

## NOTES ON METHODOLOGY FOR RETAIL TRADE TURNOVER INDICES

### Notice

Since January 2024, the base year has been changed to 2021 and the new observation unit is a kind-of-activity unit (KAU).

The new base year and the new observation unit – kind of activity unit (KAU), are defined by Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics, repealing 10 legal acts in the field of business statistics, which concerns short-term business statistics of all Member States.

Data at the level of the new observation unit are available until January 2005, and for the period from 2000 to 2004, data are published at the enterprise level.

Time series on retail trade turnover starting with 2000, base year 2021 = 100, are available in Excel tables on the website of the Croatian Bureau of Statistics within **Databases** under the titles [STS Databases](#) and [PC-Axis Databases](#), and within **Statistics in Line** under the title [Economy – Basic Indicators](#). The tables in databases published with the old base year (2015 = 100) will no longer be updated.

Precise dissemination dates are listed in the Calendar of Statistical Data Issues for 2024, which is available on the website of the Croatian Bureau of Statistics <https://podaci.dzs.hr/en>.

### Sources and methods of data collection

The data are based on the Monthly Report on Retail Trade (TRG-1 form) and administrative data sources (Tax Administration fiscalisation file).

The data are collected via a web-based application (the so-called CAWI). The reporting units enter data directly into the TRG-1 e-form, which is available on the Data Dissemination and Collection Portal of the Croatian Bureau of Statistics at <https://podaci.dzs.hr/hr/obrasci/trgovina-i-ostale-usluge/>. The period for data collection ranges each month, as a rule, between the 1<sup>st</sup> and the 20<sup>th</sup> day in a month for the previous reference month data.

The methodology for this survey is based on Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics, repealing 10 legal acts in the field of business statistics, and the Commission Implementing Regulation (EU) 2020/1197 of 30 July 2020 laying down technical specifications and arrangements pursuant to Regulation (EU) 2019/2152 of the European Parliament and of the Council on European business statistics repealing 10 legal acts in the field of business statistics.

This survey is conducted on the basis of the Official Statistics Act (NN, No. 25/20).

### Coverage and comparability

The statistical unit of the retail trade turnover index is a kind-of-activity unit. The observation units are business entities (legal entities and tradesmen) registered in retail trade as their main activity (division 47 of the NKD 2007) as well as selected business entities registered in other activities if performing retail trade activities. The most significant multi-industry enterprises have been divided into so-called kind-of-activity units to improve the homogeneity of the results of statistical surveys by activity, and thus the international comparability of these results.

The survey is carried out by using the sampling method. The sample frame consists of business entities and parts thereof registered in the Register of Business Entities of the Croatian Bureau of Statistics. Since 2021, the sample selection frame has been expanded using an administrative data source (Tax Administration fiscalisation file).

Business entities are divided by their main activity on the basis of the NKD 2007 (NN, Nos 58/07 and 123/08). By size, they are divided into classes from 1 to 7.

The criterion for determining the size of a business entity is the number of persons in employment. Business entities of size 1 are those employing 0 – 4 persons, of size 2 those employing 5 – 9 persons, of size 3 those employing 10 – 19 persons, of size 4 those employing 20 – 49 persons, of size 5 those employing 50 – 99 persons, of size 6 those employing 100 – 249 persons and of size 7 those employing 250 and more persons. For business entities engaged primarily in non-trade activities, the number of persons in employment in trade activities is taken into account.

The method used to select the sample is the cut-off method. The sample covers all business entities employing 10 and more persons as well as business entities selected by using cut-off method employing less than 10 persons and covering 70% of the total turnover in each class of division 47 of the NKD 2007. Due to the application of the cut-off method for selecting the sample, the standard error and the coefficient of variation are not calculated.

### Seasonal and working-day adjustment method

Since 2016, in the process of seasonal adjustment the software package JDemetra+ and X13 ARIMA method has been used. This process identifies and assesses seasonal and working-day effects in time series by using statistical models and procedures.

The revision of the previously published seasonally and working-day adjusted indices is due to several causes. The most common cause is the change in estimated parameters of existing statistical models while conducting new estimates, which occurs due to new observations. Other causes are changes in source data or in applied statistical models.

Calendar effects have a significant impact on time series movement, the most common of which are the effect of moving holidays, the effect of the leap year and the effect of working days.

### **Notice concerning the terminology**

In the Croatian language, the term "kalendarsko prilagođavanje" (calendar adjustment) is not the literal translation of the term "working-day adjustment" in English, which means "adjustment for the number of working days". It is used in order to prevent misunderstandings by national users.

The term "working-day adjustment" in short-term business statistics actually refers to calendar adjustment, but due to specific Eurostat's requirements for short-term statistics, the term "working-day adjustment" is used instead.

### **Seasonally and working-day adjusted indices**

The seasonally and working-day adjusted indices imply that the gross indices are adjusted for seasonal and working-day effects. Indices adjusted in that way and associated rates of change in two consecutive observations are used to compare data with data from the previous month.

In line with the above mentioned, month-on-month growth rates of turnover calculated on the basis of seasonally and working-day adjusted indices are presented and interpreted (the comparison between the indices of the current reporting month with the indices of the previous reporting month) in the monthly comparison (First Release, tables 1 and 3).

### **Working-day adjusted indices**

Working-day adjusted indices imply that the gross indices are adjusted only for calendar effects. Indices adjusted in that way and associated inter-annual rates of change are used to compare data with data from the same month of the previous year.

In line with the above mentioned, year-on-year growth rates of the volume of turnover calculated on the basis of working-day adjusted indices are presented and interpreted (comparison between indices of the reporting month with the indices of the same reporting month of the previous year) in the annual comparison (First Release, tables 2 and 4).

### **Trend indices**

Time series of trend indices are released with each revision of seasonally adjusted data in Excel tables on the website of the Croatian Bureau of Statistics within the **Databases** under the titles [STS Databases](#) and [PC-Axis Databases](#), and within **Statistics in Line** under the title [Economy – Basic Indicators](#).

### **Gross indices**

In order to sustain the consistency and continuity with the previously released data, indices continue to be presented as gross, unadjusted indices in the same way as before (First Release, tables 1, 2 and 5).

Data are regularly sent to Eurostat every month (in the form of value and volume gross, seasonally and working-day adjusted indices on the basis of 2021). They are available on [Eurostat's website](#) together with the indicators of other EU Member States they are comparable with.

### **Definitions**

**Turnover** is the total value of all goods sold and services provided on the market in a month, irrespective of whether paid up or not. It also includes the value added tax.

**Retail trade turnover** is a turnover generated by all business entities engaged in this activity, irrespective of their registered main activity.

The results are published in the form of nominal (value indices) and real indices (volume indices).

Value indices show the turnover movements in current prices.

Volume indices are calculated by deflating the value indices by the retail trade price indices of goods (without electricity and water distribution) according to the consumer price indices.

### **Retail trade branches**

Retail trade branches represent the actual predominant assortment of sales in the retail trade. Since January 2024, the main criterion for monitoring the turnover by trade branches is based on what is sold, not on sales channels, and turnover indices for the following trade branches are no longer published: Retail sale via Internet or via mail order and Other non-store retail sale.

### **Abbreviations**

CAWI                      computer-assisted web interview

EC	European Community
EU	European Union
Eurostat	Statistical Office of the European Union
KAU	kind-of-activity unit
NKD 2007	National Classification of Activities, 2007 version
NN	Narodne novine, official gazette of the Republic of Croatia