

Developing an Index of Household Payments, summary of responses: Dec 2016

A representation of the comments received in response to our paper "Developing an Index of Household Payments" and the main points that have been raised. Our next steps regarding future development of this work are also provided.

Contact:
Helen Sands
CPI@ons.gsi.gov.uk

Release date:
19 December 2016

Next release:
To be announced

Table of contents

1. [Introduction](#)
2. [Overview of responses](#)
3. [Overview of Advisory Panels on Consumer Prices comments](#)
4. [Next steps](#)
5. [Summary of respondents](#)
6. [Detailed summary of responses](#)
7. [Detailed summary of Advisory Panels on Consumer Prices comments](#)
8. [Annex A – Future work plan](#)

1 . Introduction

In March 2016, the National Statistician, John Pullinger, wrote a letter to the chair of the UK Statistics Authority, Sir Andrew Dilnot, [addressing the future of consumer price statistics in the UK](#). In this letter the National Statistician committed to exploring the concept of an index that measures changes in household costs. This approach was first advocated in a paper by Astin and Leyland (2015), who proposed a [Household Inflation Index](#) that they argued would better reflect costs as understood and experienced by the household.

In August 2016, we released a paper [Developing an Index of Household Payments](#) that set out the discussion points for each of Astin and Leyland's proposals. The paper sought feedback from users on the purpose and scope of the index and its underlying methodology.

This article provides a representation of the comments received and summarises the main points raised. Although most of the responses followed the guidelines provided within the paper, responses to individual questions have been grouped into 4 themes:

- the need for a new measure
- frequency of production
- coverage, scope and methodology
- additional considerations

The paper was also discussed at the Advisory Panels on Consumer Prices (APCP) in September 2016. A summary of the discussions held is provided in this article and has been duly considered alongside the responses in determining our next steps.

We are grateful to everybody who took the time to respond to the paper and look forward to continuing working with our users to further develop this work.

2 . Overview of responses

Respondents to the paper represent a diverse range of users and hold an assortment of views. We received responses from individuals representing government departments, utility companies, trade unions and pension groups, as well as from members of the public.

There is general support for a measure that goes beyond the range of consumer price indices currently produced, although some questioned the concept and the gap that the index was filling. Some also highlighted that this work should not divert resources away from delivering other priorities. Many who supported the index felt that it should be used for uprating, while one noted that to meet this need it would need to be provided alongside a measure of income. A number saw the value in producing the index alongside a measure of income, however, they thought this should not hinder production if the income measure wasn't available to the same frequency.

Some respondents stated that to pursue this index a broader approach to measuring economic well-being of households should be used, using an objective definition of "outgoings", or matching a comprehensive measure of all outgoings with a similar measure of incomings. Some also propose that the focus should be on different household groups and not on a single aggregate measure.

Most who responded in favour of the index supported a more frequent publication. A number of reasons were provided, but mostly so that the index would be timely enough to be of use in indexation. Of those who did not support more frequent publication, the main reason was due to the availability of an income measure, but some also noted that monthly publication could result in undesirable competition or confusion with the regularly published measure of consumer price inflation.

Responses regarding the weighting, coverage, item inclusion and methodology underpinning the index were varied, highlighting that a clear theoretical framework is required before determining these factors. While many agreed with the proposals that were put forward by Astin and Leyland (2015), some respondents had their own views on how the index should be developed and some disagreed with specific proposals. Differences in opinion were particularly apparent with regards to the method of weighting and population or expenditure coverage. There was the most agreement with regards to the inclusion of interest payments and the use of a payments approach for higher education and owner occupiers' housing costs.

A number of respondents requested that the elementary aggregate formula be given more consideration in the development of this index. Other suggestions were for us to consider motor vehicle leasing and purchasing on a payments approach and to further consider quality adjustment within this index. A number of users requested we reconsider the branding of the index. Specifically, many thought the term "Index of Household Payments" to be inadequate or confusing.

