

# Industrial Production Price Index for (IPPI)

Metadata

National Bureau of Statistics of the Republic of Moldova (NBS)

## 1. Contact Information

### 1.1. Responsible subdivision within NBS

Industry, Energy, and Constructions Statistics Division

### 1.2. Contact person

Bulgac Svetlana, Head of Division

Tel.: +373 22 40 30 55

e-mail: [svetlana.bulgac@statistica.gov.md](mailto:svetlana.bulgac@statistica.gov.md)

## 2. Metadata Update

### 2.1. Last certification of metadata

19.02.2018

### 2.2. Last update of metadata

19.02.2018

## 3. Statistical Presentation

### 3.1. General description

The Industrial Production Price Index (IPPI) measures the overall evolution of the prices of industrial products/services manufactured and delivered in the first trading stage by domestic producers during a certain period as against a previous period.

IPPI is developed on monthly basis; the following indices are calculated:

- as against the previous month,
- as against December of the previous year,
- as against the respective month of the previous year or of another year,
- as against the average of the base year (2011)
- for the period from the beginning of the current year as against the respective period of the previous year

### 3.2. Concepts and definitions

#### 3.2.1. Definitions

The Industrial Production Price Index (IPPI) measures the overall evolution of the prices of industrial products/services manufactures and delivered in the first trading stage by domestic producers during a certain period (called current period) as against a previous period (called base or reference period).

To develop the Industrial Production Price Index, only the transactions from the first trading stage are taken into account, when the products leave the production enterprises.

*The object of commercial transactions* carried out by the industrial producers to buyers refers to the products sold at the most detailed level (products-assortment). The list of these products is set preventively and is constant for a certain period of time with the possible update upon need. Commercial transactions may be carried out on the domestic and non-domestic markets.

*Observed variable* represents the price associated with the transaction, which will be determined depending on the seller (economic unit), the specific nature of the product - subject to transaction, type of

buyer, and other characteristics of the transaction.

The prices for the products sold by the economic units are registered separately for deliveries on the domestic and non-domestic markets.

### 3.2.2. Unit of measurement

The prices registered by the enterprise are expressed in *lei MD* for a set measurement unit of the product, without the value-added tax and excise duties.

### 3.2.3. Computation formula

The Industrial Production Price Index is calculated according to the following formula:

$$i_s = \frac{P_{S_1}^t}{P_{S_0}^0} * 100 \quad (1) \text{ computation formula of the price elementary index } i_s \text{ during the period } t \text{ as}$$

against the base period  $\theta$  at the product-assortment level  $s$ , where  $P^t$  and  $P^0$  are the prices of the product-assortment during the period  $t$  and respectively  $\theta$  (*base*).

$$I_{t/0}^n = \frac{\sum_{i=1}^n i_s^i * W_0^i}{\sum_{i=1}^n W_0^i} * 100 \quad (2) \text{ Laspeyres general computation formula for the weighted index for the}$$

senior levels of the CAEM, rev.2 classification and per total general, where  $W_0$  is the weight (value of sales) of the respective weighting element (class, group, division, section of CAEM, rev.2) during the base period  $\theta$

## 3.3. Used classifications

- Classifier of Activities in Moldova Economy rev. 2 (CAEM - *Clasificatorul Activităților Economiei Moldovei in Romanian*), harmonized with EU NACE Rev. 2.
- Statistical Classifier of Products and Services in Moldova (CSPM - *Clasificatorul Statistic al Produselor și Serviciilor Moldovei in Romanian*), harmonized with the EU CPA-2008.
- Nomenclature of Industrial Products and Services, harmonized with the European standard PRODCOM-2013.
- Nomenclature of products-assortment established for the price survey.

## 3.4. Scope

### 3.4.1. Sector coverage

The scope of the Industrial Production Price Index is represented by all the products manufactured and sold (on the domestic and/or non-domestic market) by the industrial enterprises the main activity of which fits the divisions 05÷35 from the CAEM, rev.2.

The Industrial Production Price Index covers almost totally the mining and quarrying and manufacturing sectors, as well as the energy sector, except for energy resources' distribution services.

The following is not covered in the index calculation:

- unique products from the machinery building branch;
- production which is manufactured and delivered within the same enterprise (internal consumption).

### 3.4.2. Statistical population

The survey covers the enterprises with their main activity in industry, which are covered by the sample set by NBS.

### 3.4.3. Geographical coverage

Information is developed and disseminated without covering the data of the enterprises and organizations from the left side of the River Nistru and Bender municipality.

