

26 March 2018

Industrial Turnover Indices (ITI). Base 2010
January 2018. *Provisional data*

The monthly variation of the General Industrial Turnover Index¹ stands at -2.0%, after adjusting for seasonal and calendar effects

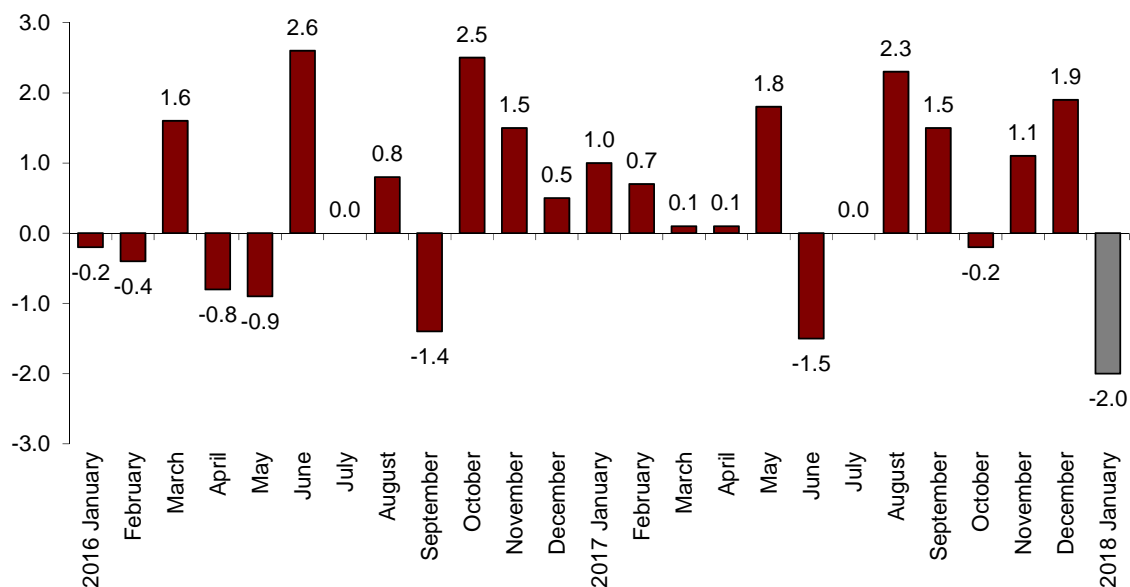
The annual rate stands at 5.8% in the series adjusted for seasonal and calendar effects and at 9.9% in the original series

The INE is today publishing the first ITI in base 2015

Monthly evolution of the Industry Turnover

The monthly variation of the General Industrial Turnover Index between the months of January and December was -2.0%, after adjusting for the seasonal and calendar effects². This rate is nearly four points lower than that of the previous month.

Turnover General Index
Adjusted for seasonal and calendar effects. Monthly rate



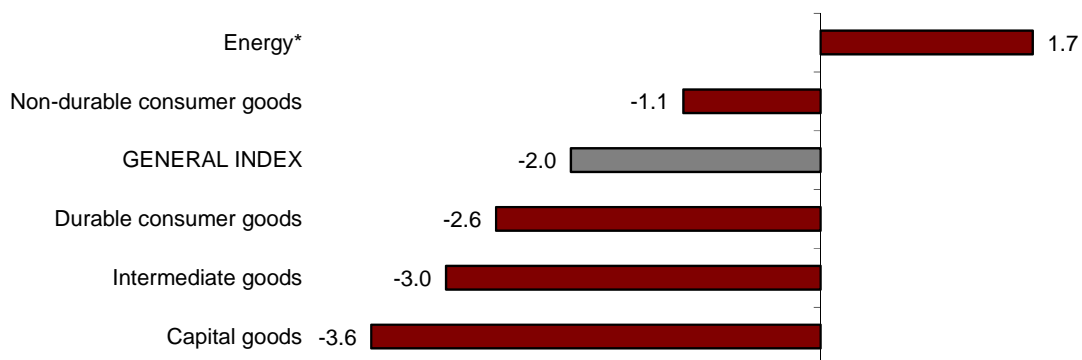
¹ As reflected in the methodology of this value index, the information is presented in current terms (nominal terms), this is, without adjusting the effects in the price variation of it.

