

IMPORT PRICE INDEX: QUALITY DESCRIPTION

Name, definition, periodicity of the indicator

Import price index (IPI) is a relative indicator measuring the overall change in prices for goods and services purchased by the residents of the country from abroad over a certain period of time.

The IPI is calculated and published on a monthly basis.

The IPI is produced by the Price Statistics Division of Statistics Lithuania.

Statistical data sources

The main statistical data source for the compilation of the IPI is the data on Lithuanian enterprises importing goods, as well as information on the purchase prices of representative commodities. An additional statistical data source – foreign trade statistics (Extrastat and Intrastat), which serves as a basis for obtaining statistical information on the value and amount of every commodity. The value to amount ratio shows the unit value of a commodity in a certain period. This statistical information is used for the calculation of price indices for homogenous, technically unsophisticated goods.

The source of statistical information for the preparation of a weighting structure is foreign trade statistics on the volume of imports for the previous year in value terms. Enterprises selected for a statistical survey on import prices submit information on representative commodities to Statistics Lithuania via an annual statistical questionnaire for the selection of representative imported commodities KA-24 (hereinafter referred to as “questionnaire KA-24”), on purchase prices – to Data Preparation Division of Statistics Lithuania via a monthly statistical questionnaire (report) on prices of imported commodities KA-25 (hereinafter referred to as “report KA-25”).

Time spent by respondents on the filling in of questionnaire KA-24 makes, on average, 3 hours, report KA-25 – about 1 hour.

Methods used

Calculation methods

In calculating the IPI, the Laspeyres formula is applied. The IPI is calculated from the lowest level, i.e. representative commodities, to the highest level, i.e. the all-items IPI.

The lowest level price index is calculated as a ratio of the price in the reporting month to the price in the base period. The lowest level price indices are then aggregated into higher level price indices according to the Laspeyres formula, using the base weights generated starting with the highest level of the Classification of Products by Activity (CPA 2008) and ending with the lowest level, i.e. representative commodities. Each higher level price index is calculated as a weighted arithmetic mean of lower level price indices. Representative commodity price indices are grouped into the price indices of 668 CPA 2008 subcategories (6-digit level), 357 categories (5-digit level), 201 classes (4-digit level), 92 groups (3-digit level), 31 divisions (2-digit level), 6 sections (1-character level), and as well as five Main Industrial Groupings (Energy products, Intermediate goods, Capital goods, Durable consumer goods and Non-durable consumer goods) and all-items IPI.

The IPI for January–March of the reporting year is calculated using provisional foreign trade statistics for the previous year as weights. In June, as revised foreign trade statistics have been

received, weights are revised and used for the calculation of IPIs for April–December. IPIs for January–March are also recalculated.

Estimation of missing prices

Each month, on average, about 26 per cent of prices are not collected for various reasons (seasonality, import malfunctions, termination of enterprise activity, etc.).

For seasonal goods (clothes, footwear, fruit, vegetables, etc.), for the months when they are not imported, the last registered price is repeated. Price indices are not seasonally adjusted.

For the estimation of prices of goods which were not reported for other reasons, the following methods are used:

- the price in the previous month may be repeated;
- the missing price may be estimated using the IPI calculated based on the prices of other goods within the same category.

Quality adjustment methods

In case the selected representative commodity is no longer imported, another commodity is selected instead, which is similar to the former commodity in its qualitative, technical and other characteristics. In such case, an enterprise has to provide information on the characteristics, changes in quality, etc. of the newly selected representative commodity. Where the quality of the newly selected representative commodity is just slightly different from that of the old one, the price of the newly selected representative commodity in the reporting month is compared to that of the old one directly. Where the quality of the newly selected representative commodity is considerably different from that of the old one, the impact of the change in quality on the price rise or drop is estimated. In order to maintain comparability between the price of the new and the old commodity, the quality of the commodities must be harmonised. The quality of the commodities is harmonised by correcting the price of the old commodity in the base period through eliminating the influence of quality change. The following quality adjustment and price correction methods may be used:

- *overlap method*. According to this method, the prices of both the old and the new commodity are collected in the same month, which is considered to be the linking month for the price ratios series of the old commodity backwards and the price ratios series of the new commodity forward. It is considered that the price change before the linking month is reflected by the change in the price of the old commodity, while after the linking month – by the change in the price of the new commodity. The difference between the prices of the old and the new commodity in the linking month is treated as a price change due to the change in quality and does not influence the time series;
- *expert estimation method*. In this case, the influence of quality change on the price is estimated by the experts of enterprises. The employee of an enterprise who is responsible for the provision of statistical data enters the value reflecting the impact of the change in quality on the price in per cent in report KA-25. Upon the receipt of such statistical data, the specialists of the Price Statistics Division of Statistics Lithuania correct the price of the commodity in the base period by eliminating the impact of the change in quality.

