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 2015) 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 1st January 2015, is prepared on the basis of the European standard of CPA 2015 (Classification of Products by Activity).

During the year 2022 a complex standard revision of industrial producer price indices took place. On its base, the price indices are calculated on the new 2021 constant weights since January 2023. The weights of industrial producer price indices were determined on the structure of 2021 domestic sales from the questionnaires 'Prům 2-01' ('Industry 2-01'), 'Ceny Prům 1-12' (Industry Prices 1-12') and the administrative data of the questionnaire P4-01.

The price indices with the base December 2015 = 100 were replaced by the new technical price base indices December 2021 = 100. Indices calculated that way are chained from the 4-digit level of CZ-CPA to the base indices 2015 average = 100. This will ensure the continuation of the existing time series.

From the time series with the base 2015 average = 100 was calculated time series with the base 2021 average = 100, by dividing the indices of the time series 2015 average = 100 by the index of the year 2021 average. Time series with the index base 2005 average =100 and 2010 average = 100 will be ended by December 2022.

Derived indices (month on month, year on year, ratio of rolling averages) are still calculated from the basic series 2015 average = 100.

These 3-digit aggregations were **excluded** from the observation and publication:
CA120 - Tobacco products (also 2-digit aggregation CA12)
CC151 - Tanned and dressed leather; luggage, handbags, saddlery and harness
CH253 - Steam generators, except central heating hot water boilers

And also, all subsections from CA to CM will be excluded, because they are not a part of classification already.

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.

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

where:
p_1 the reference period price,
p_0 the basic period price (December 2015),
$p_0 q_0$ the constant weight – value indicator, in terms of per mill (2015 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 5000). 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.

The new industrial producer price indices are calculated and published to following bases:
- 2015 average = 100 (base index),
- 2021 average = 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 2015 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 and electricity

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 1st January and 1st 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 1st day of calendar quarter.

On 1st 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 1st day of current quarter were replaced by the average prices for the previous quarter, or half-year.

Directive 2008/92/EC was repealed with effect from 1 March 2017 and was replaced by Regulation (EU) 2016/1952 of the European parliament an of the Council of 26 October 2016 on European statistics on natural gas and electricity prices and repealing Directive 2008/92/EC.

There is no change in methodology (monitoring, calculation) with the introduction of new regulation, the monitoring of electricity and natural gas prices was extended to standard customer bands for households.

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 Czechia, 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.

The method of calculating prices for consumers from low voltage (electricity) and small consumers (natural gas) introduced since 2024.
In 2023, an extraordinary price investigation took place. The calculation is carried out by the CZSO
The 7 main gas and electricity retailers.
Collected data on sales (CZK) and sales in physical units (MWh). Division of the collected data into standardized sampling bands determined by Eurostat (the documents are supplied by the respondents).
The resulting unit price for the given band is the share of sales (CZK) and physical units (MWh).
There is a separate calculation of the total price and the price for only the power part (commodity).
Determining the prices actually paid (average for a given consumption band).

Since 2024, it was included among the standard statistical surveys, it is be part of the report on electricity prices (Ceny Elek 1-12) and on natural gas prices (Ceny E6-04).
The data in the new methodology describe realized energy prices for consumers from low voltage. The data in the original methodology describe the offered energy prices for consumers from low voltage.

Average prices for the selected food products

Average prices for the selected food products are newly published since January 2017. Till December 2016, they were included in the publication ‘Indices of agricultural producers, industrial producers and consumer price indices of food products', publication code: 011034-16.
This is the result of the monthly processing of industrial producer price index and the statement ‘Ceny prům 1-12’ (‘Industry prices 1-12’). Published prices are calculated as a weighted arithmetic average and are net of VAT and other taxes and for all forms of delivery. The update of weighting scheme is implemented on the basis of domestic sales every January.