

March 2020

RETAIL TRADE

- In March 2020 the seasonally adjusted index of retail trade sharply fell by 20.5% in value terms in the month on month series, while the volume decreased by 21.3%. These are the largest drops since the series began, as many stores ceased trading from 11 March following official government guidance during the coronavirus (COVID-19) pandemic.
- In the 1st Quarter of 2020 value and volume of retail sales were down -5.8% and -5.9% respectively when compared with the 4th Quarter of 2019.
- The year on year series shows a strong decline in March 2020, as value decreased by -18.4% and volume dropped by -19.5%. Although value of food sales rose by +3.5%, value of non-food sales was down 36.0% from March 2019.
- Large-scale distribution fell by 9.3% compared with the same period a year earlier, while small-scale distribution reported an even stronger reduction of 28.2%.
- In March 2020, non-store sales were down 37.9% in the year on year series.
- Online sales was the only channel of distribution recording a growth, increasing by 20.7% when compared with the same month a year earlier.
- Looking at the value of sales for non-food products, all categories fell sharply in the year on year series. The largest drops were reported for Clothing (-57.1%), Sporting equipment, games and toys (-54.2%), and Shoes, leather goods and travel items (-54.1%), while Pharmaceutical products was the category suffering the least with a negative 6.3%.
- The COVID-19 pandemic emergency affected the data collection of the survey and a moderate fall in the response rate was registered. New strategies were implemented to deal with the missing responses in order to calculate and release accurate indices for March 2020 (for further details see Methodological note, page 8)

CHART 1. RETAIL TRADE, SEASONALLY ADJUSTED INDEX AND THREE-MONTH MOVING AVERAGE

January 2015 – March 2020, value (index, 2015=100)

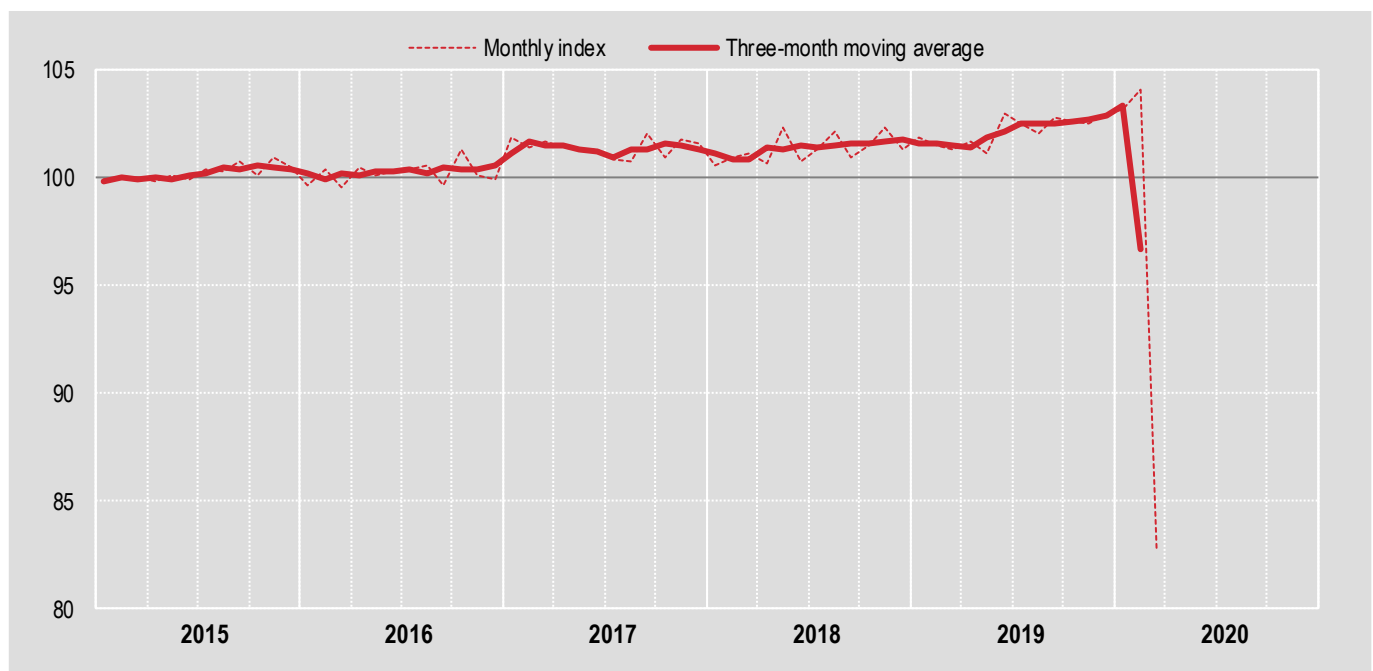


CHART 2. RETAIL TRADE, MONTH ON SAME MONTH A YEAR AGO PERCENTAGE CHANGES

January 2016 – March 2020, percentage changes in value and volume, non-seasonally adjusted (index, 2015=100)

