for measuring each of the concepts proposed for the HCIs. These are provided in Annex D for reference.

Christopher Payne
Prices, Office for National Statistics
May, 2019

List of Annexes

Annex A	Household Costs Indices, UK: second preliminary estimates, 2005 to 2018
Annex B	Workshop programme
Annex C	Minutes of the workshop
Annex D	Description of the Astin and Leyland Household Inflation Index (HII) proposal

Annex B – Household Costs Indices, second preliminary estimates, UK: 2005 to 2018

https://www.ons.gov.uk/economy/inflationandpriceindices/bulletins/householdcostsindices/secondpreliminaryestimates2005to2018

Annex C – Minutes of the workshop

1. TO NOTE: Due to the timing of APCP-S, workshop attendees have not yet been given the opportunity to comment on this summary. They will be invited to comment before the summary is submitted to the National Statistician; however, panel members should be aware that this draft represents ONS's recount of the discussion rather than the views of the attendees themselves necessarily.

ESCOE WORKSHOP: THE CONCEPTUAL FOUNDATIONS OF THE HOUSHOLD COSTS INDICES

Minutes

25th April 2019
Church House, Westminster, London, SW1P 3NZ
10:00 – 14:00

Attendees:

Name	Organisation	Role
Jonathan Athow	ONS	Co-chair
Grant Fitzner	ONS	Co-chair
Huw Pierce	ONS	Secretary
Mike Hardie	ONS	
Chris Payne	ONS	Presenter
Domenica Rasulo	ONS	
Kathryn Keane	ONS	
John Astin	RPI/CPI User Group	Presenter
Jill Leyland	RPI/CPI User Group	Presenter
Alan Bentley	Stats NZ	Presenter
Martin Weale	ONS	Presenter
Tony Cox	RPI/CPI User Group (Chair)	
Jonathan Gardner	Willis-Towers Watson	
Arthur Barnett	RPI/CPI User Group	
Ashwin Kumar	Joseph Rowntree Foundation	
Laurie Heykoop	Joseph Rowntree Foundation	
Stephen Clarke	Resolution Foundation	
Geoff Tily	Trades Union Congress	
Charlotte Harris	Department for Work and Pensions	
Peter Levell	Institute for Fiscal Studies	
Stephen Penneck	Royal Statistical Society	
Joe Grice	ESCOE	
Michael Lyon	Bank of England	
Helen Sands	Bank of England	
Alex Waddington	HMT	
Rebecca Riley	ESCOE	
Nick Outlon	London School of Economics, ESCOE Fellow	

Guy Nason	University of Bristol
Jason Lennard	NIESR

Presentations

Measuring Households Experiences of Inflation: John Astin and Jill Leyland

Mr Astin outlined a history of consumer price indices in the UK and Europe, covering the inception of HICP (branded as CPI in the UK) and its use to guide macroeconomic policy. Mr Astin highlighted CPI's shortcomings as an indicator of household expenditure:

- Expenditure (plutocratic) weighting makes the index more representative of the spending of wealthier households
- Scope of CPI excludes many major causes of household expenditure, e.g.: mortgage payments, interest, Council Tax
- Domestic rather than national scope, i.e. spending of foreign visitors to the UK is included but spending by UK nationals abroad is not
- CPI captures ticket prices of goods and services rather than the amount paid and the timing of those payments – the acquisition rather than payments approach.

These differences form the basis of the proposal for a Household Inflation Index, taken forward by ONS as the Household Costs Indices (HCIs).