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

By economic destination of the goods, four of the five sectors showed negative monthly rates. Among them, the decreases in Capital goods (-3.6%) and intermediate goods (-3.0%) stood out.

The only sector that increased was Energy (1.7%).

**Turnover indices: General and by economic destination
Adjusted for seasonal and calendar effects. Monthly rate**



* Except the supply of electrical energy, gas, steam, air conditioning and water.

A more detailed analysis shows the branches of activity with the greatest and lowest monthly rates in the month of January.

**Branches of activity with the highest monthly rates of the Industrial Turnover Index,
Seasonally and calendar adjusted**

Branch of activity (Section of the CNAE 2009)	Monthly rate (%)
Extraction of anthracite, coal and lignite	22.1
Graphic arts and reproduction of recorded media	2.0
Other mining and quarrying	1.8

**Branches of activity with the lowest monthly rates of the Industrial Turnover Index,
Seasonally and calendar adjusted**

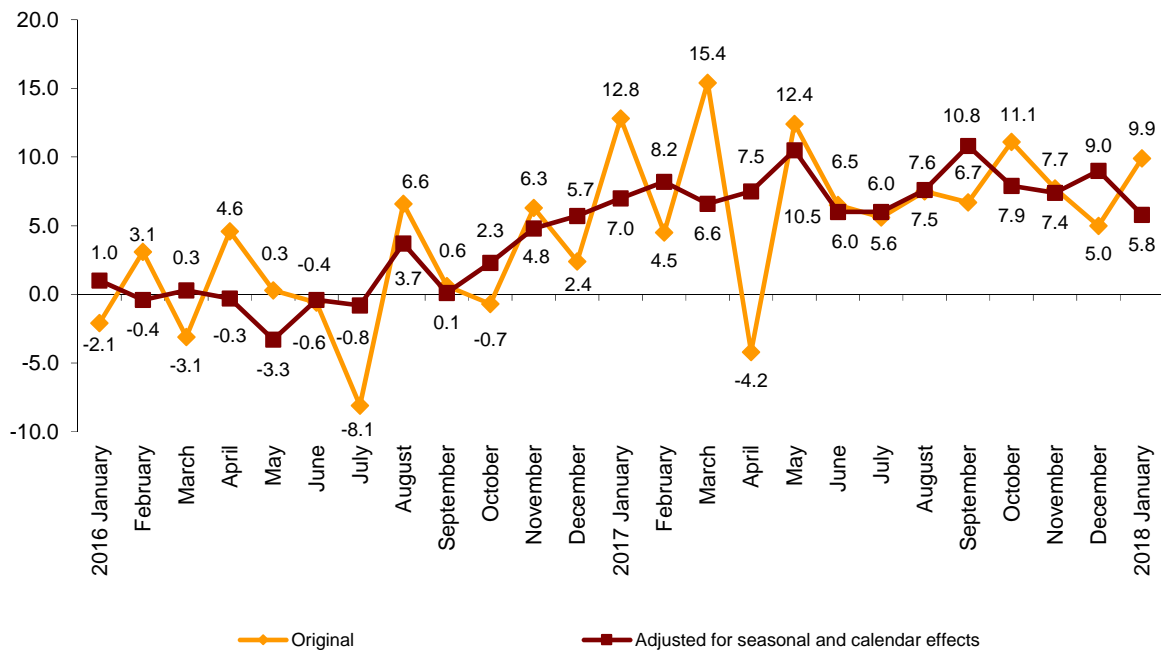
Branch of activity (Section of the CNAE 2009)	Monthly rate (%)
Manufacture of tobacco	-19.7
Manufacture of computer, electronic and optical products	-17.0
Manufacture of other transport material	-10.0

Annual evolution of the Industrial Turnover Indices

The General Industrial Turnover Index (ITI), after adjusting for seasonal and calendar effects, registered a variation of 5.8% in January, as compared with the same month of the previous year. This rate is 3.2 points lower than that registered in December.

The original series of the ITI experienced an annual variation of 9.9%. This rate was almost five points higher than that registered in December.

General Industrial Turnover Index Annual rates



By economic destination of goods, the indices adjusted for seasonal and calendar effects recorded positive annual rates in all the sectors analysed. Worth noting were the increases of *Intermediate goods* and *Energy* (8.2% in both cases).