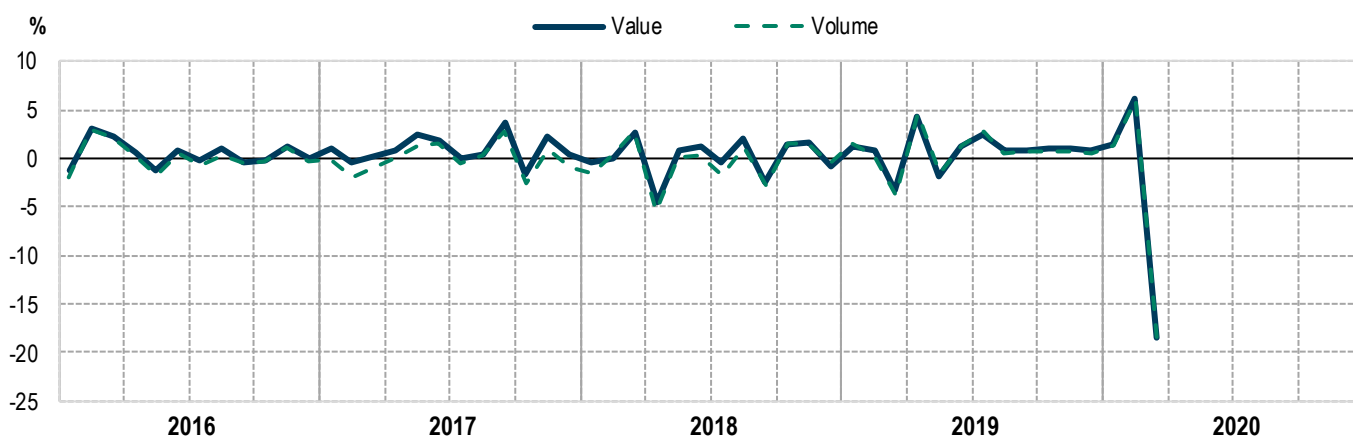


TABLE 1. RETAIL TRADE BY MARKETABLE GOODS SECTOR

March 2020, months on previous months and months on same months a year ago percentage changes in value and volume, seasonally adjusted and non-seasonally adjusted (index, 2015=100) (a)

MARKETABLE GOODS SECTOR	Months on previous months percentage changes (seasonally adjusted)			
	Mar20 Feb20		Jan-Mar20 Oct-Dec19	
	value	volume	value	volume
Food	0.0	-0.4	+2.0	+1.9
Non food	-36.0	-36.5	-11.6	-11.5
Total	-20.5	-21.3	-5.8	-5.9
MARKETABLE GOODS SECTOR	Months on same months a year ago percentage changes (non-seasonally adjusted)			
	Mar20 Mar19		Jan-Mar20 Jan-Mar19	
	value	volume	value	volume
Food	+3.5	+2.1	+4.6	+3.9
Non food	-36.0	-36.0	-10.8	-9.8
Total	-18.4	-19.5	-4.0	-4.2