Ms Leyland gave a recap of the evolution of the HCIs to date and outlined some key debates in their ongoing development:

- Treatment of Owner-occupied housing. Various approaches are applied in different indices (e.g. rental equivalence, net acquisitions, payments) but no perfect solution exists. The choice of approach can have a dramatic impact on OOH's contribution to the overall index.
- Should capital costs be included? Traditionally investments have been excluded from consumer price indices, and if the index is used for uprating then owner-occupiers are essentially rewarded for rising house prices. On the other hand, capital costs are a major element of many household budgets and shelter is a necessity. Investment is only a partial motive for home ownership and it is a particularly illiquid one, generally only realised towards or at the end of life. Proposed solution is to create two versions of the HCIs, with and without capital costs.
- If investment in the form of housing is included, this opens the question over including other forms of saving and investment, e.g. pension contributions. For many people these are compulsory.
- If pension contributions are in scope, then this leads to NI contributions also being in scope as these are also partially pension contributions. If Council Tax is included, then why not income tax? The counter to this argument is that income tax is by definition linked to income level and is therefore not a normal price.
- Dealing with forced quality change. Generally, consumer price indices aim to remove the effect of quality change on price, however when a product is replaced in the market and the old product no longer available the argument is to treat this as a price rather than quality change.

Household Costs Indices, Latest Results: Chris Payne

Mr Payne presented a summary of the second preliminary estimates of the HCIs (link), covering the timeline of development and confirming the concepts covered: democratic weighting, a payments approach to owner-occupied housing, interest, gross insurance and student loan repayments. Charts were presented showing the HCI annual growth rates and comparisons against income for three sets of subgroups: retired and non-retired households, low and high-income households, and by household tenure type (rented, subsidised rented or owner-occupied).

Stats New Zealand's Household Living-costs Price Indexes: Alan Bentley

Mr Bentley presented a history of consumer price indices in New Zealand and the development and uses of the Household Living Costs Price Indexes (HLPIs). The presentation separated the purposes of macroeconomic policy setting, guided by the Consumers Price Index (CPI), and measuring changes in the purchasing power of money, achieved through the HLPIs).

Similarly to the HCIs, the HLPIs are household (democratically) weighted. They also include mortgage interest payments. Within New Zealand the HLPIs have been used to inform public debates on tax policy, the minimum wage and wellbeing and inequality They have been incorporated into a measurement of real income, serving as a fixed-line poverty measure.

Household Costs and the Life Cycle: Martin Weale

Mr Weale presented some theoretical considerations relating to key questions raised by the HCIs:

- Democratic weighting implies that the HCIs should be used to deflate the geometric mean of income, rather than the arithmetic mean or median. Doing so makes the income measure coherent across distributions.
- Payments approach implies that we should consider items paid for in advance as well as in arrears. This would bring savings into scope, however we can't know what these savings will eventually be spent on therefore introducing a risk of double-counting.
- Durable goods require special treatment as the utility derived from them is spread out over time.
- Housing raises complex issues.
    - If only the capital costs of first time buyers is included then the contribution of a household depends on whether they stay in their first house.
    - Mr Weale demonstrated that including capital costs is easier to justify if houses last no longer than the buyer's lifetime.
    - Accounting for housing costs by means of capital and interest underweights housing costs over the life cycle.
- Including interest payments in the HCIs means that logically interest receipts should be included in the income measure.
- Considering insurance from a living standards perspective suggests treating increased risk as a price effect rather than a quantity effect

In conclusion, Mr Weale added that there is no theoretical obstacle to extending the HCIs to include taxes and interest payments and that some of the proposals for development risked making the HCIs unrepresentative of the average household.

Discussions

As well as contributing to the discussion in the room, attendees were invited to submit written comments. Mr Payne confirmed these should be received by the 25th of May (email to cpi@ons.gov.uk).

Following the published agenda, the discussions were initiated under the following topics:

- What should the HCIs be measuring?
- Where should we measure payments rather than acquisition prices?
- What other items should be in scope?
- What should be the development priorities moving forward?

Contributions to the discussion have been recorded and organised into themes.

Uses for the HCIs:

Mr Cox drew attention to public confusion (and suspicion) over the government's use of CPI and RPI when referring to "inflation". Where RPI used to be regarded as a measure of changing household costs there is now a gap that the HCIs could be filling. In order to be meaningful and understandable by the public the HCIs should not be concerned with income.