Annual rates of the Turnover National Index: General and by economic destination of the goods

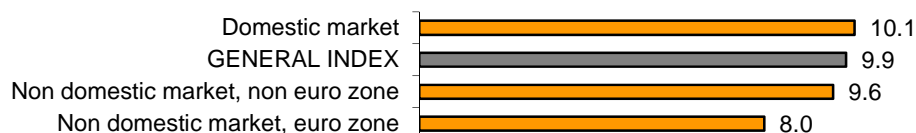
	Unadjusted index	Seasonally and calendar adjusted index
	Annual rate (%)	Annual rate (%)
GENERAL INDEX	9.9	5.8
1. Consumer goods	6.1	2.9
1.1. Durable consumer goods	8.0	3.3
1.2. Non-durable consumer goods	6.0	2.8
2. Capital goods	10.2	5.8
3. Intermediate goods	12.9	8.2
4. Energy*	9.3	8.2

* Except supply of electrical energy, gas, steam, air conditioning and water.

Annual evolution of the Industrial Turnover Indices by market. Original series

By geographical destination of sales, in January all the markets analysed showed positive annual rates. The greatest increase was registered in the domestic market (10.1%).

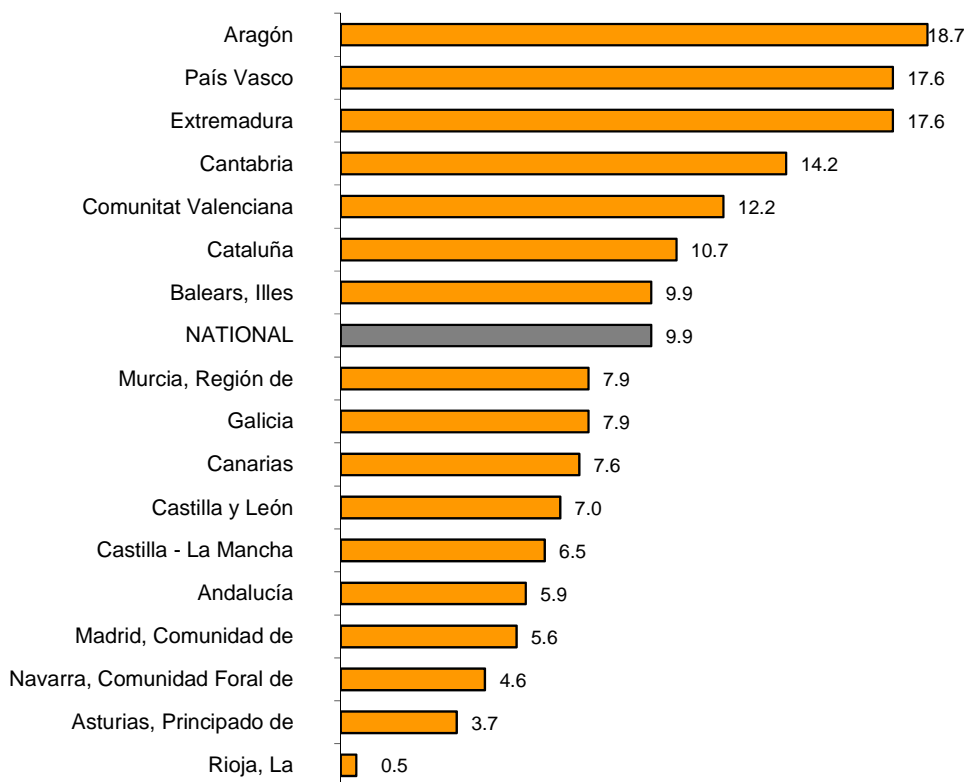
Industrial turnover indices: General and by market Annual rate



Results by Autonomous Communities. Annual variation rates of the Industrial turnover. Original series

Turnover increased in all Autonomous Communities, as compared to January 2017. The largest increases were produced in Aragón (18.7%), País Vasco and Extremadura (17.6% in both cases). In turn, those with the lowest increases were registered in La Rioja (0.5%), Principado de Asturias (3.7%) and Comunidad Foral de Navarra (4.6%).

