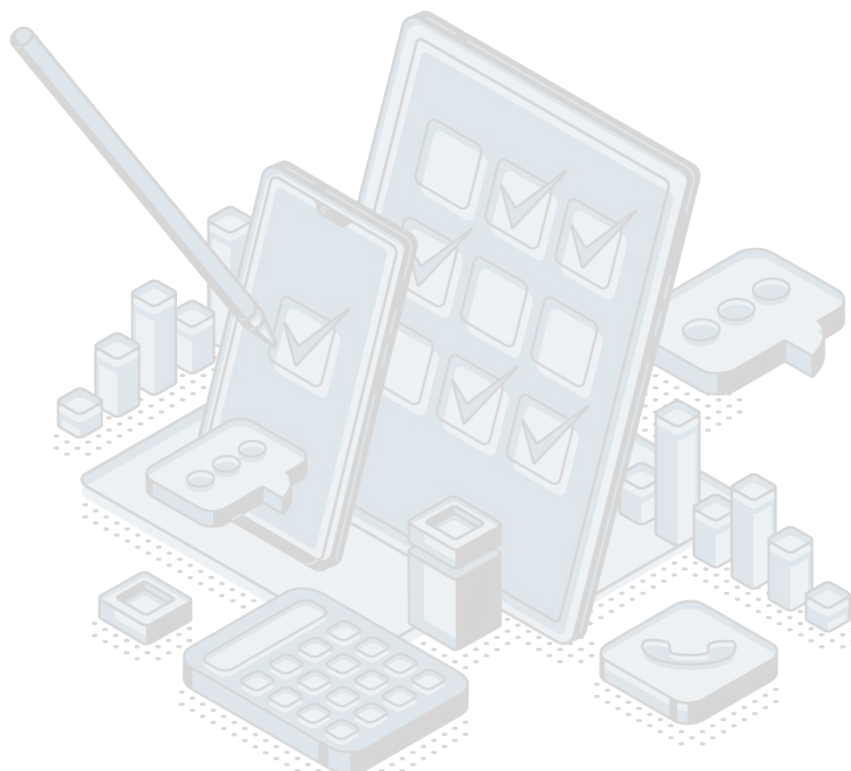


QUALITY REPORT

Quarterly gross domestic product 2022



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1. Introduction – Basic information on survey

1.1 Purpose, goal, and subject of survey

The aim of the compilation of quarterly gross domestic product according to the production and expenditure methods is to obtain the basic macro-economic aggregate in the system of national accounts. By applying those methods for compilation, the establishment of the basic relationship on which the national accounts are based is considered, namely, that the total value of available goods and services (supply) must be equal to the total value of consumed goods and services (use) in the observed period at the level of the total economy.

The purpose of the compilation of Quarterly Gross Domestic Product (QGDP) is to monitor the short-term dynamics of economic activities, that is, to present a general picture of the current economic trend in quarterly dynamics. In this way, a more regular picture of the state of the economy, more detailed information, for both financial and non-financial economic activities, is provided. The compilation of QBDP is carried out according to the production and expenditure methods.

Quarterly national accounts are compiled from a series of macroeconomic indicators, which provide a comprehensive picture of the economic situation and serve as a basis for economic analysis, forecasting and decision-making. The main aggregate of national accounts is gross domestic product. The methodology used is in accordance with the System of national accounts (SNA 2008) and the European system of national accounts (ESA 2010). The GDP compilation includes all activities within the production-defined methodologies of SNA 2008 and ESA 2010 and covers the entire territory of Montenegro.

Quarterly gross domestic product according to the production method is calculated as the sum of added values of all resident institutional units.

Quarterly gross domestic product according to the expenditure method is calculated as the sum of household final consumption expenditure, government final consumption expenditure, gross fixed capital formation, changes in inventories and net exports and imports of goods and services. The results of the compilation are valued at current and constant prices (previous year's prices) and in average prices of 2010. The seasonal adjustment was performed using JDemetra software, by applying the X-13ARIMA-SEATS algorithm. In the general specification, the calendar adjustment and the number of working days were performed. A direct approach to seasonal adjustment has been applied, which means that all time series (including aggregates) are seasonally adjusted individually. After seasonal adjustment, results are obtained for each series and aggregate individually, where the sum of the components is different from the aggregate.