Mr Kumar advised that index users with a social policy interest are concerned with understanding real incomes and conducting their own analysis. For this reason, they would prefer a costs-only measure and flexibility in defining subgroups (e.g. lone parents). Groups we are concerned with today may not be the groups we are concerned about in future.

Mr Lennard initiated a conversation about the possibility of producing subgroups broken down by geography. Mr Payne described the difficulties created by small sample sizes for geographical subgroups. Southampton University are conducting research into the feasibility of geographical subgroups using currently available data, and with the introduction of alternative and more comprehensive data sources (e.g. scanner data) it may in future be possible to create regional price indices. Mr Kumar offered that even if producing regional price indices required aggregation over e.g. one quarter they would still be valuable.

Mr Astin noted that CPI was never designed to be used for uprating, therefore there is a need for another headline index that can be understood by the public as being for that purpose. There is space to also produce measures that combine costs and income but these should be viewed as specialist tools for professional analysts.

Mr Tily observed that the Trade Unions' main interest in price indexes is in their use as a reference point for wage negotiations and uprating. For this reason they would like to see developments made in the RPI. Mr Tily also expressed concern that the focus on subgroups may distract from structural considerations and asked if the HCIs may offer a way of addressing the formula effect.

Mr Grice welcomed the idea of producing a flexible range of indices but cautioned that an underlying intellectual framework would be required in order for them to be coherent.

Mr Lyon suggested that the National Accounts framework could be adapted to give the HCIs this conceptual coherence. Mr Fitzner commented that many parts of the National Accounts framework are highly abstract and technical and therefore not intuitive to the public.

Mr Penneck queried whether the two proposed uses for the HCIs – understanding living costs and indexation – might have some contradictions between them that have not yet been explored. This could be a starting point for an analysis of whether prices and incomes are being measured on the same basis. Mr Penneck then drew attention to the two different perspectives on HCIs demonstrated in the presentations. Examining living costs from the perspective of utility is different from examining them from the perspective of cash flow.

Mr Fitzner asked whether the HCIs should be focussed mainly on consumption. Mr Tily suggested that they should, as this gives the benefit of simplicity. Some exceptions could be made for e.g. housing costs and some forms of saving.

HCIs as a measure of utility or cash flow

Ms Leyland expressed the view that interest receipts should be considered in the income measure. Also queried whether the HCIs should be concerned with questions over the life-cycle or with utility, given that they are intended to be a point-in-time measure of households' experiences.

Mr Weale highlighted that overlooking the life-cycle would lead to the HCIs being a cashflow measure rather than a price index. This has implications e.g. treating net borrowing as income, which may not be the intended purpose of the measure.

Treatment of housing:

Capital costs

Mr Levell expressed concern that a transfer of housing stock from the public to the household sector would be reflected in the HCIs as an increase in costs. Similarly, if households were to shift the composition of their investment portfolios between asset types that are out of scope (e.g. stocks and shares) into assets that are proposed to be in scope (housing capital, private pensions) this would also be reported as an increase in costs. Mr Cox questioned whether the effects on each sector would cancel each other out.

Mr Astin explained the merits of only including deposits of first time buyers in a measure of housing capital costs. For the most part homeowners view an increase in house prices positively in a way that is not the case for e.g. cars. This would indicate that the public at large does not really view an increase in the price of housing as a cost. The exception to this is prospective first time buyers who are trying to raise capital for a deposit. Another argument against including housing transactions is that most house moves involve an upgrade or downgrade in the quality of the house, and price indices are concerned with like-for-like purchases.

Mr Heykoop connected the differing experiences of homebuyers resulting from changes in interest rates. Lower interest rates tend to drive up house prices, increasing the deposit requirements for first-time buyers but reducing monthly payments for existing mortgage payers.

Ms Leyland noted that many home buyers consider the relative size of rental and mortgage payments when deciding whether to buy a house, indicating that rental and mortgage payments should both be included in the HCIs. If there are concerns over what a mortgage payment inclusive HCI would represent, then a version could also be produced with mortgage payments excluded.