### 3.4.4. Time coverage

Time series are available also on the NBS web site, on monthly basis: starting with 2004, on annual basis

- starting with 1998
<b>3.5. Disaggregation level</b>
Data are available by activities at the level of CAEM, rev.2 divisions and classes, observing the requirements for confidentiality of disseminated data.
<b>3.6. Dissemination periodicity</b>
Monthly
<b>3.7. Timeliness</b>
The data are available on the 15 <sup>th</sup> day after the reported month, according to the Program of Statistical Works.
<b>3.8. Revision</b>
Data are final when disseminated for the first time.
<b>3.9. Period of reference</b>
The period of reference is: <ul style="list-style-type: none"> <li>- December of the previous year;</li> <li>- previous month,</li> <li>- the corresponding month of the previous year,</li> <li>- average of the base year 2011;</li> <li>- the corresponding period of the previous year;</li> </ul>

## 4. Data Collection and Processing

### 4.1. Data source

#### 4.1.1. Statistical surveys

The monthly statistical survey PREȚIND – Industrial Production Prices Survey.

#### 4.1.2. Administrative sources

Not used.

#### 4.1.3. Estimations

No estimations are made.

### 4.2. Characteristics of the statistical survey

#### 4.2.1. Objective and background

**The aim of the survey** and the goal for developing the Industrial Production Price Index is to determine the variation of industrial production prices.

IPPI is used for:

- monitoring inflation processes in the country;
- recalculating in constant prices the value of industrial production (as a deflator), etc.

*Background of IPPI development in NBS:*

- the first pilot calculations of IPPI – in 1990;
- 1991 – implementation of the survey;
- 1993-1994 – improvement of the indicators' system and implementation of automated system for IPPI calculation;
- change of the weights' system, sample revision for enterprises and basic products for price survey – 1996, 2001, 2006, 2011.
- implementation of the activities' classifier CAEM, harmonized with ISIC, and subsequently with NACE - 2001, 2003;

- improvement of IPPI calculation methodology based on the Products' Nomenclature PRODMOLD-2004,
- harmonized with PRODCOM, implemented in 2004,
- renovation of the survey based on the improved IPPI methodology, based on the IMF and Eurostat methodology - year 2008
- development and implementation of the applications' system for IPPI calculation – 2008
- Implementation in the calculation of IPPI of the Classifier of Activities in Moldova Economy rev. 2 , harmonized with EU NACE Rev. 2 and of the Nomenclature of Industrial Products and Services, harmonized with the European standard PRODCOM-2013

#### **4.2.2. Statistical unit**

The enterprise is the statistical unit.

#### **4.2.3. Circle of units covered in the survey**

*Nomenclature-sample of enterprises*, representative (minimum 70%) within CAEM class – about 300 enterprises with their main activity in industry. Source – statistical sub-registry of enterprises for industrial production volume survey, with 20 and more persons employed in the main activity and a turnover of 3 mil. lei and more, subject to monthly survey;

*Nomenclature-sample of products' groups*, part of the PRODMOLD-2013 Nomenclature, representative at the level of economic unit, as well as at the level of CAEM, rev.2 class (minimum 70%) - over 900. Source – the same;

*Nomenclature-sample of products-assortment* – groups of homogeneous products with common technical-functional characteristics and minimally dispersed level of prices, the most detailed level at which prices are registered; representative within every PRODMOLD-2013 product of the enterprise (minimum 70%); unique only for every economic unit; the last one was set at the end of 2011 – about 1800.

#### **4.2.4. Survey periodicity**

Monthly

#### **4.2.5. Data collection**

The data are collected based on the self-registration method by economic units and presentation in person at the territorial statistical office – until the 25<sup>th</sup> day of the reported month.

### **4.3. Data processing and compilation**

#### **4.3.1. Data validation**

Data are verified and analyzed from their quality point of view, especially in relation to their internal coherence, temporal coherence, as well as coherence with other data, at the first stage – by the territorial statistical body, and afterwards – at the central level by NBS. The control methods allow verifying:

- integrity of the data filled in the report;
- compliance of the identification data;
- observance of logical conditions for data correlation.

Controls are based on visual methods, as well as automated ones, by using soft applications.

#### **4.3.2. Compilation/extrapolation of data**

The extrapolation of the elementary indices, calculated based on the collected primary data, at the senior levels of the CAEM, rev.2 classifier (class, group, division, section) and per total industry is performed by using the weights (the value of sales -  $W_0$ ) of the base year 2011 according to the Laspeyres formula (see formula 2), p.3.2.3.

#### **4.3.3. Adjustments**

No adjustments are made.

#### **4.3.4. Quality assurance**

The quality of statistical data is assured by observing the fundamental principles of official statistics approved by the UN Economic Commission for Europe in 1992 (and Statistical Commission/UN in 1994), as well as those set forth in the Republic of Moldova Law on Official Statistics.

