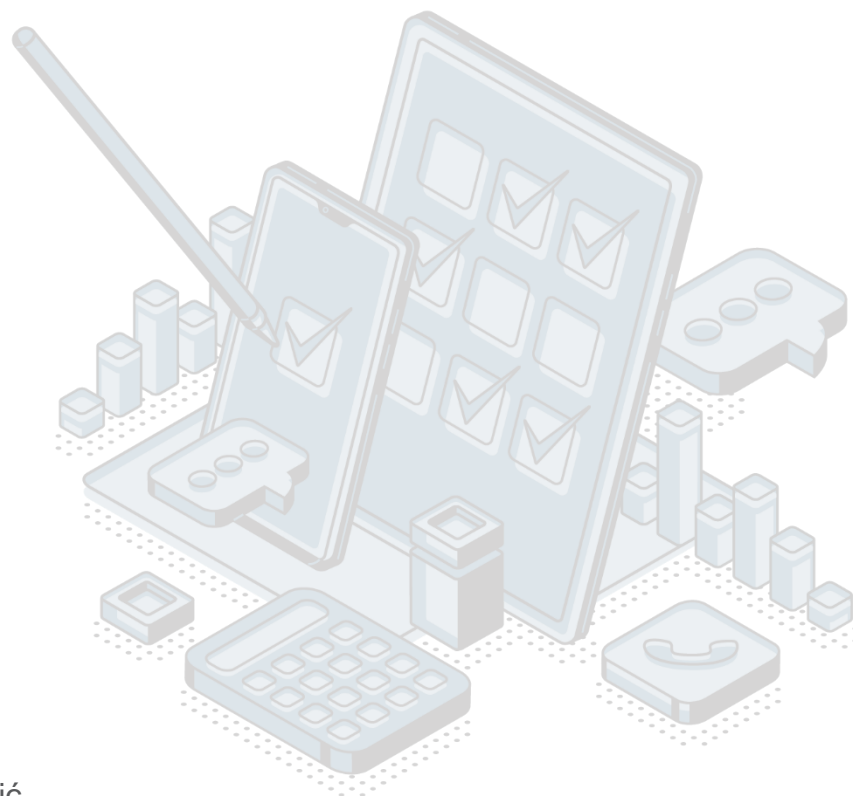


## QUALITY REPORT

# Harmonised Consumer Price Index 2023



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## 1. Introduction – Basic information about the survey

### 1.1 Purpose, goal and subject of the survey

Harmonised indices of consumer prices (HICPs) give comparable measures of inflation for the countries and country groups they are produced. They are economic indicators that measure the change over time of the prices of consumer goods and services acquired by households. In other words, they are a set of consumer price indices (CPIs) calculated according to a harmonised approach and a single set of definitions. In particular, HICPs provide the official measure of consumer price inflation in the euro area for the purposes of monetary policy and the assessment of inflation convergence as required under the Maastricht criteria for accession to the euro.

### 1.2 Legal basics

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12 and 47/19) defines provisions for collection, processing, and dissemination of data. The Law provides to the Statistical Office clear and wide legal powers to collect and access the data necessary for the implementation of Programme and Annual Plan. The Law gives a priority to the use of administrative data and right of access to individual data that are a result of survey of other official statistical producers. As an annex to legal provisions, Statistical Office has signed several memoranda on cooperation with administrative data providers.

Regulation (EU) 2016/792 of the European Parliament and of the Council of 11 May 2016 on harmonized indices of consumer prices and the house price index, and repealing Council Regulation (EC) No 2494/95.

### 1.3 Statistical units

Each published index or rate of change refers to the final household monetary consumption within the economic territory of Montenegro. Reporting units covers all types of retail shops (stores of all types and sizes, green markets, craft workshops, public service companies, catering, sports and cultural-educational facilities and the like) which have the highest turnover. The observation units are retail prices of final consumption products and services, which have a significant share in the total consumption of the average consumer. These products and services make the "basket" of goods and services, which includes mainly products and services, whose share in total consumption of the population exceeds 0.1%.

### 1.4 Coverage and scope of survey

#### 1.4.1 Sectors

HICPs cover the whole household sector, more precisely the goods and services that are acquired by households (domestic concept).