Mr Kumar argued that capital payments are simply the spread stream of payments for the service provided (by the house). Therefore, including capital housing costs is consistent with the payments approach of the HCIs.

Mr Heykoop highlighted that the Social Metrics Commission decided capital costs should be included in poverty measures as the remedies for reducing or removing these costs (sale of the house, restructuring the mortgage) are lengthy processes. Mr Athow acknowledged the importance of timescales in housing costs – in the short term they are not in households' control however they are in the long term. This creates challenges for designing the indices.

Mr Weale stated that the logic of a cashflow index requires that capital costs be included.

The payments approach

Mr Barnett raised the issue of the lag in rental price data (6 months) suggesting that this is inconsistent with a payments approach which is concerned with recording payments at the time they occur.

Mr Bentley shared the approach taken by Stats New Zealand, which was to take a pure payments approach to housing. The logic behind this was that homeowners are in a sense paying rent to the bank through mortgage interest rather than a landlord. The approach basically tracks the purchasing power of mortgage payments. There is no debt profile incorporated within the source data, which reduces the lag to one quarter.

Ms Leyland suggested that the measure of OOH payments currently produced by ONS was unsatisfactory as it did not take account of house prices, creating an index that was too flat. Mr Weale posited that the reason for this was that the measure did not take account of the change in the level of debt.

Mr Athow initiated a discussion over how far the ONS's current measures of mortgage interest payments currently incorporate the R x D approach advocated by Mr Weale. Ms Sands explained that the current ONS approach is more complex than the approach taken by Stats New Zealand. Ms Leyland confirmed that the price of a mortgage is currently taken to be the average effective interest rate. Mr Bentley restated that Stats NZ does not include a debt profile in their mortgage payments index where ONS does. Mr Athow asked if an analysis of the differences in the ONS and Stats NZ approaches could be carried out.

ACTION: ONS to investigate the effect of the difference between the Stats NZ and ONS approaches to OOH, and an adaptation to the ONS approach incorporating Mr Weale's R x D suggestion.

Other expenditure items in scope for the HCIs:

Mr Barnett proposed that the indices should focus on what consumers do spend their money on rather than make any judgements on what they should spend their money on. Deliberative polling is one way to address this.

Taxes

Mr Oulton stated that the suitability of including Council Tax depends on what the index is being used for. If it is being used for uprating then including Council Tax makes sense as the consumer would see it as just another price. If it is being used to measure standards of living then it is less important as the tax would be covered by the income analysis.

Mr Nason raised the question of the distinction between Council Tax and Income Tax for the purposes of inclusion in the HCIs. Ms Leyland responded that firstly Income Tax is generally deducted at source, which is a perceived rather than an actual difference, but more importantly Income Tax is by definition linked to income. Mr Astin added that Council Tax has a limited and far narrower range than Income Tax.

Mr Clarke asked if the HCIs could be designed in such a way that they are future-proofed against any changes to the tax regime. Could general principles for treating taxation be developed for the HCIs so that if, for example, Council Tax were to be replaced the HCIs would not need to be overhauled?

Mr Fitzner reasoned that including income taxes in the HCIs would make them another measure of disposable income in addition to the two that ONS already produce. From a practical point of view this would also create a lag of up to nine months due to the timelines of income data publication in the production of the indices, which would not be useful for informing policy debates and decisions. Mr Grice and Mr Fitzner discussed the risk arising from circularity if the index is used for uprating. A tax cut would cause the index to fall, which would lead to smaller increases in e.g. benefit payments.

Pension contributions and other savings

Mr Astin and Mr Weale discussed the scope of savings that should be included in a cashflow index. Mr Weale argued that there is no difference between paying the capital costs of a mortgage and paying into a savings account – both are essentially paying in advance for future consumption. Mr Weale and Mr Cox acknowledged the practical challenges for recording discretionary savings, therefore as a compromise it may be necessary to restrict the HCIs to contractual savings.

Mr Fitzner noted the increasingly mandatory nature of pension savings in the UK.