1.2 Legal basis

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.

National accounts are drawn up in accordance with the European System of Accounts (ESA 2010), which is published in the Official Journal of the European Commission as Annex A to Regulation (EU) No 549/2013. The ESA 2010 Data Transmission Programme is covered by Annex B.

ESA 2010 takes the form of regulation and contains:

- ✚ the methodology (Annex A) on common standards, definitions, classifications and accounting rules to be used to draw up accounts and tables on comparable basis;

- ✚ a data transmission programme (Annex B) setting the time limits by which Member States submit accounts and tables to Eurostat;
- ✚ Several separate acts, often related to classifications such as: NACE Rev.2, CPA 2014, COFOG, COICOP, NUTS 2013.

On the Eurostat website you can find several legal acts relevant to the statistics of national accounts in the section "National accounts", link: [Legislation](#)

When preparing and defining the Annual Plan, the Statistical Office adheres to the statistical requirements defined in the Statistical Compendium of the European Commission (link: [Compendium](#))

1.3 Statistical units

All economic units, legal and natural persons and households within the defined production limits in the System of national accounts - SNA 2008 and European system of accounts - ESA 2010 methodologies.

According to the international methodology ESA 2010, national accounts use two types of units and two appropriate ways of observing the economy: (a) the institutional unit; (b) local unit by type of activity (local KAU). The first type is used to describe income, expenses and financial flows, as well as for balance sheets. The second type of units is used to describe production processes as well as input-output analysis.

An institutional unit is an economic entity characterized by the autonomy of decision-making in the activities of its main function. A resident unit shall be deemed to constitute an institutional unit in the economic territory in which it has its centre of predominant economic interest if it has decision-making autonomy and either has a complete set of accounts or is able to compile a complete set of accounts.

Local KAU groups all parts of the institutional unit in its capacity as producers located in one location or in closely located locations, and which contribute to the performance of activities at the level of activity (four digits) NACE Rev. 2. An institutional unit consists of one or more local KAUs; local KAU belongs to one and only one institutional unit.

1.4 Coverage and scope of survey

1.4.1 Sectors

All sectors defined by Classification of activity 2010 are covered except sector U: Activities of extraterritorial organisations and bodies and households.

National accounts describe the overall economy of a country. All units that have their center of predominant economic interest in the economic territory of that country are covered.

In addition, national accounts describe economics and according to several other types of aggregation and deaggregation. The two most important levels of desegregation are according to institutional sectors and by the activities of NACE Rev. 2. For each of the detail items, the exhaustive calculation of national account data is required.

When it comes to the division by institutional sector, ESA 2010 distinguishes five mutually exclusive domestic institutional sectors: (a) non-financial sector, (b) financial sector, (c) general government sector, (d) household sector; (e) non-profit institutions in the service of households. The five sectors together make up the overall domestic economy. Each sector is also divided into subsectors.

As for the division by activity, ESA 2010 applies the NACE Rev.2 classification of activities. Activities can be divided into several levels of detail, for example 3, 10, 21, 38, 64 or 88 activities. Currently, data on national accounts are produced at NACE level A21 as well as at A10 level.

1.4.2 Statistical population

Statistical population of a country's national accounts consists of all resident statistical units (institutional units or local KAUs). A unit is a resident unit of a country when it has a center of predominant economic interest in the economic territory of that country, i.e. when it engages for a longer period (one year or more) in economic activities in that territory. Compilation of national accounts data includes all statistical units, thus ensuring exhaustiveness in the calculation.

1.5 Reference geographical area

The reference area for national accounts is the overall economy of Montenegro. The total economy of a country can be divided into regions. The NUTS classification provides a single, uniform division of the economic territory of EU member states. According to the NUTS classification, Montenegro is one region at all 3 NUTS levels.

