

# Consumer Price Index

Metadata

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

## 1. Contact Information

### 1.1. Responsible subdivision within NBS

Consumer Prices Statistics Division

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## 2. Metadata Update

### 2.1. Last certification of metadata

20.02.2024

### 2.2. Last update of metadata

20.02.2024

## 3. Statistical Presentation

### 3.1. General description

**Consumer Price Index (CPI)** is meant to measure the changes in dynamics of the overall level of prices for products and services purchased for consumption by the households from the country. CPI is a monthly indicator, calculated only for the elements from population direct consumption, excluding the following: consumption of goods and services from household's own production, expenses for investments and accumulations, interest rates for credits, insurance rates, fines, taxes, etc., as well as the expenses related to labor remuneration for households' (agricultural) production. CPI measures the general changing trend of the consumer prices over the time.

**Methodology for CPI calculation** complies with the recommendations of the international organizations, especially those set forth in the Manual on Consumer Price Index, **developed** by the International Labor Organization (ILO), International Monetary Fund (IMF), Organization for Economic Cooperation and Development (OECD), World Bank (WB) and approved by the Decision of the general director of NBS no. 50 of July 13, 2018, as subsequently amended and supplemented.

The CPI development is performed by NBS based on the sampling surveys on: 1) consumer prices for the main goods and services and 2) household budgets, which provide data necessary to calculate the share of household expenditures by groups of goods and services, adjusted to the final consumption of households in the National Accounts.

**CPI calculation** is carried out based on the households' budgets structure and prices registered on monthly basis for 1300 representative goods and services in 900 outlets located in 8 cities of the country.

The CPI is disseminated at the level of major groups (food, non-food and services) and groups by categories of goods and services. Since January 2008, the elaboration and dissemination of the CPI has been carried out according to the classification of Individual Consumption Expenditures, adjusted to the Classification of Individual Consumption by Destination (COICOP) of the United Nations (UN), ensuring data comparability at the level of 12 COICOP divisions.

Since January 2021 the elaboration and dissemination of the CPI is carried out according to the harmonized COICOP classification to the ECOICOP 2013 classification. The household expenditure classification was elaborated by the National Bureau of Statistics of the Republic of Moldova and approved and implemented starting with January 1, 2019 by the Decision of the National Bureau of

Statistics no. 03a of January 29, 2019. Therefore, the CPI is also disseminated at the level of 98 COICOP classes.

Details at: <https://statistica.gov.md/pageview.php?l=ro&idc=385&>

The statistical data on CPI characterize the general evolution of the prices for purchased goods and of the tariffs for the services used by population, offering the users information about the inflation processes in the country, which are necessary for developing, monitoring and assessing the implementation of economic, monetary, and social policies.

### 3.2. Concepts and definitions

#### 3.2.1. Definitions

**Consumer Price Index** it is an economic indicator, which measures the overall evolution of the prices of purchased goods and tariffs for services used by the population between two periods (current and basic).

**Monthly inflation rate** represents the increase in consumer prices in one month as against the previous month.

**Monthly average inflation rate** expresses the average of monthly price increases. It is calculated as a geometrical mean of the monthly consumer price indices with a chain base from which the comparison basis equal to 100 is subtracted.

**Yearly inflation rate** represents the increase of the consumer prices in one month of the current year, as against the same month of the previous year.

It is calculated as a ratio expressed as a percentage, between the consumer price index for a month of the current year and the index for the corresponding month of the previous year, calculated against the same basis, minus 100.

**Yearly average inflation rate** represents the average increase of the consumer prices in one year as against the previous year.

It is calculated as a ratio, expressed as a percentage, between the average consumer price index for one year and that of the previous year, minus 100.

**Inflation rate at the end of the year** represents the increase in consumer prices in December of one year compared to the same month of the previous year. Informative: in December of each year, the inflation rate at the end of the year coincides with the annual inflation rate (it is the same indicator).

The rate is calculated based on the product of the monthly chain-based indices relative to 100. From this product expressed as a percentage, subtract 100.

