

The Consumer Price Index: changes for 2018

The Consumer Price Index (CPI) follows each month the prices of a fixed basket of products. This basket is updated each year in order to remain representative of the consumption and in order to take into account the evolution in the consumer habits (Laspeyres-type indice). Each year a chain-linking of the indice is performed in January and enables to update the basket of products and their weights and possibly permits to introduce some methodological improvements.

The weight update

Each year in January CPI and HICP weights are updated for the current year. These weights are used in order to aggregate 21,000 elementary indices for different consumption segments and geographical areas. These weights represent the share of each consumption segment in the total household consumption (in the scope of the CPI). They are mainly obtained from national accounts and their annual estimates of household consumption but also from different detailed specialist sources.

More specifically, the weights are based on the annual estimates of household consumption of national accounts, now in basis 2014 (in basis 2010 before). This change has, for consequence, new evaluations of CPI and HICP weights for household consumption items. In addition to changes in levels of some products due to the reconciliation between the national accounts and the balance of payments estimates, the main change relates the reclassification of the entire contribution to public broadcasting as general government individualisable expenditure. This change has no effect on the weights of the CPI, but only on those of HICP: the contribution to public broadcasting no longer participates in the HICP and the weight of the item "09.4.2.3.1 Television and radio licence fees, subscription" is diminished.

The update of the products in the CPI basket

Each year, the product sample is updated in order to take into account changes in the household consumption. The products that are no more representative in 2017 are dropped from the CPI basket meanwhile new products (new electronic products, new services in particular), which represent a huge or an increasing market share, are introduced. It's also an opportunity to take into account new habits of consumption (internet consumption in particular) and sometimes to adapt the collection protocol to follow prices at best (retirement homes, maintenance and vehicle repairs, fresh products). The prices of these new products are collected from December 2017 in order to measure their price evolution between December 2017 and January 2018 and so that they contribute to the CPI from January 2018.

In addition, the sample of sale points is updated periodically. At the end of 2017, the sample of institutions surveyed with the aim of measuring the evolution of tertiary education prices was fully reviewed with the help of the Department of evaluation, foresight and performance (DEPP) of the ministry of national education.

Changes in the second hand car index methodology

As opposed to other type of goods, prices of used cars do not come from real observations but from the "Argus", which is a journal publishing reference prices for used cars. In order to make the index as representative as possible, three types of cars are considered : one-year, three-year and five-year-old vehicles. Prices for 123 models are registered each month. However, for a given model, the Argus does not indicate comparable prices: for a one-year-old car whose prices are measured in 2017, the price corresponds to a model registered in July 2016 (similarly, the car for 2016 was registered in July 2015).

Note méthodologique

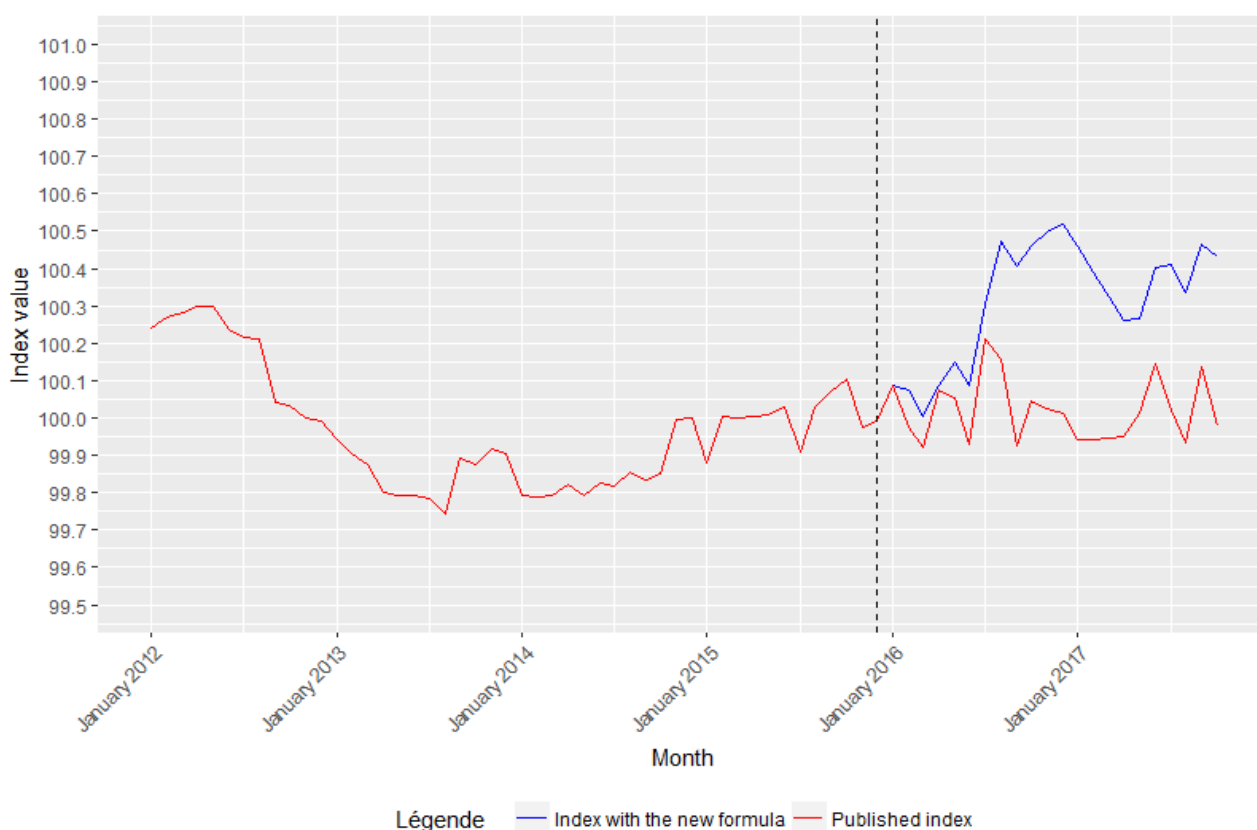
Hence, the car is older and older during the year of observation (from 6 months old in January to 1 year and 5 months old in December), which introduces a bias for the price evolution, which should be measured with a constant quality.

In order to overcome this problem, year-on-year rates of increase are used. This allows us, for each model, to compare, for months m and $m-1$, the prices of cars registered in the same month. Then the twelfth root of this rate is taken, and multiplied by the index of the car for the month before. For each vehicle age (1 year, 3 years, 5 years), these elementary indices are then aggregated with a geometric Laspeyres formula, weighted by the shares of sales of the cars inside this subsample. In a similar way, these three ages are then aggregated using the shares of sales of each car age in the total sample.

Using a year-on-year rate produces a lag in the measure of inflation. However, the long-term effect is negligible compared to the bias (described above) that this rate enables us to remove.

For years 2016 and 2017, the difference between the published index and the one computed with this method does not exceed 0,5% (see graphic 1).

Graphic 1 : Comparison between the new formula and the index published for used cars



The update of seasonal adjustments and seasonal adjusted indices

As each year seasonal adjustments for the all-item indice (France, all household) and for four indices of core inflation have been revised over the period January 2000- December 2017 taking into account the 2017 data.