



# Industrial Producer Price Index

Reference metadata based on the Euro SDMX Metadata Structure (ESMS)

Republika Srpska Institute of Statistics

- [1. Contact](#)
- [2. Metadata update](#)
- [3. Statistical presentation](#)
- [4. Unit of measure](#)
- [5. Reference period](#)
- [6. Institutional mandate](#)
- [7. Confidentiality](#)
- [8. Release policy](#)
- [9. Frequency of dissemination](#)
- [10. Accessibility and clarity](#)
- [11. Quality management](#)
- [12. Relevance](#)
- [13. Accuracy and reliability](#)
- [14. Timeliness and punctuality](#)
- [15. Coherence and comparability](#)
- [16. Cost and burden](#)
- [17. Data revision](#)
- [18. Statistical processing](#)
- [19. Comment](#)

## 1. Contact

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## 2. Metadata update

2.1.	Metadata last certified	22.6.2018.
2.2.	Metadata last posted	22.6.2018.
2.3.	Metadata last update	22.6.2018.

### 3. Statistical presentation

#### 3.1. Data description

The industrial producer price index is a short-term statistical indicator that measures the change in monthly levels of prices of industrial products manufactured in Republika Srpska and sold on the domestic and the non-domestic markets.

Main purpose of the survey is to monitor levels and dynamics of prices of industrial products. The index is also used as a deflator of time series for national accounts and industry and in indexing purchase and sale contracts.

Industrial producer price index consists of two components:

- a) industrial producer price index on the domestic market – measuring changes in prices of industrial products sold on the domestic market,
- b) industrial producer price index on the non-domestic markets – measuring changes in prices on the non-domestic markets.

Industrial producer price index is calculated regularly, once a month.

Key statistics:

- monthly index shows price changes in the current month compared to the previous month,
- annual index shows price changes in the current month compared to the same month of the previous year,
- average annual index shows price changes from the beginning of the year to the current month compared to the same period of the previous year,
- chain index shows price changes in the current month compared to December of the previous year,
- base index shows price changes in the current month compared to the average recorded in the base (reference) year (2015=100).

#### 3.2. Classification system

For the calculation of industrial producer price index in 2017, the Nomenclature of Industrial Products – NIP BiH/PRODCOM 2015 is used. This Nomenclature is based on the NIP BiH 2010 and updated in accordance with the changes to the EU PRODCOM list.

#### 3.3. Sector coverage

The source for selection of industrial producers is the Annual survey on industrial production IND-21. Reporting units are selected producers of industrial products with headquarters on the territory of Republika Srpska that produce selected industrial products defined by the Nomenclature of Industrial Products – NIP BiH/PRODCOM 2015, in the sections of economic activity B – Mining and quarrying, C – Manufacturing, D – Electricity, gas, steam and air-conditioning supply, and E – Water supply; sewerage, waste management and remediation activities.

#### 3.4. Statistical concepts and definitions

**Aggregate indices:** indices calculated as weighted averages of elementary indices, referring to hierarchical positions starting from product level.

**Aggregation (of indices):** index synthesis, aggregation of producer price indices using the Laspeyres formula from the hierarchical level of products to the total level.

**Article (item)** is specified by an industrial enterprise/reporting unit that will select the most representative articles (items) for its product range for a particular industrial product code.

**Base price:** when developing the price ratio, the base price is in the denominator of the ratio between the current price and the base price; for industrial producer price indices, the base price is the price from December of the previous year.

**Base period:** the period from which data are used as the basis for calculating indices or other ratios, December of the previous year and  $\emptyset$  2015=100.

**Frequency of collection:** the frequency of collecting producer prices of industrial products is once a month. Basket of products: a list of selected industrial products for which prices are collected, which have been selected for the purpose of representativeness.

**Microdata:** elementary units defined as the ratio between two prices: current and base.

**Macrodata:** aggregate indices, from product indices to the total index.

**Chain index:** indices linked by an adopted common reference period for the so-called calculating indices, namely December of the previous year.

Names and codes of industrial products are taken over from the Nomenclature of Industrial Products – NIP BiH/PRODCOM 2015.

Nomenclature of Industrial Products – NIP BiH is a standard used for grouping and classification of industrial products primarily in industrial production statistics, in compiling short-term, annual and multi-annual statistical data and indicators.

**NACE Rev.2** Classification of Economic Activities of the EU, established by the Regulation EC No.1893/2006, applied since 1 January 2008.

**Weights** used for the calculation of industrial producer price indices represent a relative share of selected products in the total value of sales of industrial products on the domestic market and the non-domestic markets.