1.6 Concepts and definitions

Quarterly GDP represents the market value of all final goods and services produced within a country in a given quarter. QGDP at market prices is the final result of the production activity of resident production units and can be calculated in 3 ways:

- ✚ Production approach,
- ✚ Expenditure approach, and
- ✚ Income approach.

Monstat calculates GDP by production and expenditure approach.

- According to the production approach:

$GDP = \text{the sum of gross value added} + \text{taxes less subsidies on products.}$

Gross value added is the net result of a weighted-output at basic prices minus intermediate consumption valued at purchasers prices. Output consists of the products manufactured during the accounting period. Intermediate consumption includes the value of goods and services used as inputs in the production process, excluding fixed assets whose consumption is recorded as consumption of fixed capital. Taxes less subsidies on products are taxes (paid) less subsidies (received) per unit of product or service provided.

- According to the expenditure approach:

$GDP = \text{final consumption of households} + \text{government final consumption (individual and collective)} + \text{gross fixed capital formation} + \text{changes in inventories} + \text{exports} - \text{imports}$

Final consumption expenditure of households are expenses (including imputed expenditures) of resident households on individual consumption goods and services (e.g. expenditure on food, clothing and footwear, housing, etc.). These expenditures do not include expenditures of households for the purchase of fixed assets (e.g. dwellings or valuables).

Government final consumption expenditure are expenses (including imputed expenditure) of the government sector to the individual and collective consumer services. They are divided into two groups:

- ✚ The value of goods and services produced by the government and which, by convention, the government consumes - collective consumption (for example: services of the courts, defence, security, protection of environment, etc.), and
- ✚ Government expenditures for the purchases of consumer goods and services produced by market producers that are supplied to households, without any transformation, as social transfers in kind - individual consumption (for example medicament taking on receipt according regular health insurance).

Gross investments in fixed assets are measured by the total amount of the producer's acquisition less disposal of new or used fixed assets during the accounting period. Net investments in fixed assets are gross investments in fixed assets less consumption of fixed assets (depreciation).

Changes in inventories are the difference between the level of stocks at the beginning and the end of the year, valued at the average market prices. Inventories can be: materials, work in progress, finished goods, and merchandise goods.

Imports and exports of goods and services consist of transactions of products (purchase/sale, exchange or gift) between resident and non-resident units.

Imports and exports of goods and services do not include:

- ✚ Deliveries of non-resident (foreign) representative offices of resident companies perform to non-residents and deliveries of resident representative offices of non-resident enterprises performs to residents,
- ✚ Flows of primary income to abroad or from abroad (such as compensation of employees, interest or income from direct investment) and
- ✚ Sale and purchase of non-produced assets (eg. land or patents).

External balance of goods and services is the balancing item (balance) of goods and services foreign account. It represents the value of exports of goods and services minus imports of goods and services of rest of the world sector. When the external balance of goods and services in foreign accounts is positive, it means a deficit (deficit) of the national economy in trade of goods and services with foreign countries and vice versa if it is negative, it means a lack for overseas and excess to the national economy.

1.7 Classifications

For the purposes of national accounts according to ESA 2010, the following classifications are used:

- ✚ KD2010 classification of activities that complies with NACE Rev. 2 for economic activities;
- ✚ CPA 2.1 for products by economic activity;
- ✚ COFOG for the functions of the government;
- ✚ COICOP for individual consumption by purpose;
- ✚ NUTS 2013 for regional accounts.

In addition, for the purposes of compilation of GDP aggregates, some additional classifications related to import and export data are used, such as CN - combined nomenclature, HS – harmonized system, as well as the classification of fixed assets defined by ESA 2010.

An overview of classifications is available at:

- ✚ ESA 2010 Chapter 23 Classifications: [Methodology ESA2010](#)
- ✚ Eurostat RAMON database classification: [Ramon base](#)
- ✚ Monstat website: [Classifications](#)

1.8 Frequency of data collection

Quarterly data are collected at the end of the reference period when calculating the preliminary quarter and 9 months after the end of the reference year when calculating the annual GDP.

