

Services Sector Activity Indicators

Change of base year

Council Regulation (EC) no. 1165/98 dated 19 May 1998 on short-term statistics obliges member states to alter the base year every 5 years, more specifically in years ending in 0 and 5. In order to fulfil this request and taking advantage of the variation of the methodology given the dissemination of regional information, the indices for the Services Sector Activity Indicators alter their base year and will now be calculated taking the year 2005 as the base.

The base year for an index refers to the period for which comparisons are made for the different situations; therefore, the closer the base year as regards the current period, the more coherent the comparisons.

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 subsector's or product's new weighting.

The base year alteration implies a break in the historical series, which means that the indices created as of January 2006 are not comparable with previous ones. In order to save 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 operation uses the structural link coefficient which is defined as the quotient between the average of the 2005 indices in base 2005 and the average of the 2005 indices in base 2000:

$$e = \frac{\bar{I}_{2005}^{Base\ 2005}}{\bar{I}_{2005}^{Base\ 2000}} = \frac{1200}{\sum_{t=1}^{12} I_{t,05}^{Base\ 2000}}$$

where,

$$\bar{I}_{2005}^{Base\ 2005} = \frac{\sum_{t=1}^{12} I_{t,05}^{Base\ 2005}}{12}$$

is the average of 2005 indices in base 2005, which is

equal to 100 in construction.

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is the average of 2005 indices in base 2000.

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

Linked series

Linked series are obtained by multiplying each of the indices in base 2000 by the corresponding link coefficient. This is a scale change in order to achieve data comparability and therefore variation rates are maintained.

$$I_{t,a}^{(enlazada) Base 2005} = I_{t,a}^{Base 2000} * e$$

where $I_{t,a}^{(enlazada) Base 2005}$ is the linked series of the index for period (month) t of year a ($\forall a \leq 2005$).

Link coefficients are calculated independently for each series; therefore, linked series lose additivity. In other words, grouped indices are no longer the weighted sum of their components. This may mean that during 2006, the variation rates of a grouped index remain outside the interval marked by its components.