Mr Gardner questioned whether the payments approach adequately captures the quality dimension of pensions saving. If contributions are increasing in order to buy the same or lower standard of living in the future, should this be captured in the index? Mr Gardner then went on to make the point that if the HCI is used for uprating then the increase in pension contributions made by current workers to fund their retirements could lead to current pensioners also receiving higher payments, despite no longer contributing to pension savings. Mr Athow pointed out the further complication of increasing longevity, and the correlation between increased longevity and higher income.

Mr Gardner described trends in pension saving in the private sector, whereby employees that opt-out of their employer’s pension scheme are receiving the employer’s contribution in their salary. Ms Leyland drew a conceptual distinction between contractual and voluntary saving, suggesting that contractual savings are closer to Council Tax in their compulsory nature. Mr Levell revisited the earlier point about movements in portfolios, in that an increase in contractual savings might reduce voluntary saving, which would be reflected in the index if only contractual savings were considered.

Mr Fitzner initiated a discussion on whether non-contractual savings should be included in the index.

Mr Penneck considered that this would be guided by the uses of the index, especially for uprating purposes. Drawing on the example of pensions, it would not be appropriate to uprate pension payments using an index that included pension contributions for the circularity reasons outlined in the previous discussion. It may be appropriate to produce variants on the HCIs according to the purpose for which they are being used.

Mr Cox queried how pensions are different from other investments, which traditionally are not considered in price indices. Distinguishing between contractual pension contributions and voluntary contributions to e.g. a Self-Invested Pension Plan makes the topic complicated.

Mr Weale highlighted that including pension costs inevitably follows from the payments approach. Mr Cox reasoned that this would make all savings of any description in scope. Mr Weale concurred.

Second hand goods and the peer-to-peer economy

Mr Astin suggested that second hand cars should be included in the index given the widespread preference among consumers for buying second hand. Mr Fitzner invited suggestions for other second hand goods that might be eligible for inclusion. Mr Kumar enquired as to how much spending by the bottom quintile of households by income is in charity shops. If significant, then overlooking this would lead to the HCIs underreporting expenditure in lower income households.

Ms Sands drew a parallel between insurance and second hand goods, in that insurance premia and claims payments are inter-household sector payments and by that logic not only should second hand goods be included but also transactions in the peer-to-peer economy: Uber, AirBnB, etc.

Next stages of development

Ms Harris asked at what point the HCIs would be thought of as “finished”. Mr Athow outlined the process following the workshop: the discussion would be condensed into a paper to be presented to the Stakeholder and Technical Panels on Consumer Prices. From there a decision would be made on whether further developments are made to the approach used for the first two preliminary releases or whether a more fundamental redesign is required. The former option is presumed to result in quicker progress towards a national statistic.

Mr Penneck remarked that the HCI development is taking place against the backdrop of the known issues with RPI, and that this could present a time pressure for developing the HCIs as a replacement for RPI in its uprating functions. Mr Weale and others responded by observing that there was no appetite to repeat the experience of RPI, and that this could be avoided by ensuring the HCIs’ conceptual robustness.

Mr Bentley shared the experience of New Zealand, which was that HLCPIs have quickly been adopted in public conversations about living costs that were taking place anyway and having a published evidence base for these debates has been valuable.

Mr Tily suggested that future development should be given a higher profile to demonstrate that ONS is taking the task of replacing RPI seriously.

Annex D – Description of the Astin and Leyland[1] Household Inflation Index (HII) proposal

Concept	**HII approach**
a. Weighting	Democratically weighted (equal weight to each household's expenditure share)
b. Coverage	All UK households (rather than the UK economic territory)
c. Timing	Payments-based approach, rather than at the time of acquisition or use
d. Interest payments	Gross interest paid
e. University tuition	Included (payments approach)
f. Insurance	Gross premiums (inclusive of the 'claims pool' paid back out to households)
g. Taxation	Include certain taxes
h. OOH costs	All costs associated with owning a home
i. Capital housing costs	Include first time buyers and go some way towards including full housing market

[1] Towards a Household Inflation Index (2015), Astin & Leyland