



## METHODOLOGICAL EXPLANATION

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# CONSUMER SURVEY

This methodological explanation relates to the data releases:

Consumer survey, Slovenia, monthly (First Release)



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## 1 PURPOSE

The purpose of publishing the data on Consumer Survey (MP) is to get monthly information about past, current and future state of the economy and households.

Published key statistic is **Consumer confidence indicator**.

## 2 LEGAL FRAMEWORK

- [Annual Programme of Statistical Surveys \(LPSR\) \(only in Slovene\)](#)
- [National Statistics Act \(OJ RS, No. 45/95 and 9/01\)](#)
- Legal basis for the Survey: [“Joint Harmonised EU Programme of Business and Consumer Surveys”](#)

The business surveys are co-financed by the European Commission. However, the European Commission accepts no responsibility or liability whatsoever with regard to the material published in this document.

## 3 UNIT DESCRIBED BY THE PUBLISHED DATA

The unit described by the published data is the opinion of Slovenes (aged 16 to 84) about the households and country's economic situation.

## 4 SELECTION OF OBSERVATION UNIT

The observation unit is a resident of Slovenia aged from 16 to including 84 years old living in a private household. Only selected persons answer the questions.

The sample is stratified systematic. Strata are defined by statistical region (12 regions) and type of settlement within the statistical region (5 types). Each stratum is sampled independently. The number of persons in each stratum is in principle proportional to the percentage of persons aged 16 years or more living in the area of statistical region and in the type of settlement. Their number slightly changes depending on the level of interviewing rates in the stratum in the past quarters.

The monthly sample size is 3,000 persons, who are invited to complete an online questionnaire. Those who do not complete the online questionnaire are interviewed via telephone. For this reason, we match the sample with the telephone directory. Persons that were selected in the sample are excluded from the sampling frame for the next twelve months.

## 5 SOURCES AND METHODS OF DATA COLLECTION

Data are collected monthly.

In the Consumer Survey persons are selected from the Central Population Register (CRP). The survey is conducted every month, usually from the 1st to the 15th day of the month. The data are collected with the Consumer Survey questionnaire. In 2016 a combined method of data collection was introduced, namely a combination of an online questionnaire (WEB) and a telephone interview (CATI). The web questionnaire is accessible throughout the period, while the telephone interviewing of those who did not complete the online questionnaire usually takes place in the second week of the month. The participation in the survey is voluntary. Persons selected to participate in the survey are informed of our intention by an advance letter.

Data for the survey are not obtained from administrative sources.

## 6 DEFINITIONS

The results are shown as the **balance** by individual questions. The balance is the difference between the share of positive and negative answers.

The **consumer confidence indicator** is the average of balances, calculated from answers to the questions about the current household financial situation, the expected household financial situation, the expected general economic situation in the country and the expectations for major purchases.

The **long-term average** is the average of balances from the beginning of the time series to December of the previous year.

## 7 EXPLANATIONS

### 7.1 CLASSIFICATIONS

Classifications are not used.

### 7.2 DATA PROCESSING

#### DATA EDITING

Data were edited with the combination of systematic corrections, individual corrections and imputation procedures. The following imputation methods were used: logical imputations and hot-deck imputations.

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

## **WEIGHTING**

With weighting adjustment we want to achieve representativeness of the sample, so that the weighted data give us as good population estimates as possible. The process of weighting depends on the sampling design, the unit non-response rate and available auxiliary variables used for calibration. The final weight is the product of the sampling weight, the non-response weight and the calibration factor.

## **SEASONAL ADJUSTMENT**

We seasonally adjust 16 time series - 12 monthly questions, 3 quarterly questions and the consumer confidence indicator. Monthly and quarterly questions are seasonally adjusted directly, while the confidence indicator is adjusted indirectly. 6 directly seasonally adjusted time series are characterized by seasonal and calendar effects:

- Financial situation of your household over the last 12 months
- Financial situation of the household over the next 12 months
- General economic situation in Slovenia over the past 12 months
- Unemployment over the next 12 months
- Major purchases over the next 12 months
- Financial situation in the household at present

For seasonal adjustment of time series we use the TRAMO/SEATS method. A time series model is set up, and it is revised in detail and corrected about once a year. By 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](#).

## **DATA PROCESSING OTHER**

### **CALCULATION OF BALANCES IN THE CONSUMER SURVEY**

Respondents should respond by selecting one of the given answers which are arranged from the most positive (PP), positive (P), neutral (N), negative (M) to

the most negative (MM). The balances are calculated on the basis of weighted averages according to the formula:

$$B = (PP + \frac{1}{2}P) - (\frac{1}{2}M + MM).$$

### *Example*

The respondents are asked: How do you expect the financial position of your household to change over the next 12 months? We get the following answers:

- 15% of the respondents answer that it will get a lot better
- 10% of the respondents answer that it will get a little better
- 25% of the respondents answer that it will stay the same
- 30% of the respondents answer that it will get a little worse
- 20% of the respondents answer that it will get a lot worse

Consumers who answered that the financial position will stay the same have no effect on the result. The balance is calculated from the other shares,  $B = (15 + \frac{1}{2} \cdot 10) - (\frac{1}{2} \cdot 30 + 20)$ . The result (-15) shows the strength and direction of the phenomenon.

For the majority of indicators there is a rule: the higher the value the better the balance.

This is not the case for the following three indicators:

- prices trend over the past 12 months,
- prices trend over the next 12 months,
- unemployment over the next 12 months.

For these three indicators there is an opposite rule: the higher the value the worse the balance.

## **7.3 INDICES**

Indices are not published.

## **7.4 PRECISION**

In statistical surveys different kinds of errors can occur (e.g. sampling error, non-response 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 proportions of units with a certain characteristic (expressed in percentages), 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](#).

## 7.5 OTHER EXPLANATIONS

Some totals do not add up due to rounding.

Data that are statistically protected to respect the confidentiality of reporting units are replaced with the letter »z«.

## 8 PUBLISHING

- SiStat Database: [Quality of life](#) - Consumer Survey; the results are shown as the balance by individual questions for sector and total.
- First Release (Quality of Life, Consumer Opinion): »Consumer survey, Slovenia, monthly«.
- [European Commission \(EC\)](#)

## 9 REVISION OF THE DATA

### 9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Provisional data are not disseminated. Only final data are published.

### 9.2 FACTORS INFLUENCING COMPARABILITY OVER TIME

A combined method of data collection was implemented in January 2016, namely a combination of an online questionnaire and a telephone interview. Until then the data were collected only via a telephone interview. The data collection method, also according to other studies, can influence the expressed opinion.

Due to the changed method of data collection in 2016, level shifts occurred in three time series. These time series (questions 6, 9 and 11) have been recalculated and were published for the first time in January 2021.

Methodological explanation on revision of statistical data is available on <http://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:
  - Mnenje potrošnikov (MP)

Theme: Quality of Life, Subtheme: Consumer Opinion

- Annual quality report for the survey:
  - Consumer Survey (MP)

Theme: Quality of Life, Subtheme: Consumer Opinion.