#### 1.4.2 Statistical population

The target statistical universe is the 'household final monetary consumption expenditure' (HFMCE) within the economic territories of the countries compiling the HICP. HICP covers the consumption of all households at the national territory (residents and non-residents).

### 1.5 Referent geographical area

The HICP refers to the whole territory of Montenegro.

### 1.6 Concepts and definitions

*The Harmonized Index of Consumer Prices (HICP)* measures changes in the level of retail prices of goods and services from the point of view of the expenditure structure, which consumers (domestic and foreign) intend for final consumption in the territory of Montenegro (domestic concept). The HICP is used for monitoring the movement of retail prices in EU Member States, comparing inflation rates between Member

States and as the official rate of the European Central Bank (ECB) at ensuring price stability in the Economic and Monetary Union (EMU).

*Elementary aggregates* represent products at the lowest level of aggregation i.e. products in all sales facilities in one geographical location.

*The monthly inflation rate (m/m-1)* measures the change in the average prices of the current month compared to the average prices of the previous month.

*The annual inflation rate (m/m-12)* measures the change in the average prices of the current month compared to the average prices in the same month of the previous year.

*The cumulative index (rate of change)* measures the change in the average prices of the current month compared to the average prices in December of the previous year.

*The base index (rate of change)* measures the average price change in the current month compared to the average of the base year.

*The average annual index (rate of change)* measures changes in average prices from the beginning of the year to the current month compared to the same period of the previous year (e.g. Jan-May 19/Jan-May 18).

*The weights* used for calculation of the HICPs represent a relative share of the selected goods and services in the total household's consumption, in domestic territory. More precisely, they represent the "importance" of a particular product group in total household's consumption in a specific reference period.

## 1.7 Classifications

The HICPs are classified according to the five-digit categories and sub-categories of the ECOICOP - European Classification of Individual Consumption by Purpose (since 2016; before COICOP/HICP - UN Classification of Individual Consumption by Purpose adapted to the needs of Harmonised Indices of Consumer Prices was used).

There are also a set of special aggregates, which combine indices in a different way than the standard COICOP.

## 1.8 Frequency of data collection

For the purposes of calculation of the consumer price index, prices are collected once a month in the period from the 3<sup>rd</sup> to 25<sup>th</sup> of the month, except for the prices of fuel which are collected on a daily basis.

## 1.9 Frequency of data dissemination

Monthly.

## 1.10 Methodology

Compendium of HICP reference documents, 2013 edition, is available on Eurostat's website: [Compendium](#)

## 1.11 Base period

The index reference period is 2015=100.

## 1.12 Unit of measure

Index numbers, percentage, rates.

## 1.13 Data source

The selection of weights: Weights are structure of household consumption obtained on the basis of NA data.

Selection of shops: Criteria for selection of number and type of shops in one town are:

- Type of product or service for which prices are collected;
- Number of population;
- Turnover achieved;
- Price balance of the same product in different shops;
- Continuous supply of goods in shop;
- Consumer's habit;
- Location.

Number of population and product type are the main criteria for selection of number of shops by towns. Due to permanent presence in the field and facing real situation, price collectors, in cooperation with the Price Statistics Department, will take a final decision on selection of collecting places. Selection of shops for price collection is updated every year.

Selection of products: The list of products for which the prices are collected is uniform for entire Montenegro. A final list for price collection is defined by Statistical Office, i.e. Price Statistics Department, after the consultation with price collectors, up to the end of November at the latest.

Price collector selects a product that match to the product description from the product list. If in a shop there are several different products that correspond to the appropriate description, it is selected one that is sold the most in longer time period. Due to this, it is very important that when selecting a product, a sale person is consulted. When a product is selected for which the price will be collected, it is unchanged during an entire year, except in exceptional cases when the product disappears from the market.

### 1.14 Method of data collection

Prices are collected on a monthly basis for selected goods and services in 5 municipalities: Podgorica, Nikšić, Bijelo Polje, Bar, Budva, which represent the biggest market centres. Price collectors, who are part-time employees, trained by MONSTAT, visit the shops every month according to a defined plan for price collecting and collect the prices referring to the representative list of goods and services. Depending on the type of goods or services, some prices are collected in a centralized manner by Price Department, by phone or via the Internet.