In its activity of producing statistical information, NBS pays huge importance to ensuring high quality of data. In this respect, a number of measures for quality assurance are carried out at every stage of the statistical process: organization of statistical surveys, collection, processing, and development of statistical information.

Important efforts are undertaken to ensure the plenitude and quality of data presentation by the respondents included in the statistical surveys.

Errors, inconsistencies, and suspicious data are brought to light so as to be verified and corrected.

The primary data are verified and analyzed from internal coherence point of view (within the questionnaire), temporal coherence (with data from previous periods), with data of other similar units, as well as with data available from other statistical surveys and administrative data sources. The missing or inconsistent data are imputed, if needed.

To ensure the quality of the primary data, meetings (seminars) are organized with respondents for explaining the definitions, the correct way to fill in the questionnaires, especially when they are modified or implemented.

#### **4.4. Data accuracy**

##### **4.4.1. Non-response rate**

The non-response rate for PREȚIND survey accounts for about 1%.

##### **4.4.2. Sampling errors**

No sampling errors are calculated.

### **5. Comparability and Coherence**

#### **5.1. International comparability**

International comparability is ensured, first of all, by use of central classifiers, harmonized with the respective UN and EU standards. The calculation methodology for IPPI complies with the standards of the International Monetary Fund and Eurostat.

#### **5.2. Comparability over the time**

Comparability over the time is ensured.

#### **5.3. Coherence with other statistics**

Coherence with other statistics is ensured by use of the same classifiers, as well as of some common definitions and notions in the indicators' calculation methodology.

### **6. Institutional Mandate (normative-legal basis)**

The NBS activity is based on respecting the Republic of Moldova Constitution, the Law on Official Statistics No. 93 dated 26.05.2017, other legislative and normative acts, NBS management decisions and orders.

The Law on Official Statistics regulates the organization and operation of the unique system of official statistics, establishing the general principles for collecting, processing, centralizing, diminishing, and stocking statistical information (art.1).

Art. 5 of the Law provides that the production of statistical information is based on respecting the following principles: impartiality, objectiveness, relevance, transparency, confidentiality, cost-efficiency etc.

Being the central statistical body, the National Bureau of Statistics is an administrative authority created under the Government for leading and coordinating the activity in the statistics area.

In line with the Government Decision No. 1034 dated 29.12.11 on approval of the NBS Regulation and the Nominal Composition of the NBS Collegium, the National Bureau of Statistics:

- develops alone or jointly with other central administrative authorities and approves the methodologies for statistical surveys, as well as the methodologies for calculating statistical indicators, in line with the international standards, especially the EU standards, and with the advanced practice of other countries, and taking into account the peculiarities of the social-economic conditions of the Republic of Moldova;
- organizes, in line with the Program of Statistical Work, approved annually by the Government, statistics surveys regarding the economic, social, and demographic situation and development of the country, carrying out collection, processing, centralization, stocking, and dissemination of statistical data;

The legislative and normative acts ruling the activity of the NBS are available on its official page [www.statistica.md](http://www.statistica.md) , under About NBS (<http://www.statistica.md/pageview.php?l=en&idc=323&> )

## 7. Confidentiality

### 7.1. Principles

According to art. 19 of the Law on Official Statistics No. 93 dated 26.05.2017, producers of official statistics shall take all regulatory, administrative, technical and organizational measures to protect confidential data and prevent their disclosure.

Chapter VII of the above-mentioned law stipulates that the data collected, processed and stored for the production of statistical information are confidential if they allow the direct or indirect identification of the respondents. ) The following shall not be considered confidential:

- a) data that can be obtained from publicly accessible sources according to the legislation;
- b) individual data on address, telephone, name, type of activity, number of employees of legal entities and individual entrepreneurs;
- c) data referring to public enterprises, institutions and organizations funded from the budget, submitted at the request of the public administration authorities.

According to the Law on Official Statistics, art. 20, access to confidential information is granted to the persons who, according to their official functions, participate in the production of statistical information shall have access to individual data in so far as individual data are necessary for producing this information.

The same article stipulates that the access to individual data, which do not allow the direct identification of respondents, may be given for scientific survey projects, whose expected results do not refer to identifiable individual units, under the regulation approved by the central statistical authority.

Art. 23 (5) of the Law stipulates that the the statistical information cannot be disseminated to users if it refers to 1-3 statistical units.

### 7.2. Practical assurance of the confidentiality rules

To ensure the protection of confidential statistical data in compliance with the Law on Official Statistics No. 93 dated 26.05.2017, the National Bureau of Statistics undertakes all the regulatory, administrative, technical, and organizational measures to protect the confidential statistical information and prevent its disclosure.

In compliance with the above-mentioned law, the employees of producers of official statistics, including temporary employees who, according to their official functions, have direct access to individual data shall be obliged to observe the confidentiality of these data during and after termination of employment.