#### 3.2.2. Unit of measurement

Data on price variation are presented in percentage (%).

#### 3.2.3. Computation formula

**CPI is calculated as a Laspeyres type index with a fixed base**

General formula for calculating the index:

$$L_{t/0} = \sum I_{t/0} \left( \frac{p_0 q_0}{\sum p_0 q_0} \right)$$

$L_{t/0}$  = the aggregate index of consumer prices in the current period (1) compared to the reference period (0);

$I_{t/0}$  = indices of the current period compared to the reference period, by stages of aggregation;

$p_0$  - the consumer price of the product in the reference period;

$q_0$  - the share of the given product in the consumption of the reference period.

$\frac{p_0 q_0}{\sum p_0 q_0}$  = weights related to the aggregation stages (relative importance of expenses per household in the

previous year).

Simple price indices.

Calculation of price indices of the product:

$$i_{vi} = \frac{p_l^{vi}}{p_0^{vi}} * 100$$

$p_l^{vi}$  = product price  $i$  registered in the current period;

$\overline{p_0^{vi}}$  = average of the product prices  $i$  in the reference period.

Formula of calculation:

$$I_{vi} = 100 * (MG^4_{\text{year } U_i, \text{ month } W_i, \text{ group } T_i}) / (MG^4_{\text{year } U_0, \text{ month } W_0, \text{ group } T_0});$$

$MG^4$  = geometrical mean of prices in the country for every group of products in the current month.

### 3.3. Used classifications

- COICOP (UN) classification agreed by the EEC / EUROSTAT / OECD, harmonized with the European Classification of Individual Consumption by Destination (ECOICOP 2013);
- The nomenclature of the localities included in the selective survey for the calculation of the CPI;
- Nomenclature of collection centers (shops and service providing units), included in the selective survey for the calculation of the CPI;
- Nomenclature of representative goods and services included in the selective survey for the calculation of the CPI.

### 3.4. Coverage

#### 3.4.1. Sector coverage

Statistical survey on the evolution of consumer prices includes retail prices on the domestic market for food, non-food and services to the population, recorded in collection centers (shops and service providing units), included in the selective survey for the calculation of the CPI.

#### 3.4.2. Statistical population

The statistical survey on consumer price evolution covers the retail trade units for food and non-food products and those providing services for population for their own consumption.

The Household Budget Survey covers the households of the Republic of Moldova resident population (excluding those who live in such institutions as prisons, asylums for elderly people, and students' hostels).

#### 3.4.3. Geographical coverage

The information is developed and disseminated without the data of the localities from the left bank of the Dniester river and of the Bender municipality.

#### 3.4.4. Time coverage

Time series are available starting with 1991.

### 3.5. Disaggregation level

The result data are disaggregated by the following major groups:

Food products

Non-food products

Services

Including, according to the COICOP Classification:

Starting with January 2015, the data are disaggregated into 12 COICOP divisions.
Starting with January 2021, the data are disaggregated into 98 COICOP classes.
Starting with January 2022, the time series is disseminated at the level of 12 divisions COICOP 2015=100.
<b>3.6. Dissemination periodicity</b>
Monthly
<b>3.7. Timeliness</b>
The 12 <sup>th</sup> day after the reference month.
<b>3.8. Revision</b>
Monthly and annual data are final at the first dissemination.
The expenditure weights used to calculate the CPI are updated annually. Starting with 2016, expenditure weights are estimated by applying the geometric mean of household expenditures according to the Household Budget Survey (HBS) and data on final consumption of households at the level of 4 COICOP signs in the National Accounts for the year "t-2".
The transition to the new weighting coefficients is performed at the beginning of each year, in the same time with the elaboration of the CPI for January.
As an exception, taking into account the impact of the Covid-19 pandemic on the social and economic situation in the country in 2020, the expenditure weights for this year could not be considered representative. Therefore, for the calculation of the CPI in 2022, the expenditure weights of 2019 have been maintained.
The data revision policy is in accordance with the Data Revision Policy, approved by NBS order no. 35 of 30.08.2022:
<a href="https://statistica.gov.md/files/files/despre/planuri/Politici/Politica_revizuire_2022_en.pdf">https://statistica.gov.md/files/files/despre/planuri/Politici/Politica_revizuire_2022_en.pdf</a> .
<b>3.9. Period of reference</b>
The previous month, December month of the previous year, the respective month of the previous year, the corresponding period of the previous year, 2015=100.

