

## ADVISORY PANEL ON CONSUMER PRICES

**Communicating ONS statistics on the website**

Expected publication: Alongside minutes.

**Purpose**

1. In the September 2025 Stakeholder Panel a discussion was held on ways by which the detailed tables published by ONS could be improved. It was agreed that time would be set aside at the first panel of 2026 to allow Panel members the opportunity to discuss the way statistics on core, goods and services are presented in the published tables. It was also agreed that Panel members could comment on the draft transformed consumer prices bulletin.
2. An interesting topic of conversation Prices Division have had when discussing the transformed bulletin with the ONS publishing team was the inclusion of what's called a 'waterfall chart' to describe changes in annual contributions. There appear to be pros and cons in including a waterfall chart rather than the bar charts currently used, and the publishing team are keen to receive feedback from expert users to build on the feedback they've already received from user testing with those who are less familiar with consumer price statistics.

**Actions**

3. As such, we invite the Panel's feedback on:
  - a. The way statistics on core, goods and services are presented in the published tables.
  - b. The new style of transformed CPI/CPIH bulletin.
  - c. The use of 'waterfall charts' over the bar charts that are currently used in the bulletin.

**Presentation of published detailed tables**

4. Alongside the consumer prices inflation bulletin, ONS publish around 40 tables each month with additional detail for users. The tables published have changed over time, as new requests for data come in and as previously-requested tables become less necessary.
5. At the Stakeholder Panel in September 2025 a Panel member made suggestions around how the data relating to core, goods, and services CPI and CPIH were presented. As such, it was agreed that a link to the tables would be provided to the Panel and that time would be set aside at the next meeting to discuss the way statistics on core, goods and services are presented in the published tables. The published tables can be found [here](#).

*Question – do Panel members have any views on the way statistics on core, goods and services are presented in the published tables?*

**Transformed bulletin**

6. While discussing the published tables the new style of bulletin was referenced by a Panel member. Although a link to the transformed bulletin has been circulated for comment in the past it was thought that it may be helpful to provide another opportunity for Panel members to provide feedback.
  
7. As such, the blog explaining the background to the transformed bulletin can be found [here](#) and the bulletin itself can be found [here](#).

*Question – do Panel members have any feedback on the transformed bulletin?*

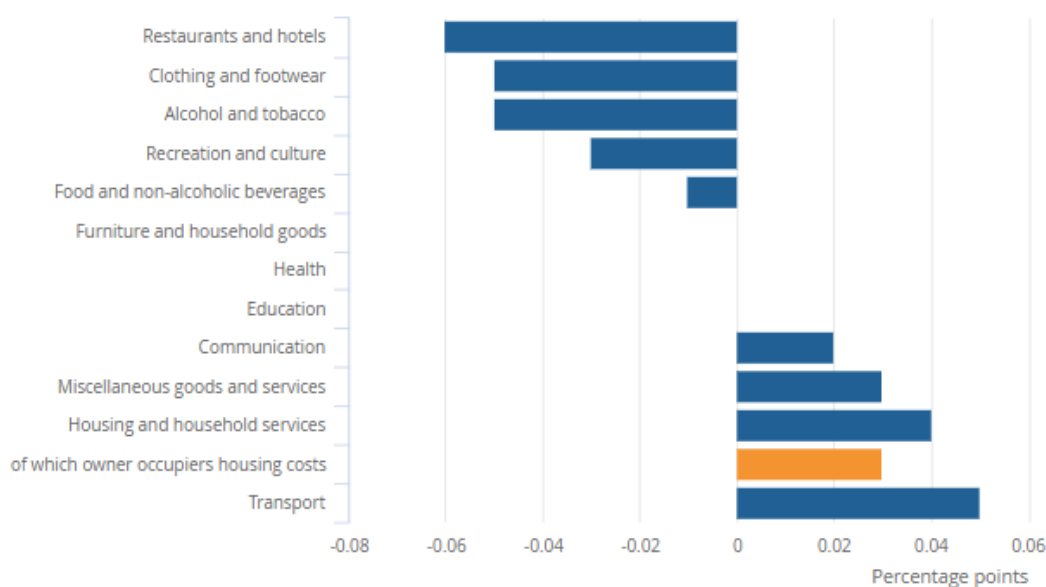
**Waterfall charts**

Prices Division have been working with the publishing team to refine the new style of bulletin and one topic of discussion related to the use of ‘waterfall charts’ as opposed to bar charts for describing the change in annual contribution between two months.

By way of example, changes in contribution to CPIH in December 2024 were presented in the bulletin as follows,