**Production:** an activity that results in a product. In the domain of industrial production, it represents a process that results in an industrial product defined by the Nomenclature of Industrial Products.

**Product** represents the output/result of an industrial activity, defined by the Nomenclature of Industrial Products. This term is used as a generic name for goods that have a physical dimension, but also for services.

**Enterprise:** survey unit (reporting unit). Enterprises submit results of monthly recording of product prices to the Republika Srpska Institute of Statistics.

**Industrial producer price on the domestic market** is the price at which the producer sells the products to regular customers on the domestic market in the largest quantities, loaded free into a wagon (truck) where the producer is located. This price includes producer subsidies, if accomplished by the seller, while commercial rebate and discounts approved by the seller to the buyer, VAT and excise are excluded.

**Industrial producer price on the non-domestic markets** is the price of goods delivered at the domestic border, including transport costs, insurance costs and all other costs incurred to the border (FOB price), at which the producer directly sells the products to regular customers on the non-domestic markets.

**PRODCOM** is the title adopted by the EY for industrial production statistics, that is, for activities classified in the sections B, C, D and E of the statistical classification of economic activities NACE Rev.2.

**Reference base indices:** indices calculated on the basis of 2015.

**Reference index period:** period with the index base =100.

**Index change rate:** measures an increase/decrease in index in the interval between two periods (change rates month-on-month, month to the same month of the previous year, etc.).

**Questionnaire:** the form completed monthly by the reporting units.

### 3.5. Statistical unit

Observation units are prices of selected industrial products. Products with the highest value of sales by division of industrial production are selected.

### 3.6. Statistical population

Active enterprises from the register of business entities whose registered principal activity is industry, with value of sold products exceeding 100,000 or with more than 5 employees, that are, in accordance with the Classification of Economic Activities based on NACE Rev.2 classification, classified into the sections B – Mining and quarrying, C - Manufacturing, D - Electricity, gas, steam and air-conditioning supply, and E - Water supply; sewerage, waste management and remediation activities.

### 3.7. Reference area

Republika Srpska

### 3.8. Time coverage

2007-2017 for the domestic market and 2013-2017 for the non-domestic markets

### 3.9. Base period

Ø 2015=100

#### 4. Unit of measure

Indices

#### 5. Reference period

Month

#### 6. Institutional mandate

##### 6.1. Legal acts and other agreements

Statistical survey Industrial Producer Price Index in Republika Srpska for 2017 is carried out based on the Statistical Programme of Republika Srpska for the period 2013-2017 (Decision of the Republika Srpska National Assembly No. 01-1901/12 on the adoption of the Statistical Programme "Official Gazette of Republika Srpska", No.120/12) and in accordance with the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No.85/03).

##### 6.2. Data sharing

Production of the industrial producer price index is not subject to international agreements.

#### 7. Confidentiality

##### 7.1. Confidentiality - policy

The protection and confidentiality of data collected for the purpose of calculating the industrial producer price index are ensured in accordance with the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03), the Rules of protection of confidential data of the Republika Srpska Institute of Statistics and other applicable regulations in the field of data protection and confidentiality, including the Law on the Protection of Personal Data ("Official Gazette of BiH", No. 49/06).

##### 7.2 Confidentiality – data treatment

Confidentiality and statistical protection of data are ensured at all stages of the production of industrial producer price index. In this regard, statistical staff must act in accordance with the provisions of the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03) on data confidentiality and protection. One of the confidentiality measures is ensured through a written statement on the protection and safekeeping of statistical data, which is signed by all the Institute's employees. In addition, all written documents through which information is requested for statistical purposes also indicate articles of the legal provisions regulating this field. Data protection is also ensured by passwords required to access each personal computer at the Institute. Detailed measures of statistical data protection are described in the Rules of protection of confidential data of the Republika Srpska Institute of Statistics.

#### 8. Release policy

##### 8.1. Release calendar

Data on industrial producer price indices are published according to predefined deadlines, specified in the Release Calendar of the Institute. Monthly releases are published 22 days after the end of the month for the data from the previous month (final data). Deadlines for other publications that provide consumer price indices are also specified in the Release Calendar.

##### 8.2. Release calendar access

[http://www.rzs.rs.ba/publications/?left\\_mi=15&add=15](http://www.rzs.rs.ba/publications/?left_mi=15&add=15)

### 8.3. User access

Provisions of Article 17, paragraph 2 of the Law on Statistics of Republika Srpska ("Official Gazette of Republika Srpska", No. 85/03) stipulate that the aim of Republika Srpska statistics is to present the actual situation as objectively as possible, to disseminate data in a neutral and impartial manner, and to respect citizens' right to access public information. All users can access data and information at the same time and in the same way.