3 . Overview of Advisory Panels on Consumer Prices comments

The majority of Technical Panel members were in agreement that there is merit in producing an index that goes beyond the range of consumer price statistics currently produced, but expressed that more clarity is needed over the concept. Some members thought that the index lacked a sound theoretical framework, and that there was an opportunity to build an index from the ground up (that is, start from a concept and build the statistical framework around it). Most members held the view that this measure would need to be presented alongside a measure of income, or income receipts, so as not to be misleading for users. Providing users with an index that doesn't take into account income received by households would only provide one side of the picture. Producing the index alongside an income measure would provide users with a more rounded view of a household's economic well-being.

The majority of the Stakeholder Panel supported this view and many members also believed producing indices for population sub-groups would be more informative than producing a single aggregate measure. However, a number of members held the view that an aggregate measure was still needed, as a reference point for the population sub-groups. Many members also believed the index would need to be published more frequently than annually to be of use.

4 . Next steps

In light of these responses, we will use the proposals as detailed in Astin and Leyland (2015) as a framework to develop a new measure that reflects household outgoings, or costs. As highlighted by the responses and discussions held by the APCP, there is still much that needs to be considered with regards to the coverage, scope and methodology underpinning the index. We are not yet in a position to make concrete decisions on what the index should or should not look like and as such we propose an agile approach to its future development.

Throughout 2017, we will release a series of focused analytical articles that will help shape development of the index. These analytical articles will include topics such as:

- producing comparable measures of income and price change
- investigating methods of weighting
- exploring differences between national and domestic population coverage
- calculating a price index for interest payments, the repayment of student loans and capital housing costs

A more detailed work plan can be found in Appendix A.

We will continue to engage with users throughout the next year, and aim to release the first experimental publication exploring changes to household income and costs by the end of 2017. We will produce population sub-groups and an aggregate measure will be provided for reference. Following user feedback, these indices will henceforth be referred to as the Household Cost Indices (HCIs).

Once we have clarified the concepts and scope of the index and successfully launched them as part of an annual publication exploring household income and costs, we will then work towards a quarterly publication and in parallel will explore more frequent measures of household income. Beyond 2017, we will also explore how a broader measure of economic well-being would look and consider building upon the index in the future to deliver a fully comprehensive measure of outgoings against a comprehensive measure of incomings.

With regards to elementary aggregate formulae, research summarised in a [review of consumer price statistics in the UK](#) (Johnson, 2015) has shown that the Carli formula is statistically flawed and can result in an upward bias in recorded inflation. Furthermore, the Dutot formula has been shown to respond poorly to heterogeneous prices and the Jevons cannot be computed with zero prices. CPI and CPIH use a mix of Dutot and Jevons indices, as appropriate. The same aggregation formula will be applied to the HCIs as is used in the CPI and CPIH.

A review of quality adjustment is also part of the [consumer prices development plan](#) and any outcomes of this work will be duly considered for the HCIs. We will consider motor vehicle leasing and purchasing as part of our exploration of a broader measure using an objective definition of outgoings.

5 . Summary of respondents

21 responses were received, summarised in Table 1:

Table 1: Summary of respondents

Government	5	Bank of England Greater London Authority HM Treasury Household Income and Expenditure Team (ONS) Incomes Monitoring statistical teams within the Department for Work and Pensions
Pension groups and trade unions	3	Age UK National Union of Teachers Public Service Pensioners' Council
Utility companies	1	SP Energy Networks
Other organisations	2	Royal Statistical Society RPI CPI User Group
Individuals	10	2 independent consultants 1 academic 7 individuals

Source: Office for National Statistics

6 . Detailed summary of responses

6.1. The need for a new measure

Most respondents believed that there is a need for a new measure that is a better reflection of household costs. One individual respondent felt that although there was obviously user demand, adding to the existing plethora was unnecessary and undesirable. One individual respondent did not feel that this exercise was a good use of ONS resource.

