



**STATISTICAL OFFICE OF  
MONTENEGRO**

## **METHODOLOGICAL GUIDELINES**

**PRICE OF DWELLINGS IN NEW RESIDENTIAL BUILDINGS**

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## **Legal basis**

The legal basis for the implementation of the survey on price of dwellings in new residential buildings is the Law on Official Statistics and Official Statistical System of Montenegro ("Official Gazette of Montenegro", No. 18/12 and 47/19) and Annual plan of statistical surveys.

## **METHODOLOGICAL GUIDELINES**

### **The aim of statistical survey**

The aim of survey on price of dwellings in new residential buildings is to collect the data necessary for the calculation of average price per square meter of dwelling in new building, that refer to dwellings sold in residential buildings at the territory of Montenegro, accordingly to concluded sale contract with investor, and that produces contractual obligation.

An average price per square meter of dwelling in new residential building includes dwellings sold by enterprises as well as dwellings sold by solidarity residential construction.

### **Sources and methods of data collection**

The sources of data for the compiling of survey is the purchase contract that products the obligation relations. If the contract does not contain the information about the elements of prices, shall be used the other available documentation.

Method of data collection is reporting method.

The data are collected through quarterly survey on price of dwellings in new residential buildings (GRAD-41).

Reporting units received the questionnaire and instruction from the competent statistical services.

### **Observation units**

The observation unit is a contracted price of usable area of sold dwelling in new residential building in the residential, mainly residential and non-residential building. The exceptions are the dwellings which are constructed for own use.

Reporting units are the enterprises which are sell the dwellings.

The address book of reporting units on prices of dwellings in new residential buildings are:

- enterprises which are registered in sector F – construction (area 41, 42, 43) according to the classification NACE Rev.2 and
- enterprises (KAU) which are not registered in sector F, but whose local units perform the construction works.

### Coverage of survey

The prices of dwellings in new residential building, as a subject of this survey, have to covered sold new dwellings (in the residential, mainly residential and non-residential buildings) on the territory of Montenegro for which is concluded a contract of sales and which produces an obligation relations, i.e. dwellings for which a contract of sale has been concluded between investor and buyer (for the first time sold dwelling).

For data collecting it is important to mention that are include only dwellings which satisfy the definition of price. It means that it does not include: price of dwellings which was subsequently established that it is sold during the period of previous quarter by which were not covered, prices based on the annex to the contract that are defined during the construction with mechanism of the sliding scale and etc.

The subject of observation are not existing (old) dwellings.

The average price per the square meter of dwelling in a new residential building is published according to the following territorial categories:

Montenegro;

- The capital city of Podgorica;
- Coastal region: Bar, Budva, Herceg Novi, Kotor, Tivat and Ulcinj;
- Central region: Cetinje, Danilovgrad, Nikšić and Tuzi;
- Northern region: Andrijevica, Berane, Bijelo Polje, Gusinje, Kolašin, Mojkovac, Petnjica, Plav, Pljevlja, Plužine, Rožaje, Šavnik and Žabljak.

The performance of average prices is done according to the weighting environment as a special form of arithmetic mean. It is used when one value has greater importance or greater weight than the other or only a higher frequency.

The weighting environment is obtained as a ratio of multiplication sum of individual prices of dwellings with the corresponding area to which the price refers to and the sum of the areas of these dwellings in that territory.

The average prices are calculated according to the general term:

$$\bar{C} = \frac{\sum C * Q}{\sum Q}$$

where *C* is the mark for the average price, and *Q* is the area to which the average refers.