## 9. Frequency of dissemination

Monthly

## 10. Accessibility and clarity

### 10.1. Release

Industrial producer price indices are published in a monthly release which presents the most important results in a summary review: table of indices at the total level, by purpose of consumption (5), by main industrial sections (4) and industrial divisions (29 for the domestic market and 24 for the non-domestic markets), in accordance with the Nomenclature of Industrial Products NIP BiH PRODCOM 2015. Data provided in monthly statistical releases are available in pdf and xlsx format, at the Institute's website, under the section:

<http://www.rzs.rs.ba/front/category/19/148/?&add=None>

### 10.2. Publications

In addition to monthly releases, industrial producer price indices on domestic market are published in the following publications:

- Monthly Statistical Review, current indices in relation to different time periods, for the total index, by purpose of consumption (5), by main industrial sections (4) and industrial divisions (29), in accordance with the Nomenclature of Industrial Products NIP BiH PRODCOM 2015. The data are available at the Institute's website: [http://www.rzs.rs.ba/front/article/2551/?left\\_mi=None&add=None](http://www.rzs.rs.ba/front/article/2551/?left_mi=None&add=None)
- Prices, Statistical Bulletin, providing annual data, i.e. indices shown in tables referring to different time periods for the year being published, it is available at the Institute's website: <http://www.rzs.rs.ba/front/category/149/>
- Statistical Yearbook of Republika Srpska, providing multi-annual data for industrial producer price indices, available at the Institute's website: [http://www.rzs.rs.ba/front/category/8/?left\\_mi=287&add=287](http://www.rzs.rs.ba/front/category/8/?left_mi=287&add=287)
- This is Republika Srpska, providing basic data for the year for which the data are published, available at the Institute's website: [http://www.rzs.rs.ba/front/category/308/?left\\_mi=288&add=288](http://www.rzs.rs.ba/front/category/308/?left_mi=288&add=288)

### 10.3. Online database

Industrial producer price indices are also available in online databases of the Institute, within the prices section: <http://www3.rzs.rs.ba/rzs/faces/indicators.xhtml>

### 10.4. Microdata access

Individual data on producer prices of industrial products are protected, that is, they are subject to general legal frameworks of confidentiality and are used for statistical purposes only (Law on Statistics of Republika Srpska, "Official Gazette of Republika Srpska", No.85/03). When it comes to microdata, the conditions under which certain users can have access to microdata and methods of protecting confidential data (statistical protection of individual and aggregated data) are regulated in detail by the Rules of protection of confidential data of the Republika Srpska Institute of Statistics.

### 10.5. Other

The data are also disseminated by means of replies to written requests submitted by users, according to their specification.

## 10.6. Documentation on methodology

Methodological documents and the most important information about the survey are available in electronic form and in the form of a publication. The methodology is available at the Institute's website:  
<http://www.rzs.rs.ba/front/category/19/147/?&add=None>

## 10.7. Quality documentation

Quality Report is available at the website of the Republika Srpska Institute of Statistics.  
[http://www.rzs.rs.ba/front/category/340/371/?left\\_mi=306&add=328](http://www.rzs.rs.ba/front/category/340/371/?left_mi=306&add=328)

## 11. Quality management

### 11.1. Quality assurance

When it comes to quality assurance for statistical data and maintaining public confidence in the data, the Law on Statistics of Republika Srpska (Article 17, paragraph 1) prescribes the application of principles of impartiality, reliability, transparency, timeliness, professional independence and statistical confidentiality in organisation and production of statistics in Republika Srpska. The Republika Srpska Institute of Statistics follows the recommendations on organisation and quality management defined by the European Statistics Code of Practice (CoP).

### 11.2. Quality assessment

Final phase of the statistical activity is an overall assessment using information from all processes, from the design of survey instruments and data collection, to data publication and feedback from users. This information is used to produce a quality report, which contains descriptions of all processes of the statistical activities and lists advantages and disadvantages related to quality, as well as quality indicators.

## 12. Relevance

### 12.1. User needs

There are external and internal users of data on producer prices of industrial products. External users include ministries and other state administration bodies, business entities, independent researchers, etc. When it comes to internal users or users within the Institute, data on producer prices of industrial products are mainly used by the National Accounts Division, Industry Division and Agriculture Division.

User needs are assessed according to the number of requests pertaining to industrial producer prices. Users require data on trends of prices of industrial products for a particular industrial division for the purposes of market analyses, business decision making and writing of scientific papers.