One government respondent felt that the index as it is currently proposed is undesirable and questioned what gap it would be filling. However, this respondent also felt that with some modification of proposals, valuable statistics could be produced that meet what are unquestionably important objectives and user needs. This would involve producing a comprehensive measure of outgoings and producing against a similar measure of incomings.

Another government respondent felt that in order to be of value, the index would need to be accompanied by comparable measures that capture the changes to household income and as currently presented the index is not comprehensive enough to deliver this. Both these respondents also felt that the measure would better meet user need if it were to focus specifically on those diverse groups of households of most interest to potential users.

Of those who felt that there was need for a new measure, 10 respondents believed that the index should be used for uprating purposes. One individual respondent noted it would be necessary to produce it alongside income to meet this purpose. A number of respondents also saw value in producing a measure alongside income, although they did not see this as being the primary purpose of the index.

Two government respondents need an index of this kind for the deflation of household income, as their current measures are not adequate.

One respondent saw this index being used in place of the CPIH as a macroeconomic measure.

6.2. Frequency of production

Of the 19 respondents who answered this question, 12 respondents felt that the index should be published monthly. The reasons given for this were: for comparison with consumer price measures; as different months are used for indexation; for an ongoing assessment of quality; and so the data is timely and relevant. Of these 12 respondents, 3 suggested this could be supplemented by an annual publication comparing the index with a measure of household income.

Two respondents stated that the index would need to be published more frequently than annually and that this could either be monthly or quarterly. The reasons given were so that users could have an index close to the time point relevant for their purpose. One further respondent recommended a quarterly publication.

The remaining 4 respondents to this question believed the index initially should be published annually or semi-annually (although 1 government respondent noted that this was an ONS decision). Reasons given were: due to the less frequent availability of an income measure; to avoid competition with the preferred measure of inflation; because from a practical point of view, producing to the same timetable as CPI and CPIH may be labour intensive; and to balance the costs associated with production with the benefits to users.

6.3. Coverage, scope and methodology

Responses regarding the weighting, coverage, item inclusion and methodology underpinning the index were varied, highlighting that a clear theoretical framework is required to better define these factors. Not all respondents answered all questions and 2 government respondents did not answer any questions in this section, with 1 highlighting the compilation of statistics is properly a matter for the independent UK Statistics Authority and ONS.

Weighting

Of the 17 who responded to this question, 11 respondents stated their preferred method was to use household expenditure weighting. Of those who gave reasons, the common response was that they felt this would more closely reflect the households' perceived experience of inflation. One of the 11 respondents stated household expenditure weighting should be used unless we can demonstrate economy-wide expenditure weights provide a satisfactory approximation.

Six respondents stated that they would prefer an economy-wide expenditure approach, with more varied reasoning. Of those who expanded their answer, 1 respondent highlighted that this method would make the index compatible with the existing CPI and allow the component indices to be aggregated up to a national total, which could be compared with the CPI. One respondent stated that the use of a household weighted index is contrary to international best practice and is therefore untenable. One respondent stated that their preferred approach was to use economy-wide expenditure weighting but that this should exclude luxury and fashion goods.

Coverage

Of the 16 who responded with their preferred population coverage, 12 respondents felt that all UK households should be included. One of the 12 respondents noted that it is not clear whether the changing prices experienced by institutional households would significantly differ from those experienced by private households and some further sensitivity analyses would be welcome. Another of these 12 respondents preferred covering all UK households, but noted that UK private households would be acceptable. One respondent highlighted that although all UK households would be preferable, this would be problematic in practice, as there is little information about expenditure patterns of institutional households. Four respondents preferred that only private UK households were included, with one noting this should include expenditure of all private households (as in, not excluding highest earners and pensioners).