(a) Provisional data

TABLE 2. RETAIL TRADE BY MARKETABLE GOODS SECTOR AND CHANNEL OF DISTRIBUTION

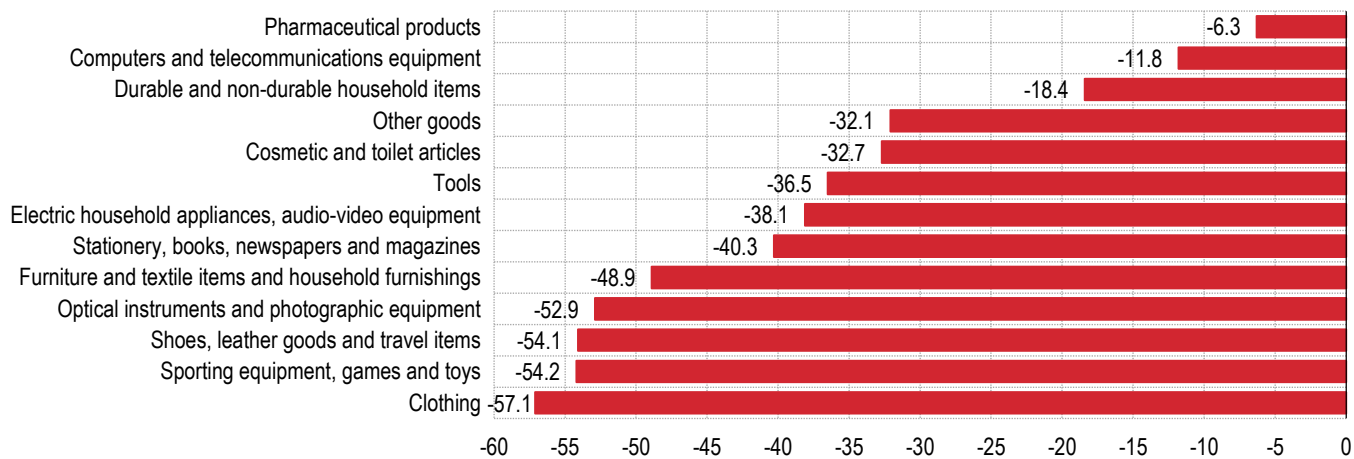
March 2020, months on same months a year ago percentage changes in value, non-seasonally adjusted (index, 2015=100) (a)

MARKETABLE GOODS SECTOR AND CHANNEL OF DISTRIBUTION	Mar20 Mar19	Jan-Mar20 Jan-Mar19
Large-scale distribution	-9.3	+0.3
Food	+7.4	+6.6
Non food	-42.2	-11.6
Small-scale distribution	-28.2	-8.7
Food	-1.0	+1.9
Non food	-36.6	-12.0
Non-store retail sales	-37.9	-13.3
Online sales	+20.7	+17.8
Total	-18.4	-4.0

(a) Provisional data

CHART 3. YEAR-ON-YEAR NON-FOOD GROWTH RATE BY PRODUCT SEGMENT

March 2020, months on same months a year ago value (index, 2015=100)



The table below shows routine revisions, calculated as differences (in percentage points) between first release and the latest estimates concerning the same reference period. Revisions to year-on-year growth rate refer to not adjusted data of the last month prior to the current reference period. With regard to the short-term growth rate, an additional monthly revision for seasonally adjusted data occurs as new observations can change the seasonal factors that are applied to the whole time series.

Table 3 provides revised data for February 2020.

Starting this month ISTAT changes its revision policy on retail trade unadjusted indices. Until now, two months have been revised in each bulletin, while from this bulletin just one month is being revised. Nothing changes for the seasonally adjusted index as its whole time series is subject to revisions as usual.

This change in the revision policy is not related to the pandemic emergency by any means, in fact it was long planned in order to align the index to the other short-term indicators. Estimates are then subject to a second revision, which occurs on annual basis in Autumn.

TABLE 3. REVISIONS TO GROWTH RATES BY MARKETABLE GOODS SECTOR

Differences in percentage points (index, 2015=100)

	Food sales		Non-food sales		Total sales	
	Month-on-month change (a)	Year-on-year change (b)	Month-on-month change (a)	Year-on-year change (b)	Month-on-month change (a)	Year-on-year change (b)
February 2020						
Value	+0.4	+0.6	0.0	+0.1	+0.1	+0.4
Volume	+0.3	+0.6	+0.1	+0.2	+0.1	+0.3

(a) Figures are calculated on seasonally adjusted data

(b) Figures are calculated on non-seasonally adjusted data

Large-scale distribution: definition of this aggregate was revised according to the classification ATECO 2007 (Italian version of the Classification of Economic Activities NACE Rev.2). Large-scale distribution includes the following categories:

Non-specialized stores with food predominating

- ▶ *Hypermarket (Ateco 47111):* store combining a supermarket (food products) and a department store (non-food products), with a selling surface over 2.500 square metres.
- ▶ *Supermarket (Ateco 47112):* store operating in food retailing, organized as a self-service shop covering a surface area over 400 square metres and offering a wide variety of food (mainly canned and packaged goods), personal hygiene products, household cleaners and pet supplies.
- ▶ *Discount stores (Ateco 47113):* retail area selling wide assortments of goods (not name-brand) focusing on low prices rather than service, displays or variety.