1.9 Dynamics of data collection

Quarterly data on national accounts are published 4 times a year.

Quarterly data on national accounts for Montenegro are published t+75 days after the end of the reference period. The final quarterly data of the reference year are published according to the published final annual data for that year in September of the current year, i.e. t+9 months. The data are submitted to Eurostat on the same day as they are published at the national level.

In accordance with the defined deadline for the ESA 2010 transmission programme, publication is within the deadline of t+65.

1.10 Methodology

Following methodologies are used in compilation of national accounts data:

- ✚ System of national accounts SNA 2008, link: [Methodology SNA2008](#)
- ✚ European system of accounts ESA 2010, link: [Methodology ESA2010](#)
- ✚ Handbook on price and volume measures in national accounts 2001, link: [Handbook on P&V](#)
- ✚ European system of accounts ESA 2010 – transmission programme of data, link: [Transmission programme ESA2010](#)
- ✚ Manual on the changes between ESA 95 and ESA 2010, link: [Changes between ESA95 and ESA2010](#)
- ✚ Eurostat Manual of Supply, Use and Input-Output Tables, link: [Handbook on SUT](#)

1.11 Base period

GDP in constant prices uses the prices from the previous year so that the base year is the same quarter of the previous year. Chain-linked data is regularly produced for the base year 2010, the production and expenditure approach.

1.12 Unit of measure

In addition to data expressed in current prices, quarterly data of national accounts are also expressed in prices of the previous year and in chain-linked volume measures, as well as seasonally adjusted data, in thousands of EUR. In addition, it is possible to calculate growth rates and indices, and various other units of measure can be applied (e.g. percentages of share, per capita data, data expressed in purchasing power standards).

1.13 Data source

The compilation of national accounts data is based on statistics that are primarily collected for other purposes (primary statistics). It relies on various data sources, including administrative data: accounting financial reports, tax data, budget reports, population census, statistical surveys of enterprises and households, reports of supervisory institutions and organizations, annual and quarterly reports, trade statistics of goods and services, information on balance of payment. Data sources are usually short-term in nature and as such are subject to change over time. Quarterly GDP is calculated and published as preliminary, and revised only once as part of the publication of final annual data.

1.14 Method of data collection

Data collection is very country-specific and also varies according to the nature of the data source, e.g. administrative databases, tax records, administrative registers, surveys, financial statements, etc.

National accounts collect data from multiple sources. Data collection techniques are different, depending on available sources of information, timeliness of data release and other factors.

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 of Montenegro;
- ✚ 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 fulfills 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, link: [User satisfaction report](#)

3. Accuracy and reliability

3.1 Accuracy – overall

The compilation of national accounts is very complex task involving many different data sources. Accuracy and reliability are ensured by the application of methodological instructions according to the methodology of national accounts.

3.2 Sampling error

Not relevant.

3.3 Non-sampling error

Not relevant.

3.4 Seasonal adjustment

The objectives of seasonal adjustment are to identify and remove seasonal fluctuations and calendar effects that can mask short and long-term movements in the time series and deter a clear understanding of the basic phenomena. Seasonal adjustment is, therefore, a basic process in the interpretation of time series for the purpose of creating policies (ESS guidelines for seasonal adjustment, 2015 edition, Annex, point 1).

Seasonal adjustment of the data is performed using the JDemetra software, with the application of the X-13ARIMA-SEATS algorithm. In the general specification, the calendar adjustment and the number of working days were made. A direct approach to seasonal adjustment was applied, which implies that all time series (including aggregates) are adjusted individually. After seasonal adjustment, results are obtained for each series and aggregate individually, where the sum of the components is different from the aggregate.