## 2. Relevance – Data users

### 2.1 User needs

#### International users:

- ✚ Eurostat;
- ✚ World Bank;
- ✚ UN organizations;
- ✚ International Monetary Fund.

#### National users:

- ✚ Ministries and other public administration bodies;
- ✚ Local government and other local government bodies;
- ✚ Central bank;
- ✚ Non-governmental organizations;
- ✚ Students;

- ✚ Researchers;
- ✚ Media.

## 2.2 User satisfaction

The Statistical Office has adopted the Quality Management Strategy, the Guidebook to the Implementation of the Quality Management Strategy, as well as the Plan for the Implementation of the Quality Policy. In order to measure the degree to which fulfils obligations towards users and within the new quality policy, the Statistical Office conducted User satisfaction survey.

The results of the survey are available on the Statistical Office website, at the following link:

[User satisfaction report](#)

## 3. Accuracy and reliability

### 3.1 Accuracy – Overall remark

The accuracy of HICP is generally considered to be high. The accuracy of source data is monitored by assessing the methodological soundness of price and weight sources and the adherence to the methodological recommendations. There is a variety of data sources both for weights (National Account data, Household Budget Survey data, etc.) and prices (visits to local retailers and service providers and central collection via mail, telephone, e-mail and the internet are used). The type of survey and the price collection methods ensure sufficient coverage and timeliness.

The outlets, from which prices are collected, are chosen to represent the existing trade and services network and they are based usually on three main criteria: Popularity with consumers, significant turnover from consumer sales and availability of goods and services included in the HICP basket. All the private households in the economic territory of the country are covered, whether resident or not and irrespective of their income (domestic concept).

### 3.2 Sampling error

The survey is not based on a random sample, so we cannot use the "classic" approaches to assess the sampling error.

The methodology for calculating the precision of consumer price indices is not yet completely developed because of the complexity of sample design. MONSTAT put efforts to reduce the sampling error by using the sample of consumer prices that is as large as possible, given resource constraints, models that optimize the allocation of resources by indicating the number of prices that should be observed in each municipality and each item category, in order to minimize the variance of the all items index.

#### *Indicators of sampling error*

Not available.

### 3.3 Non-sampling error

The sample defined for collecting consumer prices is not random, but chosen with the purpose of satisfying specific objectives. The basic principle of sample selection has been adopted with the aim of ensuring representativeness of consumer behaviour in terms of the coverage of the most frequently purchased products, the most frequently visited outlets and the best-selling products.

For the HICPs non-sampling errors are not quantified. MONSTAT puts efforts to reduce non-sampling errors through continuous methodological improvements and survey process improvements such as computer assisted price collection, which can help avoiding coding and typing errors.

### 3.3.1 Coverage error

Considering that a purposive sample is in force, coverage errors are not possible.

#### *Indicator of coverage error*

Not relevant.

### 3.3.2 Measurement error

Measurement errors are only possible in the phases of collecting or entering data by price collectors or by persons who enter the data. Questionnaires and methodological instructions were provided to price collectors and with regular interactive communication with them we are trying to minimize the errors. Possible recording and entry errors are corrected before calculating the average prices and consumer price indices, so subsequent revisions were not carried out.

### 3.3.3 Non-response error

Retail prices of selected representative products and services used to calculate the CPI and the HICP are monitored at selected outlets (e.g. shops, markets, craftsmen and other organizations). At the points of sale which were selected in the sample at the beginning of the year, prices should be obtained every month, because the number of sales locations during the year should not be changed. Therefore, each month we have 0% non-response of units.

#### *Non-response rate*

0%.

#### *Non-response unit rate*

In the case of item non-response similar methodological limitations are valid as in the case of unit non-response.

The number of prices which will be collected for the selected product at selected outlets is determined at the beginning of the year and generally does not change, except for retail prices of agricultural products and other products and services which are currently unavailable on the market (e.g. sold out products).

### 3.3.4 Processing error

The cases of major changes in prices, possible replacements of products, missing products, closure of an outlet and changes in the price structure (tariff prices) are handled separately. An attempt is made to detect and correct errors which may occur upon entry of data.

