

27 March 2018

Business Turnover Index (BTI). Base 2015
January 2018. Provisional data

In January, Business Turnover¹ registers a -1.1% monthly variation, after adjusting for seasonal and calendar effects

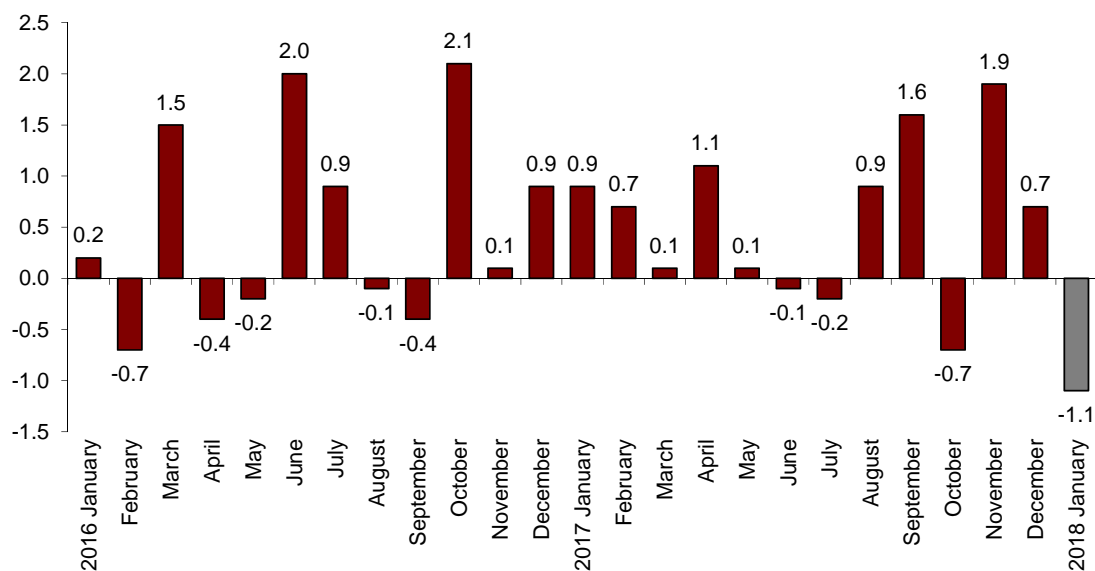
The annual rate of the BTI stands at 5.1% in the series adjusted for seasonal and calendar effects and at 7.4% in the original series

The INE is today publishing the first BTI in base 2015

Monthly evolution of the BTI

The monthly variation of the General Business Turnover Index (BTI) between the months of January and December was -1.1%, after adjusting for the seasonal and calendar effects². This rate is 1.8 points lower than that of the previous month.

Business Turnover General Index
Seasonally and calendar adjusted. Monthly rate



¹ As reflected in the methodology of this value index, the information is presented in current terms (nominal terms), this is, without adjusting the effects in the price variation of it.

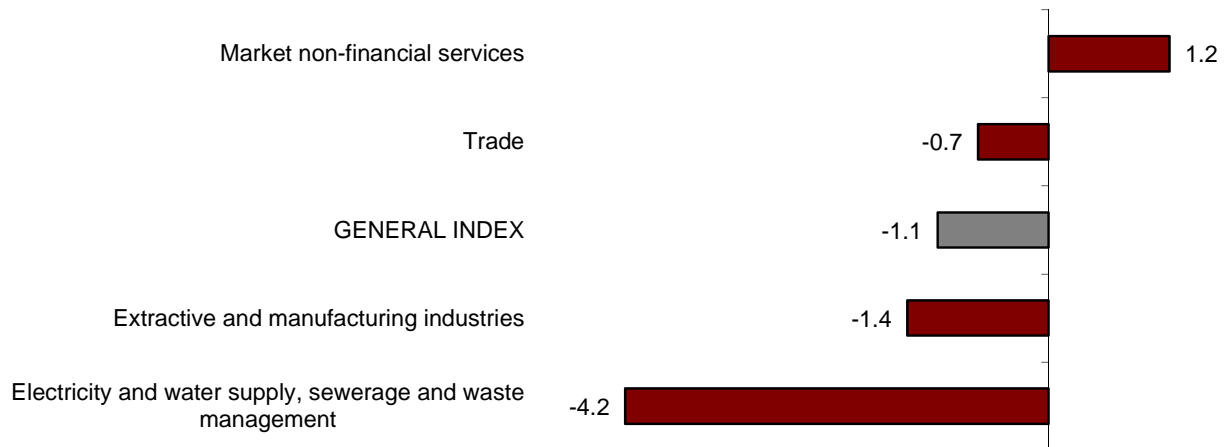
² As of this month, the JDemetra+ software is used to carry out the adjustment of seasonal and calendar effects.

