

## EXPLANATORY NOTES ON METHODOLOGY

The export and import price index has been calculated for the Czech Republic since 1993. The prices were measured by means of the national quarterly statistical questionnaire Cený ZO 1-04 until the end 1997, monthly report Cený ZO 1-12 has been used since 1998.

During the year 2006, the regular revision of price indices was accomplished which resulted in **revised external trade price indices calculated on external trade structure of 2005** (former indices were based on import and export structure in 1999) **with the index reference period the 2005 average** (previously the 1999 average and derived 2000 average). Price indices for period January 2005 - December 2006 were recalculated. The original indices for these years lost their validity.

The index is compiled according to the Harmonized System and is converted to suit the breakdown by SITC (Standard International Trade Classification), Rev.4 main group and, for the needs of national accounts and Eurostat, the breakdown of the Classification of Products by Activity (CZ-CPA). Abbreviation CZ in the term means national version of international standard. Classification CZ-CPA replaced classification of standard production SKP in 2009.

The indices are calculated using the modified Laspeyres formula.

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

- $p_1$  - the price (of representative) in the reference period
- $p_0$  - the price (of representative) in the base period – average price for the year 2005
- $p_0 q_0$  - constant weights (relative structure) – the value of implementation of external trade in 2005

Constant weights of index correspond to external trade structure in 2005, determined from customs statistics for 4-digit groups of the Harmonized System. The weights of individual representatives were then determined according to sold volumes of particular representatives or whole groups of representatives, given by sampled reporting units in their reports.

Since 2005, the basic price period for the calculation of the indices has included average prices of the individual representatives in 2005; the indices are also derived on the following bases: corresponding period of previous year = 100 and previous period = 100. Shown is also the ratio of moving averages, which the sum of basic indices for the last 12 months related to the sum of indices for previous 12 months.

The price representatives were chosen by businesses important for the external trade of the Czech Republic (by both production enterprises and enterprises engaged in foreign trade only) - about 520 of them engaged in exports and about 480 in imports. At present, the weight pattern includes approximately 1750 exported and 1650 imported products, raw materials and supplies - price representatives, which take up a significant share in the value of rather significant groups traded in the framework of external trade (both exports and imports). Compared to condition before the revision, about 25% more respondents were addressed and the number of the representatives is also higher (by about 25%).

Price trends are measured on individual price representatives chosen in the framework of the 8-digit code of the Combined Nomenclature, characterized by certain technical and qualitative parameters, mark, unit of measure and possibly stable foreign market. The sample of representatives represents all significant 2-digit-code groups of the Harmonized System and the 2-digit-code groups then include all 4-digit-code groups of Harmonized System, if possible. The groups, which mostly embrace non-standard products, and industrial plants, for which price indices cannot be calculated due to the non-repeatability of their imports or exports, are therefore represented only by repeatedly

exported or imported product, on which price trends can be measured. However, only selected chapters of Harmonized System are released.

Reporting units state average prices in terms of weighted arithmetic mean (weighted by the amount of products in physical units) derived from prices achieved in rather significant trade transactions either in different countries or in a stable foreign market, provided it is included in the characteristic of the price representative concerned, for the entire reference month. Prices invoiced by external supplier are measured for imports and FOB prices for exports.

The basis of implementation prices are invoiced prices of significant import and export trade transactions - they are converted into CZK by average monthly exchange rates declared by the Czech National Bank. This is carried out either by a reporting unit or the Czech Statistical Office if prices are reported in a foreign currency. The price indices reflect thus changes in foreign exchange rates, too. The stated prices are free of duty, value added tax and consumer tax.

Recalculated time series of indices with the base '2005 average = 100', also for the period before 2005, could be found on the web site of the Czech Statistical Office [http://czso.cz/eng/redakce.nsf/i/izc\\_ts](http://czso.cz/eng/redakce.nsf/i/izc_ts) referring to "Export and Import Price Indices".