Of the 16 who responded on expenditure coverage, 12 respondents preferred a national approach. However, 5 of these 12 respondents noted the difficulties in calculating national expenditure. One respondent felt it seemed the difference would be negligible so the simpler method should be chosen. Three respondents preferred a domestic approach, of these, 1 respondent highlighted that we should not be including foreign countries inflation in a UK measure, while another respondent noted that as the UK authorities have no direct influence over price movements in foreign countries, only domestic expenditure is relevant.

Approach to timing

Of the 15 who gave a response on their preferred approach to timing, 12 respondents expressed a preference for a payments approach with many adding this is appropriate as it is when changes to cost impacts the household budget. Five of the 12 respondents noted that there are only a few categories of expenditure where the timing difference is sufficiently important to matter. One of the 12 respondents noted that the differences in approach are particularly important in cases of payments in advance. One of the 12 respondents suggested that the details of this approach could involve lagging prices for delayed payments and that, for items being received in the future, prices would need to include how far they are bought in advance as an attribute.

Two respondents preferred an acquisition approach to timing, 1 respondent reasoned that this would be more practical while 1 suggested that this would allow a more coherent and sensible approach to the treatment of interest on student loans. One respondent stated that their preferred approach to timing was consumption-based.

Interest payments

Of the 17 who responded to this question, all preferred that some form of interest costs should be included. The majority of respondents felt that this should include all types of interest. However, 1 respondent suggested that this could be limited to interest charges on credit cards and overdrafts, as they are most likely to relate to expenditure incurred on consumption items. This respondent also noted that it would be difficult to disentangle bank loans for consumption items from those taken out to pay for home improvements.

One respondent suggested that interest liabilities incurred should be included, but not payments and 1 respondent felt that a loan should be included as it is paid (including both capital and interest). One respondent highlighted a problem of mortgage loans that are refinanced to, for example, buy a sailboat or send a child to university. This respondent felt that it was contentious whether this part of mortgage interest should be included in the expenditure weight of the index.

Student loans

Of the 14 who responded to this question, 13 believed that both the interest and principal repayment of the student loan should be included, as well as the fees relevant to those who have paid up front for their education. One of these respondents felt that although they'd prefer this method for the tuition fee aspect of the loan, only the interest on the maintenance loan should be included, so as to avoid double counting. In contrast, 1 respondent highlighted that loan repayments are a return of capital and are therefore transfer payments, not payments for the receipts of goods or services and are not relevant to a price index. This respondent favoured an acquisition cost approach to measuring the cost of higher education.

Insurance

Of the 16 who provided a preference for insurance premiums (not including life insurance), 14 felt that the expenditure for insurance premiums should be included in the index with no adjustments made for insurance payouts. Two of these 14 respondents suggested that, to avoid double counting, expenditure could be reduced elsewhere. While 2 respondents suggested that the income from insurance payouts could be included in a comparable income measure, 2 respondents noted that insurance payouts are compensation of loss and as such don't leave a household any better off. Two respondents felt that the weight for insurance premiums should be net of payouts, One respondent gave the reason that this would avoid double counting.

There was less agreement with regards to life insurance premiums. Of the 16 who responded to this question, 3 stated that they had no opinion. Eleven respondents wanted to see life insurance included, with 7 of these respondents making the distinction between life insurance and life assurance. Six of those who made the distinction favoured life insurance being included as it's only payable on death, with the exclusion of assurance where premiums are more like a saving or investment. Another respondent suggested that both insurance and assurance should be included because a payment is certain on eventual death, it is not a savings contract. One respondent felt that because life insurance is often regarded as a form of savings it should not be included.

Taxation

Of the 15 who responded to this question, all respondents held the same view, that taxes that impact on the household's budget (such as Council Tax, Stamp Duty, VAT and Vehicle Excise Duty) should be included and taxes on income (such as Income Tax and National Insurance contributions) should be excluded from the index.