#### *Imputation rate*

Not available.

## 3.4 Seasonal adjustment

In months when seasonal products are not present at the market, the Regulation of European Commission No 330/2009 that regulate seasonal product treatment is implemented. The matrix of seasonal products is established, where price for the supply of products out of season is assessed, so that in the first month of period out of season, the assessed price is equal to typical (average) price collected in previous seasonal period, and from the second month the assessed price is equal to the estimated price for previous month, aligned with an average change in collected prices of all seasonal products which are in seasonal period in the same subgroup of COICOP.

## 3.5 Data revision

### 3.5.1 Data revision policy

Statistical Office has adopted the revision policy and it is available at the following link: [Revision policy](#)

### 3.5.2 Data revision practice

The data are published as final and are not subject to any revision (unless an error or mistake is found), a fact which is noted in the publications.

Major changes in the methodology (classification changes, index reference period, etc.) are announced in the frame of monthly release "Harmonised Index of Consumer Prices" at the time the change is introduced.

### 3.5.3 Data revision - average size

There was no data revision in 2023.

## 4. Timeliness and punctuality

### 4.1 Timeliness

Data are published according to the Statistical Release Calendar in form of regular monthly release.

#### *Time lag of the first results*

Provisional data are final data, so the timeliness of final results is the same as the timeliness of the first results.

#### *Time lag of the final results*

15-20 days.

### 4.2 Punctuality

HICP data are published in accordance with the Statistical Release Calendar for 2023.

## 5. Availability and clarity

### 5.1 Statistical Release Calendar

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 018/12) stipulates that official statistical producers prepare, update, and publish Statistical Release Calendar. It is published on the website of Statistical Office not later than 20 December for the next year, for all official statistical producers that includes date of releasing statistical data. Any change in date of releasing in the Calendar is published in advance in accordance with the Procedure on Unplanned Revisions.

### 5.2 Access to data Release calendar

The calendar of publication of statistical data is available at the following link: [Release calendar](#)

### 5.3 Releases

Data are available in form of monthly releases, precisely HICP data are integral part of *Consumer price indices* press release and are published at the official website: [Releases](#)

### 5.4 Publications

Statistical Office publishes the following regular publications:

- Monthly Statistical Review;
- Statistical Yearbook;



- Montenegro in Numbers.

In addition to the above regular ones, Statistical Office publishes also additionally publications. Some of the most important additional publications are as it follows:

- Women and Men in Montenegro
- The most often used statistical data

All publications published by Statistical Office are available at the following link: [Publications](#)

### 5.5 Online database

Time series of the harmonised index of consumer prices according to the ECOICOP classification can be downloaded from the Eurostat's website at the following link: [Data](#)

### 5.6 Access to micro data

The Law on Official Statistics and Official Statistical System (Official Gazette of Montenegro No 18/12, and 47/19) regulates rules under which external users can obtain an access to individual data for needs of research. Article 58 defines types of scientific and research organizations that can obtain such data.

Providing individual data without identifier is possible only upon a written request of scientific and research institutions, with purpose of performing scientific and research activities as well as international statistical organizations and statistical producers from other countries. Research entity signs the agreement with Statistical Office, and it signs the statement on respecting the confidentiality principle. Official statistical producers keep a separate record on users and purpose of using the statistical data given to these users.

### 5.7 Metadata completeness rate

Not available.

## 6. Comparability

### 6.1 Comparability – geographical

HICP is produced based on HICP minimum standards. Requirements of EU regulations harmonizing HICP definitions and classifications have been implemented into Montenegrin HICP. There is some difficult areas which can be improved (particularly quality adjustment) in order to further improve the comparability. Definitions and classifications have been harmonised in a series of legal acts that have resolved conceptual disparities. HICPs are produced based on minimum standards, which may be applied with some flexibility as long as the effect on the value of the indicator remains below 0.1%.

### 6.2 Comparability - over time

HICP data are considered to be comparable over time. MONSTAT has been produced HICP data from January 2011 and are available on Eurostat website, within section [Data](#).

#### *Time comparability indicator*

Not available.