EUROPEAN COMMISSION
EUROSTAT

Directorate C: Macro-economic statistics
Unit C-4: Price statistics. Purchasing power parities. Housing statistics

New HICP indicator

Difference between monthly rates of the HICP and the HICP at constant taxes

Eurostat has developed a new indicator that shows the difference in monthly rates between the HICP, on the one hand and the HICP at constant tax rates (HICP-CT) on the other ([1]). It shows the extent to which tax changes may affect a particular sub-index.

As the name suggests, this indicator is defined as the difference between the HICP and the HICP-CT monthly rates of a given sub-index. In most cases, the value of this indicator is zero, which means there was no change in the tax rate for a given month. However, if the value of the difference between the rates of HICP and HICP-CT is positive, that would indicate an increase in the tax rate approximately equal to the difference between the rates ([2]). Similarly, a negative value would indicate a decrease in the tax rate (see Example 1).

Example 1

| UNIT	Monthly rate differences between HICP and HICP at constant taxes	
COICOP	COICOP X	

GEO/TIME	COUNTRY Y	Interpretation
2018M08	0	No tax change
2018M09	-1	Tax decrease of 1% approx.
2018M10	0	No tax change
2018M11	0	No tax change
2018M12	0	No tax change
2019M01	5	Tax increase of 5% approx.
2019M02	0	No tax change
2019M03	0	No tax change
2019M04	0	No tax change

([1]) The HICP-CT is a variant of the HICP that measures inflation. As HICP-CT is not affected by changes in taxes on products, it measures changes in consumer prices by keeping the tax rates constant and assuming that tax changes are passed on immediately and in full.

([2]) Since the HICP-CT is compiled with the previous lower tax rate, it would lead to a lower monthly price change compared with HICP. The difference between the HICP and the HICP-CT monthly rates of change thus corresponds to the contribution of the tax change to price change (again with the assumption that tax rate changes are transmitted immediately and in full).

Due to the HICP-CT methodology, a tax change can cause the monthly rates of the HICP and the HICP-CT to be different not only in the month when the tax change occurs but also in the following months, though at a much smaller scale (^{3}). However, since the indicator is expressed as an integer value for all sub-indices (^{4}), it is unlikely that a tax change would trigger a value different from zero later in the year (see Example 2).

Example 2

Differences between HICP and HICP-CT monthly rates (percentage points).

Tax increase

Tax decrease
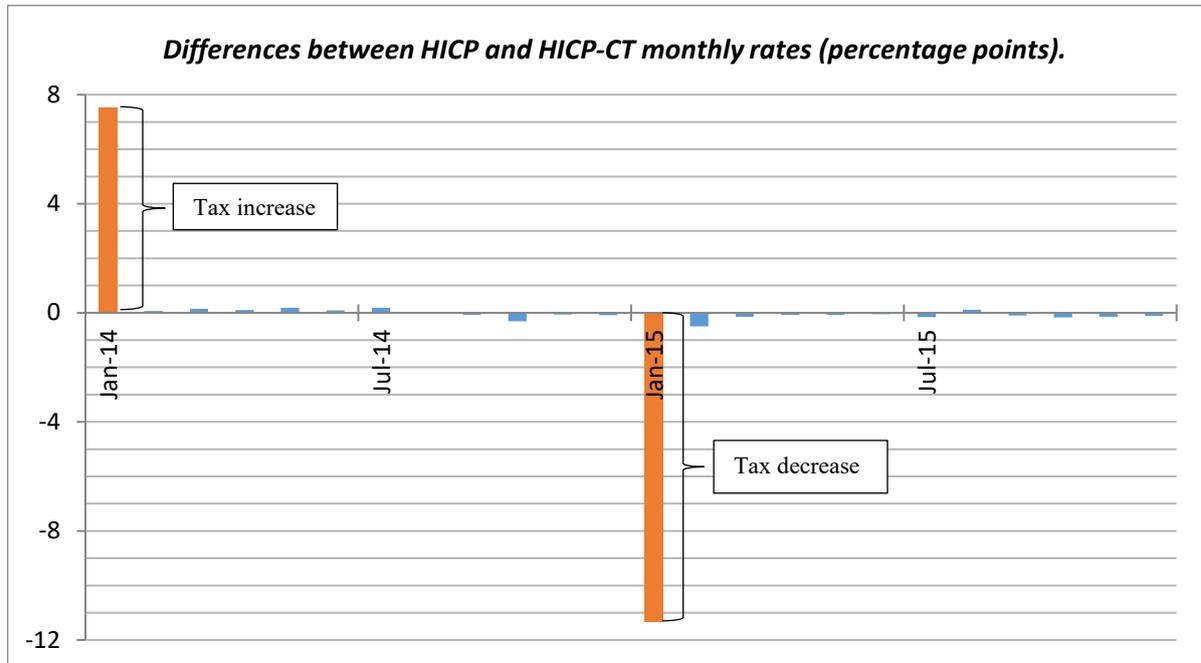
As can be seen in the example above tax changes in January (in red) generate many subsequent small differences during the rest of the year (in blue). However, they will be rounded to 0 and thus none of them would suggest a tax change had occurred.

The new indicator is available under the 'HICP at constant taxes – monthly data (monthly rate of change) (prc_hicp_cmon)' dataset, as unit of measure 'Monthly rate differences between HICP and HICP at constant taxes' (RT_M_DF).

(^{3}) That effect would continue until the end of that year. From the following year onwards, as the series are chained-linked to the previous December, those differences will disappear.

(^{4}) The all-items is published with one decimal.