Minor changes in quality are disregarded.

Compliance with EU legislation

The IPI complies with the requirements set in Council Regulation (EC) No 1165/98 of 19 May 1998 concerning short-term statistics, as last amended by Regulation (EC) No 596/2009 of the European

Parliament and of the Council of 18 June 2009 (hereinafter referred to as “Regulation (EC) No 1165/98”).

Purpose and users

The IPI is used for the calculation of various indicators at constant prices, analysis of economic development, forecasting.

Users – national public authorities and agencies, the Bank of Lithuania, the media, representatives of business and science.

Comparability

Length and characteristics of IPI time series

Monthly calculation of the IPI was launched in 2006. From 1996 to 2006, import unit value indices were calculated on a quarterly basis.

The time series of all-items import unit value indices are directly linked to the time series of price indices by means of a chain-linking method. The linking period is the previous year. Because from 2006 imported goods have been classified and price indices have been calculated and published based on the CPA instead of the Combined Nomenclature (CN), the time series of unit value and price indices of a more detailed (division, section, etc.) level cannot be linked. Therefore, the publication of unit value indices has been discontinued.

From 2009, Statistics Lithuania has been calculating and publishing the IPI based on a new revision of the CPA (CPA 2008). At the moment, IPI time series are comparable from 2005, since they have been recalculated based on the CPA 2008.

Coherence

The IPI has been harmonised with the IPIs compiled by other countries in compliance with the requirements of Regulation (EC) No 1165/98.

No other institutions of Lithuania produce such an indicator.

Accessibility

The IPI is published in a separate press release, at 11 a.m. on the 56th day after the end of the reporting month on the website and in the Database of Indicators of Statistics Lithuania; in a monthly publication *Economic and Social Development in Lithuania*; in the Statistical Yearbook of Lithuania. Rates of change in prices during a month, during the period from the beginning of the year, during twelve months, time series of price indices and weights used for the calculation of price indices by economic activity and Main Industrial Groupings are published.

Timeliness and punctuality

Enterprises report average monthly prices of representative commodities, calculated as a weighted arithmetic mean, by the 10th calendar day of the end of the reporting month.

Statistical information is published in accordance with schedules approved by the Director General of Statistics Lithuania.

Accuracy

IPI time series based on the 2010 index base period are calculated accurate to all decimal places. The IPIs obtained are rounded to four decimal places, and such IPIs are published in the Database of Indicators of Statistics Lithuania. Monthly, annual, average annual and other periods' price changes are calculated using IPI time series accurate to all decimal places and published rounded to one decimal place.

Quality of the statistical indicator

Reporting period	Punctuality (date of publication)	Non-response rate, number of reports, %	Prices collected from enterprises	of which		Prices not submitted for various reasons, %	of which		Number of prices of new representative commodities, which had replaced the old ones, provided by enterprises, %
				changed, against the previous period, %	estimated due to commodities quality change, %		repeated due to seasonality, %	estimated, %	
January	28 March	–	3582	43.3	5.1	4.9	–	4.9	2.5
February	25 April	–	3582	51.5	5.6	26.6	20.4	6.2	1.9
March	24 May	–	3582	52.1	5.7	25.6	19.3	6.3	1.7
April	25 June	–	3582	52.4	5.9	26.0	20.0	6.0	1.6
May	26 July	–	3582	50.3	6.1	27.1	21.2	5.9	1.3
June	26 August	–	3582	48.9	6.0	29.3	22.6	6.7	1.4
July	25 September	–	3582	50.4	5.2	28.6	22.2	6.4	1.5
August	25 October	–	3582	48.7	4.9	30.2	23.9	6.3	1.4
September	25 November	–	3582	49.1	5.4	29.5	23.3	6.2	1.3
October	27 December	–	3582	50.4	5.1	28.5	22.5	6.0	1.4
November	24 January 2014	–	3582	47.4	5.5	31.3	24.7	6.6	1.6
December	25 February 2014	–	3582	47.5	6.1	33.2	25.5	7.7	1.3

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