### 12.2. User satisfaction

The satisfaction of users with statistical data is measured through the User Satisfaction Survey of the Republika Srpska Institute of Statistics. The first user satisfaction survey was conducted in 2014. The results of the latest User Satisfaction Survey from 2017 are available at the Institute's website, in the section Quality in statistics:  
[http://www2.rzs.rs.ba/static/uploads/dokumenti/kvalitet/Rezultati\\_Ankete\\_o\\_zadovoljstvu\\_korisnika\\_2017.pdf](http://www2.rzs.rs.ba/static/uploads/dokumenti/kvalitet/Rezultati_Ankete_o_zadovoljstvu_korisnika_2017.pdf)

### 12.3. Completeness

The data comply with EU regulations concerning short-term statistics (Council Regulation (EC) No. 1165/98. as regards definitions of variables, list of variables and frequency of data compilation (Commission Regulation (EC) No 1503/2006). EU Regulation concerning short-term statistics (Council Regulation (EC) No.1165/98) defines variables and their presentation in the form of indices in monthly dynamics, which is fully applied in statistics on industrial producer price index. Thus, the data completeness rate (R1) is 100%.

## 13. Accuracy and reliability

### 13.1. Overall accuracy

Data accuracy is checked by assessing original data, applying the prescribed methodology and controlling measurement errors.

### 13.2. Sampling error

The survey in the domain of industrial producer prices statistics is based on a sample, which means that the entire population is not used. The sample is not random. It is selected to fulfil specific goals. The main aim of the selection of industrial products is to ensure that products at the value of sale on the domestic and the non-domestic markets are covered in terms of covering the most important products. The main aim of the selection of producers is to select producers that achieve the highest realisation by industrial division. Selected enterprises from the division in which they perform their activity and collected prices should represent changes in prices of industrial products in the given division. The source for selection of products and producers is the Annual report on industry IND-21, which is submitted by enterprises that are classified into sections B, C, D and E of the Classification of Economic Activities, based on the NACE Rev. 2 classification.

### 13.3. Non-sampling error

Measures taken to reduce coverage errors include annual updating of the product basket based on data obtained through the Annual report on industry IND-21, as well as regular updating of addresses of reporting units throughout the year. Continuous improvements to methodological processes are aimed at reducing non-sampling errors. Sound selection of representative products and enterprises/reporting units, multiple contacts with the reporting unit, revisions of the questionnaires and instructions for completing the questionnaire to facilitate their completion, combining several different methods of data collection (mail, fax, email) are performed to minimise errors. Possible errors during data collection and entry are corrected before the calculation of industrial producer price indices, in order to prevent subsequent revisions of calculated indices.

## 14. Timeliness and punctuality

### 14.1. Timeliness

The data are published 22 days after the end of the reference month. In 2017, timeliness of the first publication of results, defined as the difference between the date of the first publication and the end of the reference month, amounts to 22.4 average days after the end of the reference month. The first results are also final.

### 14.2. Punctuality

The rate of punctuality of data publication is 100%.

## 15. Coherence and comparability

### 15.1. Comparability - geographical

Results of the survey on producer prices of industrial products comply with the conditions of the domestic economy and are comparable with the members of the European Statistical System. The survey complies with EU Regulations concerning short-term statistics (Council Regulation (EC) No.1165/98) as regards definitions of variables, list of variables and frequency of data compilation (Commission Regulation (EC) No 1503/2006). EU Regulation concerning short-term statistics (Council Regulation (EC) No.1165/98) defines variables and their presentation in the form of indices in monthly dynamics, which is fully applied in statistics on industrial producer price index.

### 15.2. Comparability – over time

Data on changes of industrial producer prices in Republika Srpska have been collected since December 2006. The first results were published in early 2008 for the domestic market. For the non-domestic markets, the data have been collected since December 2011, with the publication in early 2013. Ever since, these have been published monthly for the domestic and the non-domestic markets.

### 15.3. Coherence – cross domain

Other statistical results are not used. Therefore, it is not possible to determine the degree of coherence between the survey and results obtained through other sources or other statistical domains.

### 15.4. Coherence - internal

They are fully coherent and mutually consistent. Aggregate indices/indices at higher level of aggregation are calculated using elementary indices.



## 16. Cost and burden

Costs related to the survey and burden on respondents are described in the Quality Report for the statistical survey Industrial producer price index, 2017.

## 17. Data revision

### 17.1. Data revision – policy

There is no general data revision policy. Users are informed about data revisions by means of brief information, published in statistical releases and other publications.

### 17.2. Data revision - practice

Industrial producer price indices have not been subject to revision.