<b>4. Data Collection and Processing</b>
<b>4.1. Data source</b>
<b>4.1.1. Statistical surveys</b>
The collection of retail prices for representative goods-services included in the survey is performed by specialized statistical staff.
<b>4.1.2. Administrative sources</b>
Not used.
<b>4.1.3. Estimations</b>
The imputed pricing method applies to seasonal products and goods that have temporarily disappeared from the market.
<b>4.2. Characteristics of the statistical survey</b>
<b>4.2.1. Objective and background</b>
The main objective: Tracking the evolution of prices over time, using concrete methods of collecting and recording prices, to calculate the consumer price index.
In the Republic of Moldova, the CPI is developed and calculated similarly to that applied in most countries. Since 2004, the CPI calculation methodology has been revised by the International Monetary Fund (IMF). According to the NBS - Norway Bureau of Statistics (bilateral advisory and financial assistance) bilateral cooperation program, a new set of programs for the introduction, transmission and processing of primary information was developed in 2007. With the financial support of the World Bank,

in 2012 Tablets were purchased. In 2013, a new software was developed for recording and transmitting primary information.

According to the IMF recommendations and taking into account the fact that the household financial expenditures of the population according to HBS are calculated on 4 statistical regions (North, Center, South and Chisinau municipality), starting with January 2016 the CPI is also calculated at regional level. The CPI at regional level is disseminated in total and in major groups.

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

The observation unit is the commercial or service unit.

The recording unit is the consumer product (service) included in the survey.

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

A two-step survey plan is used to survey the consumer prices.

**At the first stage** were extracted 8 localities from the urban environment: the municipalities of Chisinau and Balti and the cities of Cahul, Comrat, Edinet, Orhei, Soroca, Ungheni. The extraction was carried out in compliance with the provisions of representativeness depending on the number of inhabitants and the volume of sales of goods and service providers.

**At the second stage**, the observation units were selected: shops and units providing services to the population. The selection of observation units took into account the representativeness in terms of the volume of retail sales and services for each group, so as to include the entire Nomenclature of Representative Goods and Services included in the selective survey for the calculation of the CPI. The sample includes about 900 collection centers.

***Nomenclature of representative goods and services*** - includes goods and services that have a significant share in the consumption of the population.

The nomenclature used is structured in three levels of aggregation:

- The major *Food* group comprises 109 groups with over 400 products;
- The major group *Non-food goods* includes 158 groups with over 70 goods;
- The major *Services* group comprises 79 groups with over 200 services.

The sources of the share of expenditures made by the population for the product groups included in the survey when calculating the CPI are the Household Budget Survey (HBS) and the National Accounts. A sample of about 1,200 households, both urban and rural, is used annually for CBGC. HBS includes only private households. Institutions such as penitentiaries, nursing homes and dormitories are not included in the weights calculated according to the HBS. In addition, households in which persons living abroad as temporary residents in the Republic of Moldova are excluded.

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

Monthly

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

Type of survey: sampling.

Period of registration: prices are registered during the whole month.

The agenda of registration is as follows:

The observation and registration of *Food* prices is carried out during the days of 01-15 and 16-30 (31) of each month, and the deadline for transmitting data to the NBS is 16 and 30 (31), respectively, of the current month.