3.5 Data revision

3.5.1 Data revision policy

Quarterly national accounts data are subject to continuous revision when new inputs become available. These revisions are called routine revisions and imply regular revision of data. Less commonly, non-scheduled revisions (called benchmark revisions) are the result of major changes in data sources, classifications, or methodologies. For example, during the change from ESA95 to ESA 2010, some of the

data were revised. Preliminary data are revised at the time of availability of annual data. The Statistical Office has adopted the revision policy and it is available on the website: [Revision policy](#)

3.5.2 Data revision practice

National Accounts data are subject to revisions in case of changes in international methodologies or if new data sources become available. National Accounts represent a wide range of data on different areas that are integrated into the National Accounts system so that a change in one area will have an impact elsewhere, and therefore the revision of one part of National Accounts can lead to a revision of the data in the entire system of National Accounts. While revisions should be seen as a process for progressively improving the quality of national accounts, e.g. better sources and/or methods are becoming available, the availability of revised information is a key element for understanding national accounts data and revision arising between releases.

After the publication of the annual gross domestic product compilation results, the data of the quarterly gross domestic product are reconciled with the annual data in order to achieve internal compliance.

3.5.3 Data revision - average size

Not available.

4. Timeliness and punctuality

4.1 Timeliness

Data are published in accordance with the Annual Plan of Statistical Surveys and Statistical Release Calendar, 75 days after the end of the reference period (t+75).

Time lag of preliminary results

Preliminary annual GDP data are available 11 weeks after the referent period.

Time lag of final data

Final results are available 9 months after the referent period.

4.2 Punctuality

Good statistical practice requires that the dates on which national accounts data become available are pre-announced and that the pre-announced publication dates are met.

National accounts data should be punctually delivered to Eurostat at the timeliness defined in the ESA 2010 transmission programme (or before).

Quarterly data are published in accordance with the Annual Plan of Statistical Surveys and Statistical Release Calendar in the 75 days after end of the reference quarter.

Annual data are published in accordance with the Annual Plan of Statistical Survey and Statistical Release Calendar in the end of september of current year for previous year, respectively deadline for data transmission by Data transmission programme (t+9).

5. Availability and clarity

5.1 Statistical Release Calendar

The Law on Official Statistics and Official Statistical System („Official Gazette of Montenegro“ No. 18/12 and 47/19) 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 Statistical Release Calendar

The Statistical Release Calendar is available at the following link: [Statistical Release Calendar](#)

5.3 Releases

Releases on quarterly GDP for Montenegro are available at the following link: [Releases](#)

5.4 Publications

Statistical Office publishes the following regular publications:

1. Statistical Yearbook,
2. Montenegro in figures,
3. Monthly statistical review.

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

1. Women and Men in Montenegro,
2. The most often used statistical data.

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

5.5 Online database

To provide easy access to national accounts data, all validated national accounts data are available to users in an online database, link: [Database](#)

Quarterly GDP data in excel form are available in the Data section at the link: [Data in Excel format](#)

5.6 Access to microdata

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 keeps a separate records on users and purpose of using the statistical data given to these users.

5.7 Metadata occupancy

Not available.

6. Comparability

6.1 Spatial comparability

By applying Regulation (EC) No 549/2013 which prescribes the application of ESA 2010 methodology geographical comparability of data between Montenegro and other countries is enabled. Geographical comparison around the world is possible because most non-European countries apply the SNA 2008 guidelines and SNA 2008 is in line with ESA 2010.

In accordance with the Nomenclature of Territorial Units for Statistics (NUTS) and the Data Transmission Programme (ESA 2010), the Statistical office submits data on quarterly and annual GDP to Eurostat at all three levels of NUTS classification. The territory of Montenegro is considered to be a single statistical region.

6.2 Time comparability

As the data for all reference periods are compiled in accordance with the requirements of ESA 2010, the data on national accounts can be fully time-comparable. Also, in the case of fundamental changes in methods, improvement of data sources or the emergence of new data sources, classifications, revisions of long-standing series are carried out, which usually go far back in time in order to form a new complete time-comparable data series.

Using a common framework, the European System of Accounts ESA 2010, data for Montenegro can be compared over time, for the quarterly time series from 2006 onwards. Data are available and comparable with data from other countries from the first quarter of 2006 onwards, in current prices, and from the first quarter of 2007 onwards, in constant prices.

Time comparability indicator

Not available.