Owner occupiers' housing (OOH) costs

Of the 15 who favoured a method for OOH costs, 14 respondents held the view that a payments approach should be used, including everything a household would typically consider as part of their outgoings. One respondent felt that an acquisition cost approach should be used, noting in reality this is not very different from the payments approach when mortgage interest is paid monthly.

Capital housing costs

Of the 16 respondents who provided a view on this subject, 15 respondents felt that some element of the capital cost of housing should be included. Of those who suggested a method, 5 respondents felt that the cost to first time buyers should be fully captured. Four of these respondents also felt that costs faced by subsequent buyers should be included, with their expenditure net of any finance they received from the sale of their first property. One respondent felt that costs to all buyers should be included and the index should be calculated in the same way as for other loans (such as student loans). Another respondent felt that all capital housing costs should be included, but suggested this should be recorded at the date of acquisition. One respondent felt that capital housing costs should be covered in respect of depreciation and opportunity costs and 1 respondent did not favour the inclusion of capital housing costs at all.

6.4. Additional considerations

In response to these questions the most common response was with regards to the terminology and branding of the index. Nine respondents suggested that the name "Index of Household Payments" was inadequate or confusing and many of these respondents proposed "Index of Household Prices" as an alternative.

Seven respondents requested careful consideration over the choice of elementary aggregate formula, with some explicitly favouring Dutot or Carli over Jevons (the main formula used in the calculation of the CPI and CPIH). One respondent raised quality adjustment as an additional consideration, stating that the Johnson Review's analysis in this area was criticised and arguably understated the negative effects of current methods of quality adjustment.

One respondent suggested that both motor vehicle leasing and motor vehicle purchases should be given the payments approach. While another respondent expressed concern over a heavy reliance on Living Costs and Food Survey data since it excludes institutions and has only a 50% response rate.

One respondent focused their additional comments on coherence and defining the concepts. They felt that the discussion pointed towards using existing methods wherever possible and that their preference would be to define the concepts and then work out how best to measure them. They highlighted that if that resulted in differences of approach from, for example, the CPI then that is acceptable so long as the difference is explainable.

Two respondents highlighted the need for clear documentation on the items included, the basis on which the index is calculated and the data sources used. These respondents felt that users needed to be fully informed of the differences so they could make informed decisions as to which index is appropriate for a particular use.

One respondent questioned the significance of households' perception of inflation, stating that the aim of making statistics understandable need not come at the expense of coherency and accuracy. If we are seeking to measure consumer spending, then this is what we should measure, not users' perception of consumer spending.

7 . Detailed summary of Advisory Panels on Consumer Prices comments

7.1. Technical Panel

Members of the panel expressed confusion over the term “payments” and the concept of a “basket of payments”. Concern was also expressed as to how well this index fitted alongside economic theory and questioned how it would fit into the broader perspective. Mr Astin, a member of the Technical Panel, expressed that the way the index had been presented in the ONS paper made it appear not to be a prices index, as had originally been proposed for the “Household Inflation Index”.

The members debated as to whether this should be seen as a measure of inflation. Some members, including the Chairman, were clear it was not a measure of consumer price inflation partly at least to the inclusion of interest payments. Other members pointed out that it was difficult to define inflation and that there are numerous ways in which to measure it.

The panel articulated the need for a clearly defined purpose, or concept to drive the index. Some members of the panel were also dissatisfied with how the index had been presented. It was questioned whether there really was a user need.

Some members of the panel agreed there is room for an index beyond the consumer price indices currently produced and this could be useful as a welfare index, or for annual indicators of living standards of different types of households. To do this the index would have to sit alongside a measure of income, or against household income receipts – however, this would need exhaustive data on monetary transactions made by households.

One member commented that developing the index from scratch could provide ONS an opportunity to work in a different way, the index could be set out scientifically and a bottom-up approach could be used to develop it (that is, start from a concept and build the statistical framework around it). Again, a clearly defined purpose is necessary before this could be achieved.

