

Methodological sheet

Agricultural producer prices

I. Definition and content

Agricultural producer price index is calculated from nominal prices of selected agricultural products. The prices involved are the realization prices of selected products falling within sections 01 and 05 of the Standard Classification of Production (Standardní klasifikace produkce – SKP), designed exclusively for the domestic market. The prices are adjusted for value-added tax.

II. Sources and methodology of ascertainment

Agricultural producer prices are ascertained by means of the state statistical statement Agricultural prices 1-12 for 95 crucial agricultural products (62 crop products, including fruit and vegetables, and 33 livestock products. In the case of most livestock products quality classes are determined for the given commodity. Except for these indexes additional 29 commodities are monitored.

The Czech Statistical Office ascertains the prices in approximately 500 selected producers in agriculture on a monthly basis.

III. Break-down

The indices published in the database are the following:

- a) Average of the year 2010 = 100 (basic calculated index)
- b) corresponding period of the previous year = 100
- c) previous month = 100
- d) ratio of two rolling averages of the type "c" index (the average of last 12 months' index numbers to the average for previous 12 months)

The agricultural producer price index is further broken down into crop products and livestock products.

IV. Method of calculation

Average monthly prices of the products under review are calculated as a non-weighted arithmetic average from the prices of the individual producers according to the territorial break-down. Monthly prices of the individual products are compared with their average whole-year price in 2010. The average whole-year price of a representative in 2010 is calculated as a weighted arithmetical average from their prices expressed as average monthly prices of the year 2010, the weights being the relative monthly shares of the physical volumes of the products in the whole-year production.

The index is calculated on the basis of the prices for the selected commodity items by aggregation of simple prices of the representatives into an aggregate by means of the Laspeyres calculation formula:

$$I = \frac{\sum \frac{p_1}{p_0} \cdot p_0 \cdot q_0}{\sum p_0 \cdot q_0} \cdot 100$$

p_1 - price in the period under review

p_0 - price in the basic period

$p_0 q_0$ - constant weight - in the basic period (the structure of revenues from agricultural production)

Monthly price indices of the individual products (representatives) are calculated as a quotient of their average price for the respective month and the average whole-year price of the year 2010.

Monthly indices aggregated up to the level “agricultural products - total” are calculated as weighted arithmetic averages of the respective products. The weights of agriculture seasonal and non-seasonal commodities differ for particular month of the year, therefore two dimension weighted scheme was used. The first dimension is used for vertical aggregation from the basic products up to highest level, the second dimension captures seasonality within 12 month of the year. The nominal sum of 1000 equals the sum of the constant weights of the highest aggregation “agricultural products - total”. Since January 2013 the changeable month weights are used for the calculation of the agriculture producer price index.

Price indices of agricultural producers are calculated since January 2013 on the new weighting schemes derived from average sales for the years 2009, 2010 and 2011. The indices are calculated on the base where average of 2010 = 100.

V. Change in methodology

Within the framework of the revision that was implemented in 2013, the selection of the representatives was revised.

V. Reporting entities

The reporting entities are selected producers in agriculture.