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## QUALITY REPORT 2019

### Investments in fixed capital

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## **1. Introduction – Basic information about the survey**

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

The aim of this survey is, except informing on investment activity in the country, to enable the calculation of GDP by expenditure approach, determine the share of gross investment in GDP. Investments in fixed assets are considered to be provisions of business entities to obtain new fixed assets and increase the value or the replacement of existing fixed assets.

### **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 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.

### **1.3 Statistical units**

Reporting units are the business entities in the country that are direct investors, regardless of whether they are in a regular or probable operation in the establishment or liquidation of a natural person.

### **1.4 Coverage and scope of survey**

#### **1.4.1 Sectors**

Units of observation are all business entities in Montenegro that are direct investors (whether they are in regular or probationary work, in setting up or in liquidation) which are registered in sectors from A to S, according to the classification NACE Rev. 2.

#### **1.4.2 Statistical population**

Data on realized and paid investments from legal entities in the country if they are direct investors.

### **1.5 Referent geographical area**

The whole territory of Montenegro.

### **1.6 Concepts and definitions**

Realized investments represent the value of effectively carried out construction, construction or procurement of facilities, equipment and others, regardless of whether they are finished whether their payment has been made (without the revaluation of realized investments). Payment for invitations is a cash investment in fixed assets during the year in which payments are actually made, regardless of the moment of construction or acquisition of fixed assets. Realized investments in new fixed assets relate to the purchase of investment goods that have not yet been the subject of purchase of sales between the direct users of these goods (purchase made directly from the contractor of construction works, equipment manufacturers or fixed assets produced in their own direction. The purchased equipment and equipment is purchased abroad, investments in significant improvements to existing fixed assets, investments in significant land improvements and land transfer costs. The construction of new capacities includes investments in new fixed assets in a new or old location, regardless of the activity for which these investments are intended. The new facilities include: the facility as an economic-technical unit, part of the construction of a facility that represents a separate economic and technical unit, a continuation of construction or equipment suspended investments, investments in cultivated biological resources, construction of new roads, procurement of new machines and equipment and other categories of new fixed assets.

## 1.7 Classifications

NACE Rev2

## 1.8 Frequency of data collection

Annually.

## 1.9 Frequency of data dissemination

Annually.

## 1.10 Methodology

Methodological basis for this survey is available on web site:

<http://monstat.org/userfiles/file/investicije/Metodologija%20-%20Statistika%20investicija%20za%20sajt.pdf>

## 1.11 Base period

Previous year.

## 1.12 Unit of measure

Thousand EUR

## 1.13 Source of data

The survey is based on the reporting method. Data is collected on a randomly stratified sample and stratification is done according to the sectors and by the number of employees. The reporting units that have entered the sample fill in the INV-01 form from the bookkeeping, financial documentation as well as from the investment programs and technical documents. Since various sources of data are used for this report, it is necessary that related data be compared and harmonized with each other. The source of data for individuals is administrative.

## 1.14 Method of collection data

Data are collected through paper questionnaires (by post, email or fax) and by administrative sources.

## 2. Relevance – Data users

### 2.1 User needs

International users:

- UN organizations,
- International institute.

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 fulfills obligations towards users and within the new quality policy, the Statistical Office conducted User satisfaction survey. Data collection was carried out through a web survey, in the period from 1 September to 20 October 2017.

## **3. Accuracy and reliability**

### **3.1 Accuracy – Overall remark**

The survey is based on the reporting method. Data are collected from large and medium-sized legal entities (all legal entities are included), while small ones are selected according to the stratified sample and the stratification is done according to the Classification of Economic Activities 2010 (KD 2010) and by the number of employees. The data obtained is subject to the common types of errors associated with sampling error, error in coverage, measurement, processing, and inaccessible.

### **3.2 Sampling error**

Since the survey does not include all units of a target population but rather a randomly selected sample of units, there are sample errors that may occur in estimations. A variation coefficient is a relative measure (percentage) of the accuracy of an estimate. Along with these measures, a lower and upper limit of a confidence interval is calculated.

#### *Indicators of sampling error*

The coefficient of variation is the relevant measure of sample error and is calculated in the SAS program - proc survey mean.

