



# METHODOLOGICAL EXPLANATION

## BUSINESS TENDENCY AND CONSUMER SURVEYS

***This methodological explanation relates to the data releases:***

- Sentiment indicator, Slovenia, monthly (First Release)
- Business tendency, Slovenia, monthly (First Release)
- Consumer survey, Slovenia, monthly (First Release)

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Last updated: 27 November 2018

## 1 PURPOSE

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

Published key statistics are:

- Sentiment indicator
- Confidence indicator in manufacturing, retail trade, construction and services
- Consumer confidence indicator

## 2 LEGAL BASIS

- [Annual Programme of Statistical Surveys \(LPSR\)](#) (only in Slovene)
- [National Statistics Act](#) (OJ RS, No. 45/95 and 9/01)

Data are internationally comparable and contribute to European statistics.

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

### BUSINESS TENDENCY

The published data describe the situation and expectation of main economic indicators. The data are published according to the Standard Classification of Activities (Slovene version of NACE Rev. 2) and individual economic indicators.

### CONSUMER SURVEY

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

### BUSINESS TENDENCY

The observation units are enterprises registered according to the Standard Classification of Activities (SKD 2008):

Business Tendency	SKD 2008
Manufacturing	C Manufacturing (from 10 to 33)
Retail trade	G Wholesale and retail trade; repair of motor vehicles and motorcycles (45, 47 except 46 wholesale trade)
Construction	F Construction (41, 42, 43)
Services	H Transportation and storage (49, 50, 51, 52, 53)
	I Accommodation and food services activities (55, 56)
	J Information and communication (58, 59, 60, 61, 62, 63)
	K Financial and insurance activities (64, 65, 66)
	L Real estate activities (68)
	M Professional, scientific and technical activities (69, 70, 71, 72, 73, 74, 75)
	N Administrative and support service activities (77, 78, 79, 80, 81, 82)
	R Arts, entertainment and recreation (92, 93)
S Other service activities (95, 96)	

In the survey we observe the statistical activity which is for statistical purposes in the Statistical Business Register determined for an enterprise as its main activity and can in some cases differ from the registered activity determined in the Business Register of Slovenia (PRS), kept by the Agency for Public Legal Records and Related Services (AJPES). The statistical activity is determined for the major units whose main activity based on existing statistical data differs from the registered main activity.

In construction, retail trade and services the panel includes all large and medium-sized enterprises and a share of small enterprises, while in manufacturing all large and a share of medium-sized and small enterprises are included. The sample of enterprises is selected on the basis of threshold by two criteria:

- the size of the enterprise (the number of employees in accordance with the Companies Act; in retail trade according to turnover) and
- the classification of the enterprise by main activity.

The size of the enterprise depending on the number of employees:

- a small enterprise has up to and including 50 employees,
- a medium-sized enterprise has more than 50 and up to and including 250 employees,
- a large enterprise has more than 250 employees.

Threshold in manufacturing:

- at least 20 employees for individual entrepreneurs,
- at least 10 employees for other enterprises.

Threshold in retail trade:

- for entrepreneurs: turnover of at least EUR 124,500.00 or at least 10 employees,
- for other enterprises: turnover of at least EUR 124,500.00 or at least 5 employees.

Threshold in construction:

- at least 10 employees, without individual entrepreneurs.

Threshold in services:

- in groups 50, 51, 52, 55, 56, 62, 63, 66, 68, 69, 70, 71, 73, 74, 77, 78, 79, 81, 80, 82, 95 at least 5 employees, in other groups of activity at least 10 employees.

There are around 3,000 units in the survey.

### **CONSUMER SURVEY**

The sample is stratified systematic. Strata are defined by statistical region (12 regions) and type of settlement within the statistical region (6 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**

### **BUSINESS TENDENCY**

Observation units which are already registered in the eSTAT web application fill in the questionnaire on the website; other observation units are called from the CATI (computer-assisted telephone interviewing) studio. Reporting units send questionnaires to the Statistical Office by 10<sup>th</sup> of the current month with the data for the current month. Persons responding to the monthly questionnaire are managers of enterprises or other executives. They respond between the 1<sup>st</sup> and the 15<sup>th</sup> in the month.

Enterprises participating in the business surveys monthly get survey results for the activity in which they are classified, but only if they respond in the current month.

## CONSUMER SURVEY

In the Consumer Survey persons are selected from the Central Population Register (CRP).

The survey is conducted every month, usually from the 1<sup>st</sup> to the 15<sup>th</sup> 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 and a leaflet.

## 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.

**Sentiment indicator** is a weighted indicator of the confidence indicators in manufacturing (40%), services (30%), consumer confidence indicator (20%), retail trade (5%) and construction (5%).

The **confidence indicator in manufacturing** is the average of balances to the questions on production expectation, assessment of overall order books and assessment of stocks of finished products.

The **confidence indicator in retail trade** is the average of balances to the questions on sales, expected sales and the present volume of stock.

The **confidence indicator in construction** is the average of balances to the questions on order-books assessments and employment expectations.

The **confidence indicator in services** is the average of balances to the questions on business situation, demand and expected demand.

The **consumer confidence indicator** is the average of balances, calculated from answers to the questions about the expected household financial situation, the expected general economic situation in the country, the question about expected unemployment and the question about savings over the next 12 months.

