

Retail Trade Index

Change of Base Year.

Council regulation (EC) No. 1165/98 dated 19th May 1998 on short-term statistics requires member states to alter the base year every 5 years, more specifically in years ending in 0 and 5. With the aim of complying with this community requirement, the base year of the Retail Trade Indices are changed and are calculated using the 2005 base as of January 2006.

The base year of an index indicates the period to which the comparisons of different situations carried out refer. Therefore, the closer the base year to the current period, the more logical the comparisons made.

The five years between two base year changes can result in variations in both the population structure, as well as a sector's economic structure. Base year changes are therefore used to adapt indices to the new reality, altering sample designs to fit with the new population and updating the weighting structures used to calculate the grouped indices in accordance with each sub sector's or product's new weighting.

The base year change implies a series break, which means that the indices created as of January 2006 are not comparable with previous ones. In order to prevent this break and allow temporal comparisons between indices, all series published up to December 2005 have been linked using a coefficient for each one.

Link coefficient

The link coefficient used is the structural link coefficient defined as the coefficient between the average of 2005 indices in base 2005 and the average of the indices of this same year in base 2001.

$$K = \frac{\bar{I}_{2005}^{Base\ 2005}}{\bar{I}_{2005}^{Base\ 2001}} = \frac{1200}{\sum_{m=1}^{12} I_{m,05}^{Base\ 2001}}$$

where:

$$\bar{I}_{2005}^{Base\ 2005} = \frac{\sum_{m=1}^{12} I_{m,05}^{Base\ 2005}}{12} : \text{Average of 2005 indices in base 2005, which is equal to 100 in construction.}$$

$$\bar{I}_{2005}^{Base\ 2001} = \frac{\sum_{m=1}^{12} I_{m,05}^{Base\ 2001}}{12} : \text{Average of 2005 indices in base 2001}$$

This link coefficient uses information from the whole base year and the average of the linked indices in the base year is 100.

Chain-linked series.

The chain-linked series are obtained by multiplying each of the indices in base 2001 by the corresponding link coefficient. This is a scale change in order to achieve data comparability and therefore, both the inter-monthly and inter-annual variation rates are maintained.

$$I_{m,t}^{(Linked) Base 2005} = I_{m,t}^{Base 2001} \times K$$

where:

$$I_{m,t}^{(Linked) Base 2005} : \text{ is the chain-linked series of index I for the month m of year t (t} \leq 2005\text{)}$$

The link coefficients are calculated independently for each series. In doing this the chain-linked series lose additivity, in other words, the grouped indices are no longer the weighted arithmetic total of their components. This may mean that during 2006, the variation rates of a grouped index remain outside the interval marked by its components.