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Non-financial services market is the only sector with a positive monthly rate (1.2%), of the four analysed sectors.

In turn, *Electricity and water supply, sewerage and waste management* registered the greatest decrease (-4.2%).

Business turnover indices: General and by sectors Seasonally and calendar adjusted. Monthly rate

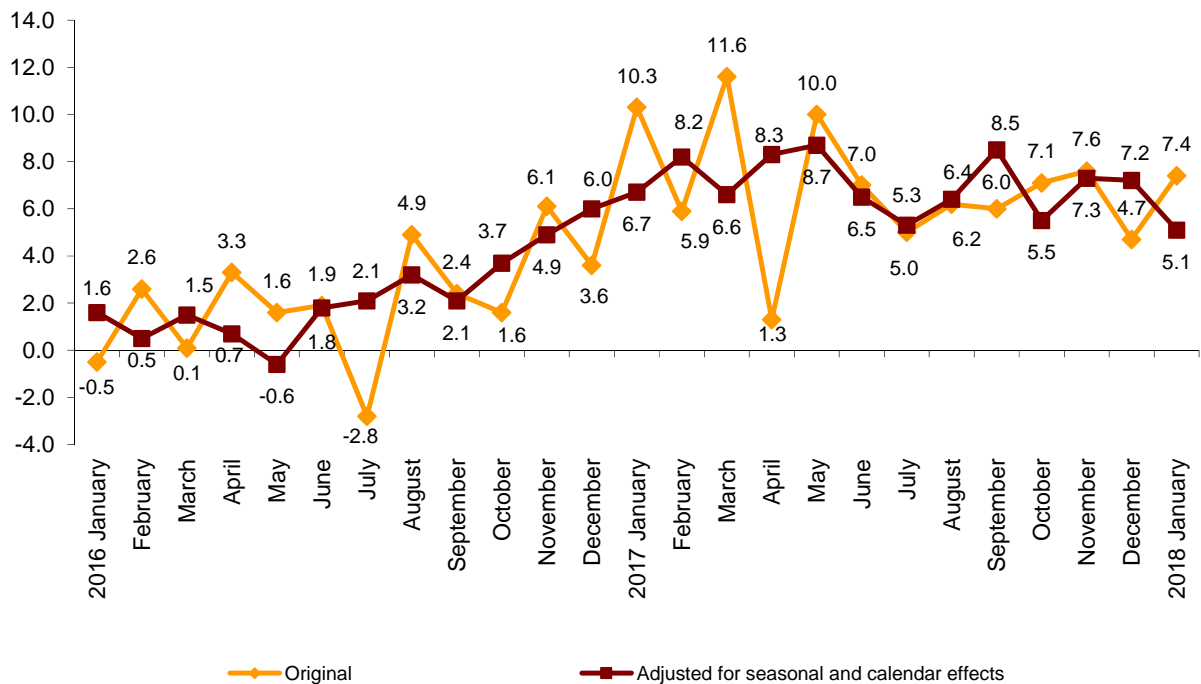


Annual Evolution of the BTI

In January, the General Business Turnover Index adjusted for seasonal and calendar effects registered a variation of 5.1% as compared with the same month of the previous year. This rate is 2.1 points lower than that registered in December.