## 18. Statistical processing

### 18.1. Source data

The data necessary to calculate industrial producer price indices are collected on the basis of a targeted sample. In 2017, it served to collect 1,330 prices on the domestic market and 624 prices on the non-domestic markets, based on the pre-defined sample of 386 products and 358 selected enterprises for the domestic market, and 157 products and 201 selected enterprises for the non-domestic markets, with the aim of representing price trends for industrial products in the division in which the selected enterprises perform their activity.

In addition, a necessary source of data required for the index compilation is the Annual report on industry IND-21, which provides the value and structure of sale of industrial products on the domestic and the non-domestic markets.

### 18.2. Frequency of data collection

Prices of industrial products on the domestic and the non-domestic markets are collected monthly.

### 18.3. Data collection

The data are collected using the reporting method. Prices are collected through the questionnaires C-41 and C-41 nd, which are sent to the reporting units by the Institute at the beginning of the year, in 36 copies (three copies for each of the 12 months). Reporting units are supposed to fill out three questionnaires, keeping one copy for themselves and sending two to the relevant regional office. The regional office forwards one copy to the Republika Srpska Institute of Statistics.

Questionnaires C-41 and C-41 nd are adapted to each individual enterprise, taking into account their specific assortment of products. The questionnaire includes prices for the current month, prices for the previous month, and information whether the sale was performed in the current month. Each month, prices are recorded for a defined article (item), with defined physical characteristics, quality, units of measure, packaging, etc. If the production of an article (item) being monitored is interrupted, the enterprise chooses a replacement article (item) that is most similar to the article (item) from the previous period in terms of physical characteristics and quality, provided that its production is planned in the future.

### 18.4. Data validation

Validation of data/prices of articles (items) is carried out during and after the entry of prices within the application. For all prices that vary +/- 10% a reason for the price change has to be entered. Once the entry is completed, confirmation (validation) of these prices is required. During data validation, it is necessary to (especially for significant changes in prices):

- Compare entered data with data provided in the questionnaire, to detect entry errors,
- Check whether the explanation provided by the reporting unit adequately describes the change in price,
- Check with the reporting unit whether the price is an outlier error or not,
- Compare the price of the item with a similar item by another producer,



- Check the completeness of the entry, that is, whether there is a price that equals 0. If there is no justifiable explanation for differences in prices, the reporting unit fills out the questionnaire again and submits it to the Institute by e-mail, or the price is corrected on the basis of a telephone agreement.

#### 18.5. Data compilation

Industrial producer price index is calculated from elementary indices at product level (EPI), which represent the ratio between the price in the current period and the base price (December of the previous year). A simple geometric mean is used as a measure of the mean value.

Elementary indices at product level are used to calculate aggregate indices, i.e. indices of classes, divisions, sections and the total index, using the Laspeyres formula for weighted arithmetic mean. The reference year for the calculation of indices is 2015.

Weights used for the calculation of producer price indices represent a relative share of selected products in the total value of sales of industrial products on the domestic market and the non-domestic markets. The main source of data for weights in 2017 is the Annual report on industry IND-21 from 2015. The structure of weights changes every five years, while each year weights are corrected based on the price increase occurring in the previous year.

#### 18.6. Adjustment

In the survey on producer prices of industrial products, adjustment methods refer to extreme prices (outliers) and replacements of articles (items) with the most similar article in terms of characteristics and quality.

#### 19. Comment

ESMS Item No	Concepts	English
3	<b>Statistical presentation</b>	
3.7	Reference area	
3.8	Time coverage	
3.9	Base period	
4	<b>Unit of measure</b>	
5	<b>Reference period</b>	
6	<b>Institutional mandate</b>	
7	<b>Confidentiality</b>	
8.2	Release calendar access	
10.2	Publications	
10.3	On-line database	
10.4	Micro-data access	
10.5	Other	

10.6	Documentation on methodology	
10.7	Quality documentation	
11	<b>Quality management</b>	
11.1	Quality assurance	
11.2	Quality assessment	
12	<b>Relevance</b>	
12.3	Completeness	
13.3	Non-sampling error	
14	<b>Timeliness and punctuality</b>	

14.1	Timeliness	
14.2	Punctuality	
15	<b>Coherence and comparability</b>	
15.1	Comparability - geographical	
15.2	Comparability - over time	
15.3	Coherence - cross domain	
15.4	Coherence - internal	
16	<b>Cost and burden</b>	
17	<b>Data revision</b>	
17.1	Data revision - policy	
17.2	Data revision - practice	
18	<b>Statistical processing</b>	
18.1	Source data	

18.2	Frequency of data collection	
18.3	Data collection	
18.4	Data validation	

18.5	Data compilation	
18.6	Adjustment	
19	<b>Comment</b>	