

INFLATION LINKED BTPs (BTP€is)

Note on the rebasement of the Harmonized Index of Consumer Prices (ex-tobacco)

Starting from the release of the January 2016 index – that takes place on the 25th of February 2016 – Eurostat¹ will change the reference year for the Harmonised Indices of Consumer Prices (HICPs). In particular Eurostat will take as the index reference period (base) 2015 = 100 instead of the 2005 = 100 used so far.

This change also affects the Harmonised Indices of Consumer Prices with the exclusion of tobacco (HICP ex-tobacco), which is the indexation parameter for the BTP€is, the BTPs linked to European inflation.

Starting from the 1st March 2016, in order to calculate the Indexation Coefficients, for all BTP€is bonds outstanding, the Reference Inflation Indices at the initial accrual date must be rebased in the new 2015=100 base from the 2005=100 base. Here follows the procedure to be applied:

1. A rebasing key (C_{RB}) – identical for all BTP€I outstanding - enabling the rebasing from the old base (2005=100) to the new one (2015=100), is obtained with the following formula:

$$C_{RB} = \frac{IE_{dec\ 2015}^{base\ 2015}}{IE_{dec\ 2015}^{base\ 2005}}$$

where:

- $IE_{dec\ 2015}^{base\ 2015}$ is the Eurostat HICP ex-tobacco of December 2015 expressed in the new 2015=100 base, **released by Eurostat on the 25th of February 2016;**
- $IE_{dec\ 2015}^{base\ 2005}$ is the Eurostat HICP ex-tobacco of December 2015 expressed in the old 2005=100 base, **already published by Eurostat (equal to 117.21).**

¹ <http://ec.europa.eu/eurostat/documents/272892/272971/HICP+reference+year+2015%3D100/>; <http://ec.europa.eu/eurostat/documents/272892/272974/Information-re-referencing-2015/> and <http://ec.europa.eu/eurostat/web/hicp/overview>.

2. The Reference Inflation Index at the initial accrual date rebased from 2005=100 to 2015=100 is calculated as follow:

$$RI (\text{initial accrual date})_{\text{base 2015}} = RI (\text{Initial accrual date})_{\text{base 2005}} * C_{\text{RB}}$$

where:

- C_{RB} is the rebasing key (as calculated at point 1.) without rounding;
 - $RI (\text{initial accrual date})_{\text{base 2005}}$ is the Reference Inflation Index at the initial accrual date expressed in the 2005=100 base;
 - $RI (\text{initial accrual date})_{\text{base 2015}}$ is the Reference Inflation Index at the initial accrual date expressed in the 2015=100 base cutting off the result of the above formula at the sixth decimal and then rounding at the fifth one.
3. The daily Indexation Coefficients ($IC_{d,m}$: d (day); m (month)), starting from the 1st March 2016 ongoing, are obtained cutting off the result of the following formula at the sixth decimal and then rounding at the fifth one:

$$IC_{d,m} = \frac{RI_{d,m}}{RI (\text{initial accrual date})_{\text{base 2015}}}$$

where:

- $RI_{d,m}$ is the daily Reference Inflation Index (at day d and month m) calculated as a linear interpolation of the HICP ex tobacco with base 2015=100 of the months $m-3$ and $m-2$, according to the standard conventions;
- $RI (\text{initial accrual date})_{\text{base 2015}}$ is the Reference Inflation Index at the initial accrual date expressed in the 2015=100 as calculated at point 2.