Members of the panel raised the issue that it may be difficult to determine what households consider their expenses and what the perceived experience of a typical household actually is. It was also noted that different baskets may be needed for different population sub-groups. An item may not meet the overall expenditure guideline used for CPI or CPIH and there may be an item that a particular population group spends a significant amount of money on that is not included in CPI or CPIH.

7.2. Stakeholder Panel

The Stakeholder Panel questioned what gap this index would fill. It was suggested that there was a gap between the CPIH and a Cost of Living Index (COLI) and the index could be seen as a bridge to the RPI.

Concerns were raised by a few panel members over the proposed frequency of production (annual). It was stated that if this index were to be used for uprating, an annual publication would not be useful. It was pointed out negotiations take place at different times during the year, so timely indices would be essential.

The majority of panel members felt strongly that this index could not be released without a comparable measure of income as this could be very misleading. One panel member stated that if released on its own, the Index of Household Payments (IHP) had the potential to be “systematically and deliberately misused”. This is because the IHP as it currently stands would capture only the cost of a rise in interest payments on households who are net borrowers and on its own there would be no way of capturing the corresponding rise in income for households who are net savers, who would benefit from the rise in interest rates. It therefore would not be suitable for an uprating index.

One member said that the example used in the ONS bulletin, the Effects of Taxes and Benefits on Household Income, paralleled with the Department for Work and Pensions (DWP) measures, Housing Below Average Income (HBAI – before and after housing costs). This opens up the idea that there could be many different versions of the index.

The panel debated whether a single aggregate index was useful, or whether population sub-groups would paint a better picture. The purpose behind this index is to measure the experience of a “typical household”, but there is a wide spectrum of households with different experiences, which would not be captured by an aggregate index. Some noted that sub-groups would be useful in understanding the experience of different types of households and particularly in identifying vulnerable groups. Some of the panel members believed that just producing indices for the groups was more relevant. Others argued that these sub-group indices could be aggregated anyway and a single measure was still needed.

Further questions were raised by the panel including:

- How important are the perceptions of a household? It is not feasible to capture a household’s perception because perception is subjective.
- What should be the boundary of the conceptual frame?
- What research is there to back up the assumptions made about household perceptions?
- Won’t this encourage “inflation shopping” by users?

8 . Annex A – Future work plan

Note: this document provides our current timetable for future development of the Household Cost Indices (HCIs). Many of the projects within this plan are dependent on resource, as well as sourcing and acquiring data, which may take longer than the expected completion date. As such, this timetable is subject to change, and should only be treated as a guide.

2017

Table 2: Work planned for 2017

Project	Title	Expected Completion
1	Investigate production of comparable measures of income and price change	Quarter 1 2017
2	Investigate different methods of weighting	Quarter 2 2017
3	Explore differences between national and domestic coverage	Quarter 2 2017
4	Source data and develop a methodology for calculation of interest payments on all loans	Quarter 3 2017
5	Source data and develop a methodology for calculation of student loan repayments	Quarter 3 2017
6	Source data and develop a methodology for calculation of the capital cost of housing	Quarter 4 2017
7	Produce experimental Household Cost Indices (HCIs) as part of a wider analysis of household income and costs.	Quarter 4 2017

Source: Office for National Statistics

2018 and beyond

Table 3: Work planned for 2018 and beyond

Project	Title	Expected Completion
1	Pause and review on response to first publication. Identify areas that need continued development.	Quarter 1 2018
2	Review the scope of the index according to an objective definition of outgoings	Quarter 2 2018
3	Investigate expansion of both household income measures and HCIs to provide a comprehensive measure of outgoings against a comprehensive measure of incomings	Quarter 3 2018
4	Revise and update publication of HCIs as part of wider analysis of household income, expenditure and costs	Quarter 4 2018 Quarter 4 2019
5	Increase the frequency of an income measure and systematise production of the indices	Quarter 4 2019

Source: Office for National Statistics