**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**

The Standard Classification of Activities (SKD) 2008 <http://www.stat.si/doc/pub/skd.pdf> is the national version of the European statistical classification of economic activities NACE Rev. 2 <http://ec.europa.eu/eurostat/documents/3859598/5902521/KS-RA-07-015-EN.PDF/dd5443f5-b886-40e4-920d-9df03590ff91?version=1.0>, which includes all activities of the European classification and at the same time adds some national subclasses.

### **7.2 DATA PROCESSING**

#### **WEIGHTING**

With weighting adjustment, we want to achieve representatives 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 nonresponse rate and available auxiliary variables used for calibration.

The final weight is the product of the sampling weight, the nonresponse weight and the calibration factor.

#### **STATISTICAL DATA EDITING**

##### **BUSINESS TENDENCY**

For Business Tendency data statistical data editing is not used.

##### **CONSUMER SURVEY**

Data were statistically edited with the combination of systematic 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](#).

##### **SEASONAL ADJUSTMENT OF TIME SERIES**

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 OTHER EXPLANATIONS

Some totals do not add up due to rounding.

Letter »z« is used if the data are suppressed to protect the reporting unit. The data that are suppressed for confidentiality reasons are not published but replaced with letter "z".

#### **CALCULATION OF BALANCES IN BUSINESS TENDENCY**

##### Example

The respondents are asked: Do you think that your current business situation is... We get the following answers:

- 35% of respondents assess their business situation as good,
- 40% of respondents assess their business situation as satisfactory,
- 25% of respondents assess their business situation as bad.

The enterprises that assessed their situation as satisfactory are considered to be »neutral« and do not affect the result of the business situation appraisal. The two remaining percentage values (35-25) are now balanced. The resulting value of 10 is the assessment of the business situation.

#### **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.

## 8 PUBLISHING

Data are published:

### Monthly:

- SI-STAT Database: Enterprises – Business Tendency: [Business tendency in manufacturing](#), [Business tendency in retail trade](#), [Business tendency in construction](#), [Business tendency in services](#), [Consumer survey](#). The results are shown as the balance by individual questions for sector and total.
- Business tendency (Enterprises, Business Tendency): »Business tendency, Slovenia, monthly«.
- Sentiment indicator (Enterprises, Business Tendency): »Sentiment indicator, Slovenia, monthly«.
- Consumer survey (Quality of Life, Consumer Opinion): »Consumer survey, Slovenia, monthly«.
- [European Commission \(EC\)](#).

### Quarterly:

- SI-STAT Database: Enterprises – Business Tendency: [Business tendency in manufacturing](#), [Consumer survey](#) . The results are shown as the balance by individual questions for sector and total in January, April, July and October.
- Business tendency (Enterprises, Business Tendency): »Business tendency, Slovenia, monthly«.
- Consumer survey (Quality of Life, Consumer Opinion): »Consumer survey, Slovenia, monthly«.
- [European Commission \(EC\)](#).

### Twice a year:

- SI-STAT Database: Enterprises – Business Tendency: [Business tendency in manufacturing](#). The results are shown as the balance by individual questions for sector and total in April and November.
- Business tendency (Enterprises, Business Tendency): »Business tendency, Slovenia, monthly«.
- [European Commission \(EC\)](#).

### Annually:

- Statøbook.



## 9 REVISION OF THE DATA

### 9.1 PUBLISHING OF PRELIMINARY AND FINAL DATA

Only final data are published.

### 9.2 BREAKS IN TIME SERIES

#### SENTIMENT INDICATOR

Until March 2002 the sentiment indicator was calculated only from the confidence indicators in manufacturing and retail trade and the consumer confidence indicator. Since April 2002 also the confidence indicators in construction and services have been included in the calculation of the sentiment indicator.

#### CONSUMER SURVEY

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.

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

## 10 OTHER METHODOLOGICAL MATERIALS

#### BUSINESS TENDENCY

- Questionnaire (only in Slovene):
  - Poslovne tendence (PT),
  
- Standard quality report for the surveys:
  - Business tendency in manufacturing (PT-IND), (only in Slovene),
  - Business tendency in retail trade (PT-TRG) , (only in Slovene),
  - Business tendency in construction (PT-GRAD) , (only in Slovene),
  - Business tendency in services (PT-STOR) , (only in Slovene),
  
- Annual quality report for the surveys:
  - Business tendency in manufacturing (PT-IND),
  - Business tendency in retail trade (PT-TRG) ,
  - Business tendency in construction (PT-GRAD) ,
  - Business tendency in services (PT-STOR),

theme: Enterprises, sub-theme: Business tendency.

<http://www.stat.si/StatWeb/en/mainnavigation/methods-and-classifications/quality-reports>

## **CONSUMER SURVEY**

- Questionnaire (only in Slovene):
  - Mnenje potrošnikov (MP),
  
- Standard quality report for the surveys:
  - Consumer Survey (MP), (only in Slovene)
- Annual quality report for the surveys:
  - Consumer Survey (MP)

theme: Quality of Life, sub-theme: Consumer Opinion.

<http://www.stat.si/StatWeb/en/mainnavigation/methods-and-classifications/quality-reports>