The registration of prices for *Non-food goods / Services* is carried out throughout the month and the deadline for data transmission is 30 (31) of the current month.

has two parts for all the food products (data are presented twice per month), while for the non-food products and services prices are registered during the whole month and are sent to the central office at the

end of the month.
<u>Registration method</u> : the registration is carried out by 20 specialists-interviewers, personally visiting the trade units or service providers. Interviewers strictly identify the product-service according to the patterns indicated in the Nomenclature (quality, mass, quantity, size, etc.), ensuring continuity from one registration period to another (usually, the products are not substituted).
<u>Survey toolkit</u> : the price is fixed using Tablets. The primary registered information is sent to NBS on electronic support for analysis and subsequent calculation.
<b>4.3. Data processing and compilation</b>
<b>4.3.1. Data validation</b>
The data are verified and analyzed for their quality, in particular internal and temporal coherence.
<b>4.3.2. Compilation/extrapolation of data</b>
Not applicable.
<b>4.3.3. Adjustments</b>
Application of seasonal adjustments.
<b>4.3.4. Quality assurance</b>
<p>The quality of statistical data is assured by observing the Fundamental Principles of Official Statistics adopted by the UN General Assembly on 29 January 2014, as well as those set forth in the national Law on Official Statistics no. 93 of 26 May 2017.</p> <p>In the activity of producing statistical information, the NBS attaches a high importance to ensuring the high quality of data.</p> <p>To this end, a series of quality assurance measures are implemented at each stage of the statistical approach: in the process of organizing statistical survey, collection, processing and elaboration of statistical information.</p> <p>Significant efforts are being made to ensure the completeness and quality of data presentation by respondents included in statistical surveys.</p> <p>Error data, inconsistencies and suspicious data are revealed in order to verify and specify them.</p> <p>Primary data are verified and analyzed for internal coherence (according to the <i>Nomenclature</i>), temporal coherence (with data for previous periods), with data from other similar units, as well as data available from other statistical surveys. If necessary, the missing or inconsistent data are imputed.</p> <p>To ensure the quality of primary data, training seminars are organized with interviewers to explain the importance of recording prices, the content of the <i>Nomenclature</i>, the correct way to identify the product as described in the <i>Nomenclature</i> and the methodology of recording prices, how to use the <i>Tablets</i>.</p>
<b>4.4. Data accuracy</b>
<b>4.4.1. Non-response rate</b>
Not applicable
<b>4.4.2. Sampling errors</b>
Not applicable

<b>5. Comparability and Coherence</b>
<b>5.1. International comparability</b>
The methodology for calculating the CPI in the Republic of Moldova corresponds to international standards and is developed in accordance with the Consumer Price Index Manual, published by ILO (2004).
<b>5.2. Comparability over the time</b>
Comparability over the time is ensured

### 5.3. Coherence with other statistics

#### *Coherence with data from the Household Budget Survey (HBS):*

Statistical data on expenditures by the population for the product groups included in the calculation of CPI are applied from the CBGC research. The sample of the research is a representative probabilistic one at country level, by residence area and by statistical regions: North, Center, South and mun. Chisinau. A sample of about 1,200 households, both urban and rural, is used annually for CBGC.

From this sample, the total expenditures of households in the Republic of Moldova for about 400 groups of products / services during an entire year are estimated. Thus, starting with January 2014, for the calculation of the CPI for the current year, the weights of expenditures made by households in year t-2 adjusted to the structure of monetary expenditures in National Accounts are used. Based on these estimates, the relative proportions of expenditure for each product group are calculated annually, resulting in the weights for the product and service groups in the CPI structure.

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

The activity of the NBS is based on the observance of the Constitution of the Republic of Moldova, the Law on official statistics no. 93 of 26.05.2017, other legislative and normative acts, orders and dispositions of the NBS management.

The law on official statistics stipulates the organization and functioning of the unique system of official statistics, with the establishment of general principles for the collection, processing, centralization, dissemination, storage of statistical information (art. 1).

Art. 5 of the Law stipulates that the production of statistical information is based on the observance of the principles of professional independence, impartiality, objectivity, relevance, transparency, confidentiality, cost / efficiency, etc.

The National Bureau of Statistics, in its capacity as a central statistical body, is an administrative authority created under the Government to lead and coordinate the activity in the field of statistics.