Before being disseminated, the statistical data are verified if they meet the protection requirements set for confidential data. If the statistical data contain confidential information (see p. 7.1), they are not disseminated, but aggregated at the minimum available level which ensures the protection of data confidentiality.

## 8. Access to Information and Dissemination Format

### 8.1. Access to information

#### 8.1.1. Calendar of statistical publications

Annually the Advance release calendar is developed by NBS.



### 8.1.2. Access to the calendar of statistical publications

The press release calendar is posted on the NBS official page [www.statistica.md](http://www.statistica.md) .

### 8.1.3. Access to statistical data

According to the Law on Official Statistics No. 93 dated 26.05.2017, art. 23:

- a) Producers of official statistics shall be obliged to disseminate the statistical information within the deadlines specified in the programme of statistical works and in the press-release calendar.
- b) The dissemination of statistical information laid down in the programme of statistical works to all categories of users shall be made free of charge and under equal access conditions in terms of volume, quality and time of dissemination

The program of statistical work may be accessed on the web page [www.statistica.md](http://www.statistica.md), under About NBS / legislative and normative acts (<http://www.statistica.md/pageview.php?l=en&idc=323&> )

The NBS web page [www.statistica.md](http://www.statistica.md) represents the most important information source for ensuring users' access to different statistical information and transparency about the NBS activity.

All the operative information, informative notes, time series, as well as the statistical publications developed by NBS are placed on its official web page.

## 8.2. Dissemination format

### 8.2.1. Operative information / Analytical notes

The operative information and analytical notes are published on the official page of NBS: <http://www.statistica.md> under Press Releases, according to the Press Release Calendar.

### 8.2.2. Publications

Publications developed by NBS which contain statistical data on price indices:

- Statistical Yearbook of the Republic of Moldova,
- Territorial statistics,
- Statistical pocket-book “Moldova in Figures”,
- Social-Economic Situation of the Republic of Moldova
- Prices in the Republic of Moldova (*last edition – 2011*)

Access to publications:

- in electronic format, on NBS official page [www.statistica.md](http://www.statistica.md), under Products and services / Publications <http://www.statistica.md/pageview.php?l=en&idc=350&nod=1&> )
- in hardcopy format – in NBS library (more details at the address <http://www.statistica.md/libview.php?l=en&idc=340&id=2400> )
- or may be procured at the NBS office (more details at the address [www.statistica.md](http://www.statistica.md), under Publications <http://www.statistica.md/pageview.php?l=en&idc=350&id=2219> )

### 8.2.3. Databases/time series

- **Statistical databank** <http://statbank.statistica.md> , under Economic statistics / Prices / Producer Price Indices

- **NBS official page:** <http://www.statistica.md> under: Press Release, Statistics by themes / Prices / Producer Price Indices, Publications;

- **Special Data Dissemination Standard (SDDS):** <http://www.statistica.md/SDDS/NSDP/>

### 8.2.4. Questionnaires/data sent upon request from international organizations

International questionnaires' of UN, ECC, Eurostat, CIS, etc.

### 8.2.5. Requests for additional data

NBS makes available for users additional statistical information beyond the data presented in the statistical publications, informative notes, operative information, as well as the data placed on the official web page in the limits of available information, in line with the Law on Official Statistics. Request can be sent personally, by post, by e-mail or via online web form – [www.statistica.md](http://www.statistica.md) heading Products and services / Statistical data request [http://www.statistica.md/solicitare\\_informatii\\_statistice.php?l=en](http://www.statistica.md/solicitare_informatii_statistice.php?l=en)

## 9. Useful References (links)

### 9.1. Accessibility of documentation on methodology

The methodology is available on the official page [www.statistica.md](http://www.statistica.md) , under Metadata (<http://www.statistica.md/pageview.php?l=en&idc=351&nod=1&> ).

### 9.2. Accessibility of documentation on Evaluation Reports

The NBS assessment reports are available on the official page [www.statistica.md](http://www.statistica.md) , under About NBS / Assessments and Opinions on NBS / Assessment Reports (<http://www.statistica.md/pageview.php?l=en&idc=399&id=2739> ).

### 9.3. Accessibility of information on user surveys

User surveys are available on the official page [www.statistica.md](http://www.statistica.md) , under About NBS / Assessments and Opinions on NBS / User Surveys (<http://www.statistica.md/pageview.php?l=en&idc=399&id=2740> ).

### 9.4. Other useful references

IMF Special Data Dissemination Standard (SDDS)

<http://www.statistica.md/SDDS/?lang=en>

EUROSTAT database

<http://ec.europa.eu/eurostat/data/database>

UNData database

<http://data.un.org/Browse.aspx>

UN Economic Commission for Europe database

<http://w3.unece.org/pxweb/Dialog/>