

## Methodical Notes

Industrial producer price indices cover the prices of products produced in the branches B to E of CZ-NACE. The publication contains price indices for divisions and groups of CZ-CPA, aggregated into subsections and sections of 'Classification of Products by Activity' (CZ-CPA 2008) and industry total. For some aggregations no indices are presented in order to protect the individual character of the data. Industry total means the sum of B, C, D and E sections. The classification of products in its current version, valid since 1<sup>st</sup> January 2008, is prepared on the basis of the European standard of CPA 2008 (Classification of Products by Activity).

During the year 2011 a complex standard revision of industrial producer price indices took place. On its base, the price indices are calculated on the new 2010 constant weights since January 2012. The weights of industrial producer price indices were determined on the structure of 2010 domestic sales from the questionnaires 'Prům 2-01' ('Industry 2-01'), 'P4-01' and 'Ceny Prům 1-12' (Industry Prices 1-12').

The basilar indices with the base December 2005 = 100 are replaced by the new technical price base December 2010 = 100. Indices calculated that way are chained from the 4-digit level of CZ-CPA to the existing price indices with the base 2005 average = 100 and December 2005 = 100 and thus continuation of the present time series is ensured.

**Excluded** were the groups with the lowest domestic sales in the year 2010:

B. 089	Mining and quarrying products n.e.c.
CA 102	Processed and preserved fish, crustaceans and molluscs
CG 234	Other porcelain and ceramic products
CI 267	Optical instruments and photographic equipment
CL 309	Transport equipment n.e.c.
CM 321	Jewellery, bijouterie and related articles
CM 322	Musical instruments

On the other hand, newly are **included**:

B. 062	Natural gas, liquefied or in gaseous state
CC 182	Reproduction services of recorded media

The price indices calculations are based on the prices of selective files of representatives and selected reporting units by aggregating simple price indices into an aggregate using a modified Laspeyres formula. The calculation uses constant weights.

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

where:

- $p_1$  the reference period price,
- $p_0$  the basic period price (December 2005),
- $p_0 q_0$  the constant weight – value indicator, in terms of per mill (2005 domestic sales).

Industrial producer price index is calculated monthly using the prices reported by the national statistical questionnaire 'Ceny Prům 1-12' ('Industry Prices 1-12'). The questionnaire is filled out by selected organizations (about 1200) for selected representatives (about 4700). The prices reported are domestic prices agreed between supplier and customer for domestic market products (excluding VAT, excise tax and transport and incidental costs). The period for price observation was extended and the prices between the first and eighteenth calendar day of the reference month are included (formerly the tenth to twelfth calendar day).

The new industrial producer price indices are calculated and published to following bases:

- 2005 average = 100 (base index),
- December 2005 = 100 (derived base index),
- previous period = 100, corresponding period of the preceding year = 100,
- the ratio of rolling averages index (ratio of average of last 12 months' indices to average of previous 12 months' indices, calculated from the base indices 2005 averages = 100).

Industrial producer price indices by Main Industrial Groupings (MIGs) are published since January 2003. Their content was defined by the Commission Regulation (EC) No 586/2001 of 26 March 2001 on implementing the Council Regulation (EC) No 1165/98 concerning short-term statistics. In June 2007 by the

Commission Regulation (EC) No 656/2007 got to the change of the content of the individual industrial groupings. The first calculation in accord with the new regulation was made in January 2009. The recalculation of time series was made to the year 2000 with.

### **Average prices of natural gas, electricity and oil products**

Since the year 2002 are published **average prices of natural gas and electricity**. These prices are also provided to Statistical office of European Communities (Eurostat).

To the end of the year 2007 were published average prices for the individual standard consumers. Prices were valid on 1<sup>st</sup> January and 1<sup>st</sup> July of the observed year. Standard consumers are defined in the council directive 90/377EEC of 29 June 1990 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users. Since the year 2005 the publication of these prices was enlarged, always on 1<sup>st</sup> day of calendar quarter.