An example for calculation of the average price of dwellings in new residential building:

#### AVERAGE PRICES OF DWELLINGS IN NEW RESIDENTIAL BUILDINGS

$$= \frac{\text{Dwelling price}_1 * \text{area m}^2 \text{ of the dwelling}_1 + \dots + \text{Dwelling price}_n * \text{area m}^2 \text{ of the dwelling}_n}{\Sigma \text{ of all areas}}$$

The average price per the square meter of dwelling in a new residential building is published according to the following categories:

Montenegro (average price)

- Enterprises (*average market price*)
- Solidarity housing development includes the sale of dwellings by housing cooperatives and organizations in cooperation with local self governments (municipalities) or other institutions, under more favorable conditions. Construction is done for the state institutions needs, organization and enterprises i.e. employed in these institutions in all municipalities of Montenegro.

The average price of dwellings in new residential building includes dwellings sold by enterprises, as well as dwellings sold by solidarity housing development institution. The average market price of dwellings in new residential building includes dwellings sold by enterprises, but not including dwellings sold by solidarity housing development institution.

The average prices of dwellings in a new residential building significantly depend on the involvement of solidarity housing development dwellings. If the share of these dwellings increased, the average price of dwellings in a new residential building will be significantly lower, or if this share decreased, the average price will be higher.

Data in a population that deviates from the usual values is considered to be an extreme value (outlier). An analysis of the problem of extreme values is very important. The quality of the time series depends on it, because the appearance of extreme values (outlier) can lead to unreliable and often incorrect conclusions about of the observed phenomena.

For the elimination of extreme values, a normal distribution of the price of dwellings in a new residential buildings is used. For this distribution, a rule of plus-minus of two standard deviations from the arithmetic mean ( $\pm 2\sigma$ ) was used.

### **Definitions of main indicators**

*The contracted price* was determined on the basis of executed contract of sale between the seller and the flat end customer, regardless of whether the dwelling was started, completed or under construction.

The price includes the following elements:

- The price for arranging construction land includes the following elements: purchase of land (recording and appraisal of facilities, purchase and compensation to owners, court costs, etc.), demolition, the displacement of the occupants, preparation of detailed urban plans and projects, the field testing, the works on recovery, the works for environmental protection and protection of cultural monuments, arrangement of the area around the building, utility equipping of land which include the costs for constructing a primary and secondary network for electricity, water, sewer, phone and etc.
- The price of construction works includes all construction works and profits of investors per 1 m<sup>2</sup> of floor space, craft-finishing and installation works on buildings and dwellings.
- Other costs include all construction costs such as contributions and taxes for connections to the electricity grid and other communal facilities, taxes for obtaining

building permits, VAT, the cost of projecting the building, the interest on the loans and advances and etc.

Cost of housing construction in this sense can not be considered a so-called price, phase of construction (building and selling dwellings user, no part of the craft and finishing works) and price adaptation or reconstruction of dwellings already used. If it comes to upgrading or building entire floors to the existing building, such works are considered new construction and their price includes research.

Also, in terms of price, do not matter the type of material making up the dwelling (eg, prefabricated wooden houses), if the dwelling is such that it satisfies the definition and is capable of long-term (several decades) housing.

### **Harmonization with EU regulations and recommendations**

The survey of prices of dwellings in new residential buildings are harmonized with the regulation of European Union No. 1165/98, Classification of activities NACE Rev.2 and Classification of Types of Construction – CC 1997.

### **Confidentiality**

Data obtained from reporting units represent an official secret and used only for statistical purposes and cannot be published or made available to any user. The results of the survey are published at the aggregated level and the privacy of the individual data is completely ensured.

### **Organisation of survey**

In accordance with the Plan and Program of Statistical Surveys, the organization of the survey refers to preparation of questionnaires and instructions to the reporting units, collection, processing and dissemination of data.

### **Dissemination**

Price of dwelling in new residential buildings are published according to Statistical Release Calendar in Quarterly release of dwellings in new residential buildings, Statistical Yearbook and in the publication “Montenegro in the Figures” on web site of Statistical Office of Montenegro.

### **Revision of data**

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>.

This survey uses regular revisions. Large and unplanned audits are only used in the specific cases defined by the revision policy.