Non-specialized stores with non-food predominating

- ▶ *Department store and non-specialized store selling computers, peripheral devices, telecoms equipment, consumer electronics (audio and video), electrical household appliances:* they both are retail establishments offering a wide range of predominantly non-food consumer goods. Both kinds of stores cover a floor space over 400 square metres and sell a wide range of products such as consumer electronics, household appliances, clothing, furniture and household supplies.

Large footprints specialized stores

- ▶ *Large footprints specialized store (or category killer store):* specialized store offering a deep product assortment within a given category with a footprints over 400 square metres. Category killer stores typically have a large-scale distribution business model.

Small retail store: retail store with a selling surface under 400 square metres. Both specialized stores and non-specialized stores may fall within this category. Among the latter ones, minimarkets (Ateco 47114), frozen food stores (Ateco 47115) and general stores (Ateco 47199) can be found.

E-commerce: electronic selling of goods over the internet network (Ateco 47911). The monthly indices refer to real-time sales transactions that occur as a consumer purchases an item from an online store, which predominantly operates in the e-commerce sector. Web sales performed by retailers that sell primarily in stores do not flow into e-commerce indicators.

Non-store retailing: (Ateco 478 and 479, except from 47911) sales taking place outside of fixed retail stores. Non-store distribution channel includes market stands, mail and catalogue ordering, automated vending, sales representatives and telesales.

Value of sales index: the value of sales index measures the retail trade turnover over time at current prices.

Volume of sales index: the volume of sales index measures the retail trade turnover over time in volume terms (quantity sold). In order to determine the volume of sales index, the value of sales index is divided by the Harmonised index of consumer price (HICP) to allow removing price effects on turnover.

Seasonally adjusted data: seasonally adjusted data refer to the statistical technique designed to remove fluctuations related to seasonal factors (such as weather conditions, administrative measures, etc.) and calendar effects when relevant. Seasonal adjustment provides a clearer view for a trend analysis of a short-term index.

Short-term growth rate: short-term growth rate compares a period (typically a month or quarter) with the previous period, measuring the percentage change.

Year-on-year growth rate: Y-o-Y growth rate compares a period (typically a month or quarter) with the same period from the previous year, measuring the percentage change.

Information objectives and reference regulatory framework

The Retail trade index is compiled using data from the monthly survey on retail sales.

This survey refers to enterprises whose main economic activity is retail trade (according to the Economic activity classification [NACE Rev.2](#)).

Enterprises having the sale of car and fuel as main economic activity are excluded from the survey.

Apart from the monthly indices released at a national level, monthly estimates, consistent with the [European Union Regulation EC 1165/98](#) concerning short-term statistics¹, are available. The latter refer to the main economic activity of the enterprises only and the former are more detailed.

Index base year

The base year for Retail trade indicators is 2015. They are elaborated with reference to the classification of the economic activity Ateco 2007 (the Italian version of the European classification Nace Rev. 2)

The series of monthly indices of retail sales based 2015=100 start with January 2015, Therefore, for the period January 2015-December 2017, the new indices with base year 2015 replace those with base year 2010 already published.

Time series (data for the period January 2000 – December 2014) have been rescaled to the base 2015, in order to meet users' needs and for research purposes.

In coincidence with the elaboration of data in base 2015, a new index on e-commerce starts to be calculated and published.

Sampling design

Retail trade data are collected from a sample of about 8.000 enterprises, resident in Italy.

The sample is stratified considering the following variables:

- ✓ main activity according to the classification Ateco 2007
- ✓ enterprise size, identified on the basis of three classes of persons employed (1-5, 6-49 and at least 50).

According to the sampling scheme, enterprises with less than 50 persons employed are selected at random, while all the units with 50 or more persons employed are included in the sample.

In the calculation of the monthly indices weights with reference to the base 2015 are used. In particular, weights of the large distribution in terms of turnover is equal to 46.4%, while the weight of small scale distribution enterprises is 48.0%. In the next table data on the weights used in the aggregation of the monthly indices of retail sales in base 2015 are compared to those used in the previous base 2010.

¹ Eurostat publishes monthly data referring to all European countries. The same data are also used to estimate data for the European Union aggregates.

