



METHODOLOGICAL EXPLANATION

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INDICES OF THE VALUE OF CONSTRUCTION PUT IN PLACE

This methodological explanation relates to the data releases:

Indices of the value of construction put in place, Slovenia, monthly (First Release)



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Content

1	PURPOSE	3
2	LEGAL BASIS.....	3
3	UNIT DESCRIBED BY THE PUBLISHED DATA.....	3
4	SELECTION OF OBSERVATION UNIT	3
5	SOURCES AND METHODS OF DATA COLLECTION	4
6	DEFINITIONS.....	4
7	EXPLANATIONS	5
8	PUBLISHIN-G.....	8
9	REVISION OF THE DATA	8
10	OTHER METHODOLOGICAL MATERIALS	9

1 PURPOSE

The purpose of publishing data on construction put in place is to show monthly changes in construction activity in Slovenia.

Key statistics of the monthly survey on construction are:

- Indices of the value of construction put in place
- Indices of the value of construction put in place for buildings
- Indices of the value of construction put in place for civil engineering works

2 LEGAL BASIS

- [Annual Programme of Statistical Surveys \(LPSR\)](#) (only in Slovene)
- [National Statistics Act](#) (OJ RS, No. 45/95 and 9/01)
- Council Regulation 1165/98 concerning short-term statistics (CELEX: 31998R1165)

Data are internationally comparable and contribute to European statistics.

3 UNIT DESCRIBED BY THE PUBLISHED DATA

Units described by the published data are buildings and civil engineering works. For the classifications of constructions into buildings and civil engineering works, we use the Classification of Types of Constructions adopted with the Decree on the Classification of Types of Constructions and Constructions of National Importance (OJ RS No. 109/2011).

4 SELECTION OF OBSERVATION UNIT

Observation units are construction companies (sector F according to NACE Rev. 2) as well as their units engaged in construction and some non-construction companies performing construction work. The GRAD/M survey includes approximately 400 units.

Observation units are selected for the GRAD/M survey based on the threshold. In this way we determine a sufficient number of units that are included in the survey in an individual year. They are selected on the basis of the value of turnover for determining the value added tax and distributed in descending order of turnover, so that as many units are selected from the beginning of the list that their turnover exceeds the selected share (around 56%) of the total turnover of all units.

5 SOURCES AND METHODS OF DATA COLLECTION

Data are collected monthly.

Data are collected with the Survey on Construction and New Orders (GRAD/M). Observation units are registered in the e-STAT application (a web application for electronic reporting of data to the Statistical Office of the Republic of Slovenia) and fill in the GRAD/M questionnaire on the website. They must complete it with data for the previous month and send it to the Statistical Office of the Republic of Slovenia not later than the 20th day of the current month.

Data for the survey are not obtained from administrative sources.

6 DEFINITIONS

Value of construction put in place covers the value of the following construction works:

- Organisation of the execution of building projects, i.e. services of collecting financial, technical and other material means for the construction of residential and non-residential buildings to be sold afterwards
- Special and specialised construction
- Installations in construction
- Finishing construction works
- Inbuilt material and equipment (builders' joinery, installation equipment, etc.)

Value of construction put in place is given at current prices, without value added tax, in EUR (in whole figures without cents). It does not cover the costs of purchasing the land, moving costs and costs of rents for the time of replacement construction, project services, and costs of interior design.

Value of stock of contracts and other orders covers the value of contracts (excluding VAT) concluded yet still not realised, irrespective of when they were concluded, as of the last day of the observation period.

Value of new contracts covers the value of contracts and other orders concluded by reporting units in the reference period. Reporting units are only enterprises and their units that are registered in one of the following groups according to the Standard Classification of Activities (SKD 2008): 41.200, 42.110, 42.120, 42.130, 42.210, 42.220, 42.910, 42.990, 43.110, 43.120, 43.130, 43.910, 43.990. Values are shown without VAT, discounts at the moment of order and subsidies.

Construction includes the value of construction put in place for buildings and civil engineering works made from construction products and natural material, including built-in installations and technological equipment.

Buildings are structures with one or more rooms into which people can enter and are intended for residence or for performing activities.

A **residential building** is a building in which at least half of the useful floor space is used for residential purposes. If less than half of the useful floor space is used for residential purposes, the building is classified as a non-residential building by the predominant purpose for which it was designed.

A **non-residential building** is a building in which more than half of the useful floor space is used for performing activities. If at least half of the useful floor space is used for residential purposes, the building is classified as a residential building.

Civil engineering works are constructions intended for satisfying material and spiritual needs and interests of people other than residence or performing activities in buildings.

7 EXPLANATIONS

7.1 CLASSIFICATIONS

Data are published based on the Classification of Types of Constructions CC-SI, which is the Slovene version of the European Classification of Types of Constructions (CC). CC-SI is published on the SURS website (Other Classification):

<http://www.stat.si/StatWeb/en/Methods/Classifications>

7.2 DATA PROCESSING

STATISTICAL DATA EDITING

Data were statistically edited with the combination of systematic corrections and imputation procedures. The following imputation methods were used: the historical data method with adjustments for the increase of donor, the method of logical inputs, the structural method, by taking into account the share in the historic data and the internal donor method for several variables.

For more, see the general methodological explanations [Statistical data editing](#).

WEIGHTING

For calculating the total construction index, construction values added are used as weights. The weights for construction put in place for buildings and for construction put in place for civil engineering works are appropriately calculated from the value added. Since 2013 for every reference year new weights have been calculated.