The BTI original series experienced an annual variation of 7.4%. This rate is 2.7 points higher than that registered in December.

Business Turnover General Index Annual rate



The indices adjusted for seasonal and calendar affects recorded positive annual variation rates in three of the four analysed sectors.

Annual rates of the Business Turnover Indices: General and by sectors

	Unadjusted index Annual rate (%)	Seasonally and calendar adjusted Annual rate (%)
GENERAL INDEX	7.4	5.1
Extractive and manufacturing industries	9.9	6.6
Electricity and water supply, sewerage and waste management	-5.0	-7.3
Trade	7.2	5.4
Market non-financial services	9.0	7.8

Informative annex

Main features of the Business Turnover Index (BTI) in base 2015

Today the National Statistics Institute (INE) is publishing the Business Turnover Index (BTI) in base 2015.

This indicator complements the information on the evolution of the different sectors separately, provided by INE each month. This offers the final user a short-term indicator that allows, in the first place, to carry out a monthly monitoring of the business activity of a very important part of the economy, and in the second place, to carry out comparative analyses between the different sectors, as well as analysing the interrelation that may occur among them.

The BTI is obtained from the results of three other statistical operations implemented in the INE: Industrial Turnover Indices (ITI), Services Sector Activity Indicators (SSAI) and Retail Trade Indices (RTI). In addition, the activity of *Electricity and water supply, sewerage and waste management* uses information from administrative records to complete the industrial sector (from the reported sales by Large Companies¹ in their monthly VAT self-assessments).

The Council Regulation (EC) No. 1165/98 concerning short-term statistics stipulates that Member States must change the base every five years, specifically in those years ending in zero and five. This change must be made within three years after the end of the new base year. To comply with this Regulation, the ITI, SSAI and RTI have published the results in base 2015. The publication of the BTI data in base 2015 ensures the consistency of this indicator with those subject to Regulation (EC) No. 1165/98.

Updating of the weighting structure

- **Weightings**

The weightings involved in the calculation of the general index have been obtained from the data of the structural surveys: Structural Business Statistics: Industrial Sector, Structural Business Statistics: Trade Sector and Structural Business Statistics: Services Sector, referred to 2015.

¹ Large Companies, for tax purposes, are natural or legal persons whose volume of operations has exceeded 6.01 million Euros during the immediately preceding calendar year. The determination of the volume of operations is carried out according to article 121 of the Law 37/1992 on VAT. According to data from the Structural Business Statistics: Industrial Sector, the turnover percentage generated by Large Companies, in the year 2015, was 98% in section D (Electricity, gas, steam and air conditioning supply) and 80% in section E (Water supply; sewerage, waste management and remediation activities).

The weightings of each aggregate represent the relationship between the invoicing value or turnover of the activities of which it is composed and the total invoicing of the activities that make up the population scope of this index. *Extractive and manufacturing industries, Electricity and water supply, sewerage and waste management, Trading and Non-financial services market.*

The following table includes the weight of each of the sectors, and their comparisons with the weightings of 2010.

Ponderaciones del ICNE (tanto por cien)

	Base 2010	Base 2015
Industrias extractivas y manufacturera	28,38	28,84
Suministro de energía eléctrica y agua; saneamiento y gestión de residuos	4,67	6,86
Comercio	41,79	41,82
Servicios no financieros de mercado	25,16	22,48
Total	100,00	100,00

Calculation formula

The Business Turnover Index is calculated using a fixed base Laspeyres index, in which the base year has been established so as to find the consistency with the rest of short-term indicators, in the year 2015.

Chained series

The implementation of a new weighting structure represents a break in the continuity of the series. In order to have continuous series that allow the calculation of variation rates between different periods, and to carry out studies and predictions about the evolution of business turnover for the analysed sectors, the INE has linked the series and published the indices in base 2015, since January 2002, to provide continuity to the published data until now.