TABLE 1. WEIGHTING STRUCTURE OF MONTHLY RETAIL SALES INDEX

Percentage values

Aggregates	base 2010	base 2015
TYPE OF DISTRIBUTION		
Small scale distribution	55.1	48.0
Large scale distribution	44.9	46.4
-Non-specialised large-scale retail	38.2	36.7
Food predominant	34.2	33.7
- Hypermarkets	12.5	11.6
- Supermarkets	16.7	16.7
- Discounts stores	5.0	5.4
Non-food predominant	4.1	3.0
- Large scale specialised stores	6.6	9.7
E-commerce	-	1.9
Non-store retailing	-	3.7
PRODUCT GROUPING		
Food products	35.5	42.2
Non-food products	64.5	57.8
Pharmaceuticals and other therapeutic products	9.2	8.4
Clothing	12.1	11.9
Shoes, leather goods and travel items	3.5	3.4
Furniture and textile items and household furnishings	5.9	4.5
Electric household appliances, audio-video equipment	4.0	3.3
Computers and telecommunications equipment	2.7	2.6
Optical instruments and photographic equipment	1.6	1.3
Durable and non-durable household items	3.5	2.1
Household tools and hardware	5.1	4.1
Cosmetic and toilet articles	4.2	3.0
Stationery, books, newspapers and magazines	2.7	1.9
Sporting equipment, games and toys	3.2	2.5
Other goods	6.8	8.8
SIZE OF ENTERPRISES (PERSONS EMPLOYED)		
1-5	27.9	28.4
6-49	28.2	25.4
50 or more	43.9	46.2

Value and volume index

The retail trade value index is a short-term measure of the changes in the value of sales by Italian retailers. It reflects the effect of both volume and price. In order to determine estimates on the volume of sales, value of sales indices are processed to allow removing price effects on turnover, using the Harmonised index of consumer price (HICP).

Data revision and seasonal effects

Monthly data are revised in the following month after the first publication. The revision is made in order to take into account the additional information from the respondents.

Indices are seasonally adjusted through the Tramo-Seats procedure (942 version for Linux). Like other seasonal adjustment procedures, Tramo Seats is based on the hypothesis that monthly or quarterly time series result from unobservable components:

- ✓ trend-cycle component (long-term and medium-term movements in the data);
- ✓ seasonal component (periodical short-term movements having a length of no more than one year);
- ✓ irregular component (unpredictable movements in the data).

Tramo-Seats uses a *model-based* method, that is a statistical model that explain the behaviour of the original time series and its components.

In particular, food and non-food series are seasonally adjusted and aggregate seasonally adjusted estimates are then be derived.

Seasonal adjusted data are revised every month as a consequence of the re-estimation of the seasonal adjustment factors, that are also reviewed annually.

Territorial breakdown

Indices are calculated and disseminated at national level.

Timeliness

Indices are published on a monthly basis with a delay of approximately 38 days from the end of the reference month.

Dissemination

Data are issued through press releases, available on the Istat website at <http://www.istat.it/en>.

The series of the updated indices are published on the Istat data warehouse (<http://dati.istat.it/?lang=en>) under the theme "Index of retail trade sales".

Measures adopted to handle the impact of pandemic emergency on retail trade survey

The COVID-19 pandemic emergency partially affected the data collection causing minor issues, while strict safety measures and partial lockdown have been gradually introduced for many businesses involved in this survey. During this period, numerous non-essential retailers had to cease trading, while others operated in a limited capacity. Overall, even if working under critical conditions, the majority of the businesses involved in the survey provided the information required. The responses rate of businesses decreased by 7 percentage points compared with the rate recorded for the advance estimate of March 2019. As the responses loss occurred was very limited, the ordinary approach for missing-data imputation process was used. Procedures for data revision and correction were modified to accurately manage the abnormal changes in growth rate of sales to fully include any immediate pandemic effects on retailing and the data verification process was strengthened. Quality of monthly data provided for March is to be considered quite the same as usual, although estimates may show higher revisions when the final data will be released.

Series were seasonally adjusted following official Eurostat guidelines, available at:

https://ec.europa.eu/eurostat/documents/10186/10693286/Time_series_treatment_guidance.pdf

Taking into account the extraordinary sharp fall in sales recorded in March, models for time series treatment included additional regressors when necessary. This procedure may continue in the next months until the information collected will offer a clear insight and therefore statistical models for seasonal adjustment might be revised.

Therefore, in the next months revisions of the seasonally-adjusted data may be larger than usual.

For technical and methodological information

Romina Ciavardini

tel. +39 06 4673.6504

ciavardini@istat.it