SEASONAL ADJUSTMENT OF TIME SERIES

Ten time series are seasonally adjusted, all of them directly. For nine directly seasonally adjusted series the seasonal and calendar effects are characteristic and for one they are not. For none of the directly seasonally adjusted series calendar effects are characteristic.

For seasonal adjustment of time series we use the TRAMO/SEATS method. A time series model is set up, which is revised in detail and corrected about once a year. Using the model the time series is decomposed into:

- the trend-cycle component (which consists of the trend and cyclical movements over a period longer than one year),
- the seasonal component (which consists of the seasonal effects and the calendar effects; the calendar effects are composed of the working day effect, the leap-year effect, the holiday effect and the Easter effect),
- the irregular component (which consists of random fluctuations and some outliers).

Seasonally adjusted data are original data from which the seasonal and calendar effects are eliminated.

For more, see the general methodological explanations [Seasonal adjustment of time series](#).

7.3 INDICES

Calculation of the indices published in the First Release:

Indices of construction put in place 'on the previous month', which are seasonally adjusted (I_MON_{t,SA}), are calculated by the following formula:

$$I_MON_{t,SA} = \frac{I_BAZ_{t,SA}}{I_BAZ_{t-1,SA}} * 100$$

Indices of construction put in place 'on the same month of the previous year', which are working day adjusted, are calculated by the following formula:

$$I_YEAR_{t,YCal} = \frac{I_BAZ_{t,YCal}}{I_BAZ_{t-12,YCal}} * 100$$

Whereby:

- t month
- t-1 previous month
- t-12 the same month of the previous year

I_YEARt,YCal	index of construction put in place 'on the same month of the previous year', data are working day adjusted
I_MONt,SA	index of construction put in place 'on the previous month', data are seasonally adjusted
I_BAZt, YCal	index of construction put in place 'average of base year', data are working day adjusted
I_BAZt, SA	index of construction put in place 'average of base year', data are seasonally adjusted

7.4 PRECISION

In statistical surveys different kinds of errors can occur (e.g. sampling error, nonresponse error, measurement error) influencing the reliability and accuracy of the statistical results. Errors deriving from the random mechanisms determine the precision and consequently the reliability of the statistical estimates. The precision of the statistical estimate is estimated by calculating the standard error (SE). The Statistical Office of the Republic of Slovenia draws attention to less reliable estimates by flagging them with a special sign.

If the table contains estimated indices, publishing limitations are determined by the standard errors of the estimates (SE) of the indices. In such cases it holds:
If the standard error (SE) of the estimate of a proportion is

- 10 or below ($SE \leq 10$) the estimate is reliable enough and is published without limitations;
- between 10 and up to 30 ($10 < SE \leq 30$) the estimate is less reliable and is flagged for caution with letter M;
- over 30 ($SE > 30$), the estimate is too unreliable to be published and therefore suppressed for use by letter N.

If the table contains an estimated number of units with certain characteristics or estimated proportions of units with a certain characteristic (expressed with values between 0 and 1), publishing limitations are determined by the standard errors of the estimates (SE) of the proportions. In such cases it holds:
If the standard error (SE) of the estimate of a proportion is

- 0.05 or below ($SE \leq 0.05$) the estimate is reliable enough and is published without limitations;
- between 0.05 and up to 0.15 ($0.05 < SE \leq 0.15$) the estimate is less reliable and is flagged for caution with letter M;
- over 0.15 ($SE > 0.15$), the estimate is too unreliable to be published and therefore suppressed for use by letter N.

For more, see the general methodological explanations [Precision of statistical estimates](#).

8 PUBLISHING

- SiStat Database: [Economy](#) – Construction – Monthly data on construction:
 - [Indices of value of construction put in place and contracts](#)
 - [Shares of value of construction put in place and contracts](#)

Data are published according to the Classification of Types of Construction (CC-SI).

- First Release (Construction, Construction works and costs): »Indices of the value of construction put in place, Slovenia, monthly«.
- Eurostat.

9 REVISION OF THE DATA

9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Data for the last 3 months are provisional. With each release the data for the last 3 months can be corrected and supplemented with new data.

Publishing of provisional and final data is planned. Due to the needs of users for timely information, provisional data are published that meet the criteria of the quality of official statistical data but do not meet the quality that can be met with complete coverage. Data are revised when recent, more complete and better data can significantly contribute to the quality of data-based decision-making.

9.2 FACTORS INFLUENCING COMPARABILITY OVER TIME

From 2009 on indices are calculated and published according to the SKD 2008, while indices for the period before 2009 were calculated according to the 2002 version of the SKD. In 2009 all series from 2000 on were recalculated into the new classification of activities. The introduction of the classification of activities has influenced only the monitoring of the observed activities which have not been monitored so far, namely:

- the organisation of the execution of buildings projects,
- the assembly and installation (of wooden houses, plastic and metal buildings of own making on site),
- repair and maintenance of elevators and escalators in buildings,
- installation of metal builders' joinery of own making.

Methodological explanation on revision of statistical data is available on <https://www.stat.si/dokument/5299/RevisionOfStatisticalDataMEgeneral.pdf>.

10 OTHER METHODOLOGICAL MATERIALS

Methodological materials on SURS's website are available at <https://www.stat.si/statweb/en/Methods/QuestionnairesMethodologicalExplanationsQualityReports>.

- Questionnaire (only in Slovene):
 - Gradbena dejavnost in nova naročila (GRAD/M),
 - Quality report for the survey:
 - Construction activity and new orders (GRAD/M).