Change base year in national accounts series

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Change base year (1)

First of all, to the choice of base year, we can introduce the follow principles:

A - Volume measures available at the elementary level of aggregation shall be aggregated using the Laspeyres formula to obtain the volume measures of all national accounts aggregates. Price measures available at the elementary level of aggregation shall be aggregated using the Paasche formula to obtain the price measures of all national accounts aggregates.

B - Volume measures derived at the elementary level of aggregation shall be aggregated using weights derived from the previous year.

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Change base year (2)

Laspeyres formula to obtain the volume measures

$$L_q = \frac{\sum_i p_{i0}\, q_{it}}{\sum_i p_{i0}\, q_{i0}} \times 100$$

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Change base year (3)

$$L_q = \sum_i v_{i0} \frac{q_{it}}{q_{i0}} \times 100$$

where:

$$v_{i0} = \frac{p_{i0}\, q_{i0}}{\sum_i p_{i0}\, q_{i0}}$$

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Change base year (4)

The main issue to change base year is to define the weigth:

$$v_{i0} = \frac{p_{i0}\ q_{i0}}{\sum_i p_{i0}\ q_{i0}}$$

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Change base year (5)

In general, when we change base year, we introduce new Index that reflect the new weight.

If detail aggregation no change when we have a new base year, the more important think is to calculate new volume change (It means we have new Laspeyers index).

If base year is always the previous year, we have the system of "chain indices". However, for the calculation of the year-to- year price and volume changes, no chainging is required.

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Let,'s see the example on excel file

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The end

➢ **Thank you for your kind attention**

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