New dataset – contributions to euro area annual inflation

Since June 2004, the Harmonised Index of Consumer Prices (HICP) news release included a table and comments on sub-indices with the largest impacts on the euro area all-items annual inflation rate (last table of the HICP news release). Impacts showed the change in the all-items inflation rate due to the inclusion of a particular sub-index in the HICP. They could be interpreted as the difference between the HICP including and excluding this particular sub-index. So far, the HICP news release listed sub-indices (from the four-digit ECOICOP) with the three largest positive and three largest negative impacts for the respective month. The impact data were not published in the Eurostat online database.

Beginning with the HICP news release of 23 February 2018, the euro area impact measure will be replaced by a new one: contributions to euro area annual inflation. Contributions are better known among users and more widely analysed. They quantify the importance of a component (sub-index or an aggregate) to the all-items inflation rate and can approximately be interpreted as the difference between the actual all-items inflation rate and that which one would obtain if this particular component remained unchanged.

The contributions are calculated in a way that ensures their additivity, meaning that the all-items inflation rate can be decomposed into the sum of the contributions of the components. The mathematical formula for contributions is available in the HICP Methodological Manual (1).

In the HICP news release, the impacts table will be replaced by a new one showing time series of the contributions of four main special aggregates to euro area annual inflation: 1) Food, alcohol & tobacco, 2) Energy, 3) Non-energy industrial goods, and 4) Services. The sum of the contributions of these four main special aggregates is equal to the all-items inflation rate. Contributions will also be shown for the sub-components of the special aggregate Food, alcohol & tobacco, i.e. Processed food, alcohol & tobacco, and Unprocessed food.

The new table with contributions’ time series of selected special aggregates will provide information complementary to that given in the second table of the HICP new release, which shows time series of inflation rates for the special aggregates as well as their weights in the basket.

The contributions data are presented with two decimal places. Due to the use of unrounded figures in all steps of the calculations, including unrounded input data, the sum of the contributions may not exactly match the all-items inflation rate, which is presented with one decimal place (2).

More detailed information including longer time series will be offered to users in Eurostat’s online database. The time series of contributions will be updated with each HICP news release.

The monthly data will become available for users in the Eurostat online database as follows:
- contributions for the four-digit ECOICOP: monthly data starting January 2002 for the euro area – as of 23 February 2018;
- contributions for the five-digit ECOICOP: monthly data starting January 2018 for the euro area – in the first half of 2018.

Contact: Unit C.4, ESTAT-HICP@ec.europa.eu

(1) Section 8.5.3 Contributions to the annual rate, equation (8.29a). The draft HICP Methodological Manual is currently available on CIRCABC but soon to be finalised and published by Eurostat on their website. A numerical example is available in the Annex to the HICP Methodological Manual (see column M in sheet ‘Annual rate’).

(2) All inflation rates derived from the HICP are published with one decimal place by convention. The underlying indices used in the calculation of euro area inflation rates are rounded to two decimals beforehand.