On 1<sup>st</sup> January 2008 the council directive 90/377/EEC was amended by the directive 2008/92/EC of the European Parliament and of the Council of 22 October 2008 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users. The standard consumers were replaced by the standard consumption bands and average prices on 1<sup>st</sup> day of current quarter were replaced by the average prices for the previous quarter, or half-year.

Prices according to the former methodology were surveyed on 1<sup>st</sup> October 2007 for the last time and published in the publication for November 2007. Prices according to the new methodology were calculated for Q3 and Q4 2007 for the first time and published in the publication for January 2008. Both types of calculation are overlapping for Q3 and Q4 2007. Prices for Q2 2007 according to the former methodology do not follow up with prices for Q3 2007 according to the new methodology.

**Prices of natural gas** are surveyed by the national statistical questionnaire 'Ceny E 6-04' ('Prices E 6-04'). Average prices of natural gas for consumption bands total are calculated as a weighted arithmetic average of prices recorded by the most important traders with natural gas and the weights are market shares in the individual bands. Reported prices are prices agreed between trader and his final domestic consumer.

**Prices of electricity** are surveyed by the national statistical questionnaire 'Ceny Elek 1-12' ('Prices Elec 1-12'). The most important traders report prices charged to the selected final domestic consumers in this questionnaire. Final consumers are selected from the all voltage networks. Prices of energy and prices of electricity total (including: energy, transmission, system and distribution) are reported.

Average prices of electricity for individual consumption bands are calculated as weighted arithmetic average from the prices of individual final consumers covering whole required spectrum of consumption.

**Quarterly average prices of electricity and natural gas for industry total** are also published. For the Czech Republic, as a member state of OECD, these prices are provided to International Energy Agency (IEA). Average quarterly prices are calculated as a weighted arithmetic average from average prices of individual consumption bands and their share on the yearly consumption.

Since January 2003 the delivered **prices of oil products** to households and industry have been released monthly. The methods of average price surveys are based on the Council Decision 1999/280/EC regarding a Community procedure for information and consultation on crude oil supply costs and the consumer prices of petroleum products and on the Commission Decision 1999/566/EC.

The **prices of oil products** are collected monthly by the national statistical survey 'Ceny E 3 -12' ('Prices E 3-12'). The recorded prices are the most frequently charged delivered prices excluding transport costs, inclusive of VAT and excise tax and net of VAT and excise tax, agreed between supplier and customer inland at the 15th calendar day of the month. The „supplier“ means producer or distributor of domestically produced or imported oil products. The „customer“ means end user, characterized by the size of an offtake. In high sulphur fuel oil it means the deliveries of less than 2000 tonnes per month or less than 24000 tonnes per year for industry. In heating gas oils it means the individual deliveries of 2000 to 5000 litres for households and less than 2000 litres for industry.

**Information on the revision of the industrial producer price index**

Currently we are preparing a revision of the calculation of industrial producer price index, which is a change from the original weighting structure for 2010 (domestic sales) on the new weighting structure of the year 2015 (domestic sales). There will be a slight variation of weights on the level of some aggregation of CZ-CPA on the three-digit and four-digit levels and a number of changes in the selection of reporting units and representatives. However, there was no fundamental change in the methodology for calculating indices.

Since January 2017 indices will be calculated with new weights 2015. Basic indices with the price base December 2010 = 100 will be replaced with new price base December 2015 = 100. Thus calculated indices will be from the four-digit level of CZ-CPA (and up) of the weighting scheme chained to the indices with the index base 2015 average = 100 and 2005 average = 100. This will ensure the continuation of the existing time series. Time series with the index base December 2005 = 100 will be ended by December 2016. Derived indices (month on month, year on year, ratio of rolling averages) will be calculated from the basic series 2015 average = 100.

From the observation and publishing will be excluded these 3-digit aggregations:

CB 131 – Textile yarn and thread

CC 182 – Reproduction services of recorded media

Publication of price indices for January 2017 will be postponed in accordance with 'Catalogue of Products 2017' by one week to February 22, 2017.