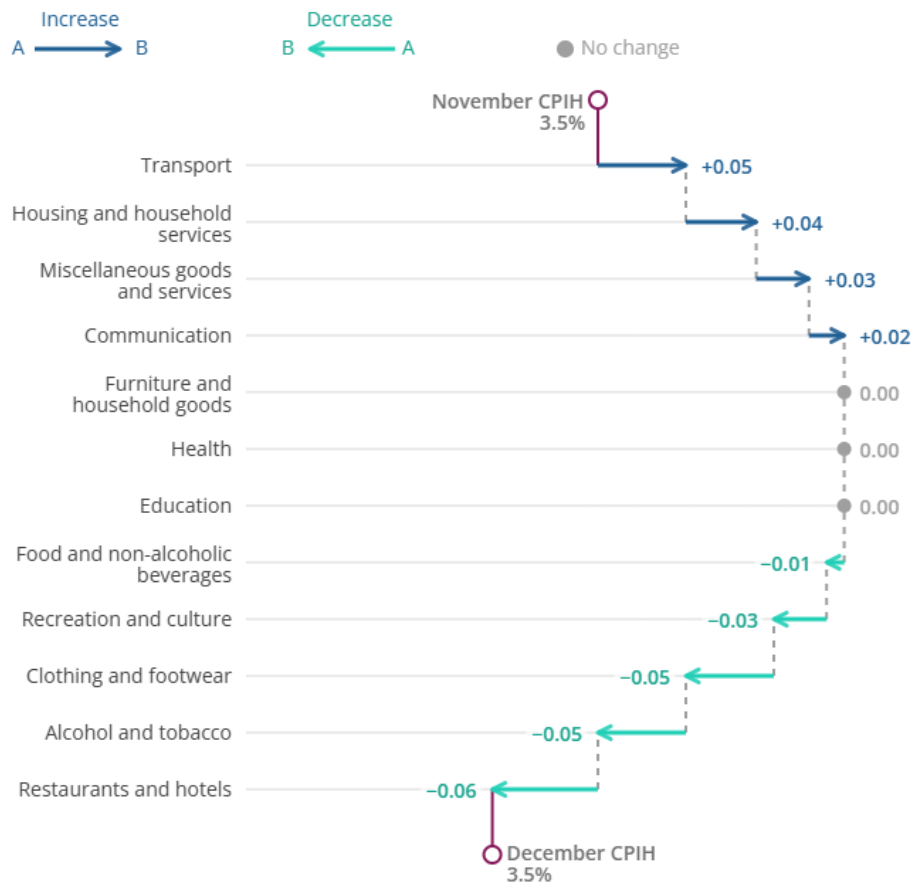
**Figure 2: Downward contributions to the change in annual CPIH inflation from five divisions, led by restaurants and hotels**

**Contributions to change in the annual CPIH inflation rate, UK, between November and December 2024**



Another way of presenting the same data would be in the form of a ‘waterfall chart’ as follows,

**Figure 2: Contributions to change in the annual CPIH inflation rate, UK, between November and December 2024**



Source: Consumer price inflation from the Office for National Statistics

It could be argued that a waterfall chart makes more explicit the link to what's being measured (i.e a change in the rate of inflation from one month to the next) because it references the starting inflation rate in the previous month, before referencing the inflation rate in the current month. The chart could also be seen as helpful because it lists changes in contribution against each division rather than only on the x-axis.

It could be argued that a waterfall chart is less helpful because rounding discrepancies can lead to the start and finish point of the waterfall being in different places on the x-axis, even if the rate of inflation to one decimal place is the same. This can be seen above where the rate of inflation was 3.5% in both months, but the December end point is considerably farther left than the November start point.

It could also be argued that a bar chart makes clearer what the largest contributors to change are. And whereas communicating owner-occupied housing costs while also making it obvious that they're part of the housing and household services division can be done fairly effectively by making its bar a different colour, it's not as obvious how to communicate that in a waterfall chart.

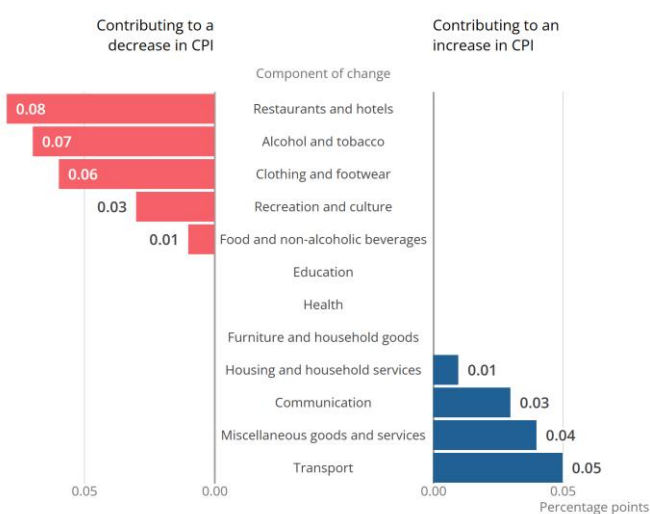
User testing has been carried out by the publishing team but only six users have been canvassed for their opinion. The key findings from the testing were that,

- All users understood both types of chart, so any changes wouldn't be because users don't understand what is currently published, but would be because there's an opportunity to improve the way we communicate the data.
- Three users preferred the waterfall charts
- One preferred the bar charts
- Two said the bar charts were quicker to understand but the waterfall charts told the story better when you spent the time reading it.

An alternative to a waterfall chart could be an amended bar chart as follows,

**Figure X: Restaurants and hotels had the largest downward effect on annual CPI inflation**

**Contributions to change in the annual CPI inflation rate, UK, between November and December 2024**



This chart takes some of the advantages of the waterfall chart by making more clear what the bars mean and listing the contribution figures by each bar. It would also be possible to include an owner-occupied housing bar in a different colour in the relevant place.

It's also true that a uniform approach doesn't have to be taken to the CPI and CPIH change in contributions charts. One chart could be a waterfall chart and the other could be a bar chart, in fact doing so may provide an opportunity for further user testing.

*Question – how useful would it be for the CPI and CPIH change in contribution charts to move to being a waterfall chart or a modified bar chart?*

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