### **3.3 Non-sampling error**

Non-sampling errors are tied to other errors that are not related to the sample. Non-sampling errors include: Coverage errors, Measurement errors, Processing errors and Non-response errors .

#### **3.3.1 Coverage error**

Coverage error is the divergence between the frame population and the target population. The coverage errors include: over – coverage and under – coverage.

#### *Indicators of coverage error*

Order to eliminate the coverage problem, the sample frame is updated each year and based on the updated framework, a sample for investment survey is created every year.

#### **3.3.2 Error of measurement**

Measurement errors occur during the data collection because of the difference between the recorded and the actual values of the variable. An intermediate analysis is performed by the correction.

#### **3.3.3 Non response error**

Errors due to non-responsive (at the field level or at the level of the questionnaire - unmanaged) are corrected by contacting the person who filled in for the notified unit.

#### *Unresponsive unit rate (A3)*

The unit non response rate is calculated as the ratio of the number of units which did not responded to the total number of eligible units (unweight rate). Average unit non response rate in 2019 was about 37,7%.

### *Nonresponse rate*

The item non response rate is calculated as the ratio of the eligible units which have not responded to a particular item and the in-scope units that are required to respond to that particular item. Average item non response rate in 2019 was about 10.3%.

### **3.3.4 Error processing the data**

Collected data pass through a range of processes before the final compilation (estimates, etc.) are produced: coding, keying, editing, imputing, weighting, tabulating, etc. Errors introduced at these stages are called processing errors.

### **3.4 Seasonal adjustment**

Not relevant.

### **3.5 Data revision**

#### **3.5.1 Data revision policy**

Statistical Office has adopted the revision policy and it is available on the website <http://www.monstat.org/userfiles/file/o%20nama/2017/Revision%20policy.pdf>

#### **3.5.2 Data revision practice**

Survey of investments in fixed assets uses regular revisions. Large and unplanned revisions are only used in the specific cases defined by the revision policy.

#### **3.5.3 Data revision - average size**

Not available

## **4 Timeliness and punctuality**

### **4.1 Timeliness**

The data are published 210 days after the end of the reference period.

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

The number of days (or weeks or months) from the last day of the reference period to the day of publication of first results:

$$T1 = dfrst - dref,$$

$$T1 = 208 \text{ days}$$

dfrst - release date of first results

dref - last day (date) of the reference period of the statistics.

Deadlines for publication investment fixed assets data during 2019 are published according to the Release Calendar. The Release

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

The timing of the release of the final data represents the time between the date of the last day of the reference period and the date of publication of the final data.

## 4.2 Punctuality

Accuracy indicator represents the time difference between Actual date of the effective provision of the statistics and Scheduled date of the effective provision of the statistics.  $P3 = dact - dsch$  In survey on investment, punctuality = 0, which means that we have met the calendar: not earlier and not later published.

## 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 the data Release Calendar

<http://www.monstat.org/userfiles/file/o%20nama/2019/Kalendar2019MonstatENG.pdf>

### 5.3 Releases

Investments in fixed assets: <http://monstat.org/eng/page.php?id=511&pageid=94>

### 5.4 Publication

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 additionally 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 publication published by Statistical Office are available at the following link: <http://monstat.org/eng/publikacije.php>

### 5.5 On-line databas

<http://monstat.org/eng/pxweb.php>

### 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 occupancy

The ratio of the number of metadata elements provided to the total number of metadata elements applicable. For these survey, the metadata fill rate is 100%.

## **6. Comparability**

### **6.1 Spatial comparability**

The methodology is comparable to international statistical standards, with the European System of Accounts (ESA2010) and the National Accounts System (SNA2008).

### **6.2 Time comparability**

Data are available from 2009 according to the Classification of Activities of NACE Rev. 2. 2 at the sector level.

Time comparability indicator

Length of comparable time series indicator is calculated as follows:  $CC1 = J_{last} - J_{first} + 1$   $J_{last}$  - number of the last reference period with disseminated statistics.  $J_{first}$  - number of the first reference period with comparable statistics. Length of comparable time series is 7 years.