In accordance with Government Decision 935 of 24.09.2018 on the organization and operation of the NBS, the Bureau exercises the following tasks:

- 1) Coordinates the national statistical system on the development and production of official statistics;
- 2) Develop and implements strategies for the development of the national statistical system, annual and multiannual statistical programs;
- 3) Develop the normative and institutional framework necessary for the achievement of the strategic objectives in its field of activity, as well as the mechanisms for their implementation in practice;
- 4) Performs the management and control of the achievement in quality conditions of the programs and statistical plans adopted at central and regional level;
- 5) Harmonizes and aligns national statistical indicators, methodologies, methods and techniques with international regulations and standards;
- 6) Promotes the statistical culture in the society.

The legislative and normative acts ruling the activity of the NBS are available on its official page <https://statistica.gov.md/en>, under *About* ( <https://statistica.gov.md/en/normative-acts-56.html> ).

## 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.

Are not considered confidential:



- a) data that can be obtained from public access sources, according to the legislation;
- b) individual data regarding the address, phone number, name, type of activity, number of employees of legal entities and individual entrepreneurs;
- c) data concerning the 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, have access to the individual data the persons who, according to the service attributions, participate in the production of the statistical information, insofar as the individual data are necessary for the production of this information.

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

Art. 23 (5) of the Law stipulates that “Statistical information may not be disseminated to users if it refers to 1–3 statistical units”.

## 7.2. Practical assurance of the confidentiality rules

In order to ensure the protection of confidential statistical data, in accordance with the Law on official statistics no. 93 of 26.05.2017, the National Bureau of Statistics undertakes all regulatory, administrative, technical and organizational measures for the protection of confidential data and the non-admission of their disclosure.

According to the Law, the staff of producers of official statistics, including temporary employees, who, according to their duties, have direct access to individual data, are obliged to respect the confidentiality of these data during and after the cessation of activity in that position.

Until the dissemination, the statistical data are checked for compliance with the requirements for the protection of confidential data. If the statistical data contain confidential information (see p.7.1), their dissemination is not carried out and the data is aggregated to the minimum available level which ensures the protection of the confidentiality of it.

## 8. Access to Information and Dissemination Format

### 8.1. Access to information

#### 8.1.1. Calendar of statistical publications

Annually the **Release calendar** is developed by NBS.

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

The release calendar is posted on the NBS official page <https://statistica.gov.md/en>.

#### 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 are obliged to disseminate statistical information within the deadlines set out in the Program of Statistical Work and in the timetable for the dissemination of official statistical information.

b) The dissemination of the statistical information provided in the Program of Statistical Works to all categories of users is carried out free of charge and in equal conditions of access in terms of volume, quality and terms of dissemination;

**The program of statistical work** may be accessed on the web page <https://statistica.gov.md/en>, under *About / Normative acts* <https://statistica.gov.md/en/normative-acts-56.html>.

The NBS web page <https://statistica.gov.md/en> represents the most important information source for ensuring users' access to different statistical information and transparency about the NBS activity.

All news releases, analytical reports, time series, as well as the statistical publications developed by NBS are placed on official web site.

### 8.2. Dissemination format

#### 8.2.1. News releases / Analytical reports

News releases and analytical reports are published on the NBS official web site:



<a href="https://statistica.gov.md/en">https://statistica.gov.md/en</a> under <i>News Releases</i> , according to the <i>Release Calendar</i> .
<b>8.2.2. Publications</b>
Statistical publications: Statistical Yearbook, Statistical Bulletin, Territorial statistics, Prices in the Republic of Moldova ( <i>last edition – 2011</i> ).
Access to publications in electronic format, on NBS official page <a href="https://statistica.gov.md/">https://statistica.gov.md/</a> , under <i>Products and services / Publications</i> ( <a href="https://statistica.gov.md/en/publications">https://statistica.gov.md/en/publications</a> ).
<b>8.2.3. Databases/time series</b>
<ul style="list-style-type: none"> <li>- <b>Statistical databank</b> <a href="https://statistica.gov.md/en/statistical-databank-78.html">https://statistica.gov.md/en/statistical-databank-78.html</a>, under <i>Economic statistics / Prices / Consumer Prices Index</i>.</li> <li>- <b>NBS official webpage:</b> <a href="http://www.statistica.gov.md">http://www.statistica.gov.md</a> under: <ul style="list-style-type: none"> <li>• <i>Media / News releases</i></li> <li>• <i>Statistics by themes / Economic statistics / Prices / Consumer Price Index</i></li> <li>• <i>Products and Services/ Publications;</i></li> </ul> </li> <li>- <b>Special Data Dissemination Standard (SDDS):</b> <a href="http://www.statistica.gov.md/SDDS/NSDP/">http://www.statistica.gov.md/SDDS/NSDP/</a></li> </ul>
<b>8.2.4. Questionnaires/data sent upon request from international organizations</b>
Questionnaires with data are presented to Eurostat, IMF, CSI.
<b>8.2.5. Requests for additional data</b>
NBS makes available for users' additional statistical information beyond the data presented in the statistical publications, news releases, analytical reports placed on the official website, in the limits of available information, in line with the Law on Official Statistics. Request can be sent personally, by post, by e-mail <a href="mailto:moldstat@statistica.gov.md">moldstat@statistica.gov.md</a> or via online web form – <a href="https://statistica.gov.md/en">https://statistica.gov.md/en</a> under: <i>Products and services / Statistical data request: <a href="https://statistica.gov.md/ro/information_request">https://statistica.gov.md/ro/information_request</a></i> .
Besides this, NBS can grant access to individual data for scientific research projects in accordance with the Regulation on access to individual data for scientific purposes, approved by NBS Order no. 51 of 31.12.2021. The Regulation and the Annexes to the Regulation can be accessed online - <a href="https://statistica.gov.md/en">https://statistica.gov.md/en</a> under: <i>Products and services / Request for access to microdata: <a href="https://statistica.gov.md/en/request-for-access-to-microdata-205.html">https://statistica.gov.md/en/request-for-access-to-microdata-205.html</a></i> .

<b>9. Useful References (links)</b>	
<b>9.1. Accessibility of documentation on methodology</b>	
The methodology is available on the official page <a href="http://www.statistica.gov.md">www.statistica.gov.md</a> , under <i>Metadata and classifications</i> ( <a href="https://statistica.gov.md/public/files/Metadate/alte/Metodologie_IPC.pdf">https://statistica.gov.md/public/files/Metadate/alte/Metodologie_IPC.pdf</a> ).	
<b>9.2. Accessibility of documentation on Evaluation Reports</b>	
The NBS assessment reports are available on the official page <a href="http://www.statistica.gov.md">www.statistica.gov.md</a> , under <i>About / External assessments and user surveys / Assessment Reports / Global Assessment of the National Statistical System</i> ( <a href="https://statistica.gov.md/en/assessment-reports-9930.html">https://statistica.gov.md/en/assessment-reports-9930.html</a> ).	
<b>9.3. Accessibility of information on user surveys</b>	
User surveys are available on the official page <a href="http://www.statistica.gov.md">www.statistica.gov.md</a> , under <i>About / External assessments and user surveys / User Surveys</i> ( <a href="https://statistica.gov.md/en/user-surveys-9933.html">https://statistica.gov.md/en/user-surveys-9933.html</a> ).	
<b>9.4. Other useful references</b>	
IMF Special Data Dissemination Standard (SDDS)	<a href="https://statistica.gov.md/en/prezentare-general-a-9865.html">https://statistica.gov.md/en/prezentare-general-a-9865.html</a>
EUROSTAT database	<a href="http://ec.europa.eu/eurostat/data/database">http://ec.europa.eu/eurostat/data/database</a>
UNData database	<a href="http://data.un.org/Browse.aspx">http://data.un.org/Browse.aspx</a>
UN Economic Commission for Europe database	<a href="http://w3.unece.org/pxweb/Dialog/">http://w3.unece.org/pxweb/Dialog/</a>