The indices prior to 2015 have been linked by multiplying the series by a constant coefficient, thus preserving the rates of variation.

Since January 2015, the BTI series has been recalculated with a new base, using the series of sectors that comprise it in base 2015 and with the new weightings. Therefore, the variation rates of 2015, 2016 and 2017 of the BTI in base 2015 will be different to those calculated using the indices in base 2010.

Seasonal and calendar adjustment

In the new base 2015 the series are adjusted for seasonal and calendar effects, as was already the case in the base 2010.

- ***New software for calendar and seasonal adjustment: JDemetra+***

The series adjusted for calendar effects and the series adjusted for seasonal and calendar effects are obtained with the JDemetra+ software (version 2.2.0)³, from the publication of data referring to 2018. JDemetra+ is officially recommended by Eurostat since February 2015 for performing seasonal and calendar adjustments in the official statistics of the European Union⁴. This is a new seasonal adjustment tool, developed by the National Bank of Belgium in cooperation with the Deutsche Bundesbank and Eurostat.

JDemetra+ includes the algorithms of the two leading seasonal adjustment methods, TRAMO/SEATS and X-12-ARIMA/X-13ARIMA-SEATS. The tool is built on the basis of the concepts and algorithms used in these two reference methods.

- ***The method of seasonal adjustment remains unchanged***

The change of software from TRAMO/SEATS to JDemetra+ does not affect the seasonal adjustment methodology in the INE series, since it is still performed according to the method based on ARIMA Models (TRAMO/SEATS method) as reflected in the INE Standard for the adjustment of seasonal and calendar effects in the short-term series⁵.

This change coincides with the base change and the re-identification of models that takes place once a year. The revisions in the series, caused by the software change, are minimal.

Dissemination of the results

Starting today, the Business Turnover Index is available in the INE database (INEbase) from January 2002 in base 2015.

All information on the new base of the BTI is available on the INE website (www.ine.es).

For further information see **INEbase**: www.ine.es/en/ Twitter: [@es_ine](https://twitter.com/es_ine)

All press releases at: www.ine.es/en/prensa/prensa_en.htm

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³ <https://github.com/jdemetra/jdemetra-app/releases/tag/v2.2.0>

⁴ https://ec.europa.eu/eurostat/cros/system/files/Jdemetra_%20release.pdf

⁵ http://www.ine.es/clasifi/estandar_efectos_estacionales.pdf

Business Turnover Indices. Base 2015

January 2018

Provisional data

1. Business Turnover Indices: General and by sectors Seasonally and calendar adjusted

	Index	Rate (%)		
		Monthly	Annual	Year-to-date average
GENERAL INDEX	112.2	-1.1	5.1	5.1
Extractive and manufacturing industries	114.9	-1.4	6.6	6.6
Electricity and water supply, sewerage and waste management	96.5	-4.2	-7.3	-7.3
Trade	113.6	-0.7	5.4	5.4
Market non-financial services	115.8	1.2	7.8	7.8

2. Business Turnover Indices: General and by sectors Calendar adjusted

	Index	Rate (%)	
		Annual	Year-to-date average
GENERAL INDEX	104.6	4.7	4.7
Extractive and manufacturing industries	105.7	6.6	6.6
Electricity and water supply, sewerage and waste management	72.7	-5.8	-5.8
Trade	107.6	5.0	5.0
Market non-financial services	102.4	8.0	8.0

3. Business Turnover Indices: General and by sectors Unadjusted

	Index	Rate (%)		Effect Annual
		Annual	Year-to-date average	
GENERAL INDEX	107.4	7.4	7.4	
Extractive and manufacturing industries	107.1	9.9	9.9	2.769
Electricity and water supply, sewerage and waste management	105.4	-5.0	-5.0	-0.384
Trade	110.0	7.2	7.2	3.094
Market non-financial services	103.5	9.0	9.0	1.933