General indices: National and by Autonomous Community Annual rate and average rate of Industrial Turnover



Informative annex

Main features of the Industrial Turnover Index (ITI) in base 2015

The National Statistics Institute (INE) is today publishing the Industrial Turnover Index (ITI) in base 2015. In this way, it complies with Council Regulation (EC) No. 1165/98 on short-term statistics, which 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.

The base change consists of reviewing and updating the components involved in the calculation of the index. The objective is to obtain an indicator that adapts to the changes that have occurred over the last five years in the different activities of the industrial sector, so that it measures the evolution of this sector more precisely, resulting in a more representative ITI.

Updating of the sample and weighting structure

- **Sample**

One of the most important aspects of the base change process is the updating of the sample. To this end, a complete study of the industrial activities, the weightings and the sample of reporting units is carried out in order to update their structure and improve their representativeness.

The new database **has included a new division 07: Mining of metal ores**, due to the strong growth of this industrial activity in recent years.

The sample consists of a panel that is selected by the *cut-off* method, ordering establishments according to decreasing production within the class (activity to four digits of the CNAE- 2009) by Autonomous Community, until a certain percentage of its turnover is covered. To improve the accuracy of the estimates, the strata with less coverage have been strengthened.

As a result of this sample update, approximately **11,000 industrial establishments** are surveyed each month in the ITI base 2015.

These industrial establishments report their turnover, broken down by target markets, each month.

- **Weightings**

The complete weighting structure has been updated at all levels of disaggregation, functional and geographical, to represent industrial activity more accurately.

For this purpose, it has been used the Structural Business Statistics: The Industrial Sector of 2015, which provides information on the turnover by branch of activity, Autonomous Community and destination of sales.

The following table includes the weights of each industrial sector by economic destination of the goods and their comparison with the weights in effect during the base 2010.

Ponderaciones por destino económico de los bienes (tanto por cien)

	Base 2010	Base 2015
1. Bienes de consumo	31,10	30,85
1.1. Bienes de consumo duradero	2,87	1,85
1.2. Bienes de consumo no duradero	28,23	29,01
2. Bienes de equipo	23,46	25,74
3. Bienes intermedios	37,44	35,73
4. Energía	8,00	7,68
Total	100,00	100,00

Calculation formula

The Turnover Indices are calculated, as in the 2010 base, using a fixed base Laspeyres-type index. In the value indices, such as in the case of the ITI, the formula of the fixed base Laspeyres index is equivalent to that of the linked Laspeyres.

These indices are obtained, as in the base 2010, by Autonomous Community. In the formula used, indices are additive both by Autonomous Communities and activities.

Chained series

The implementation of a new weighting structure means a break in the continuity of the series, especially when there is also a change in the scope of application of the index, as is the case in the ITI base 2015, where a new division has been included.

In order to have continuous series that allow us to calculate variation rates between different periods, and to carry out studies and predictions about the evolution of industrial activity, the INE has linked the series and published the indices in base 2015, since January 2002 in order to provide continuity to the information published up 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 series have been recalculated in the new base, using the new calculation formula and weightings. Therefore, the variation rates for 2015, 2016 and 2017 in the ITI base 2015 will be different from 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: 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 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 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 short-term series*⁵.

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

In the ITI base 2015, the detail for activities published in the base 2010 have been kept: national indices for sections B and C, by economic destination of the goods and the divisions and branches that comprise them. The general index for each Autonomous Community and indices by markets for the national total are also disseminated.

With respect to the detail by activities published in previous bases, it has been increased with the division 07 of CNAE-2009.

The main results adjusted for calendar effects and for seasonal and calendar effects are also published, allowing a clearer analysis of the sector.

All information on the new base of the ITI 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

Industrial Turnover Index. Base 2015

January 2018

Provisional data

1. Turnover indices¹

Seasonally and calendar adjusted

	Index	Rate (%)		
		Monthly	Annual	Year-to-date average
GENERAL INDEX	112.2	-2.0	5.8	5.8
1. Consumer goods	108.6	-1.6	2.9	2.9
1.1. Durable consumer goods	106.6	-2.6	3.3	3.3
1.2. Non-durable consumer goods	109.2	-1.1	2.8	2.8
2. Capital goods	113.6	-3.6	5.8	5.8
3. Intermediate goods	113.3	-3.0	8.2	8.2
4. Energy*	122.6	1.7	8.2	8.2

¹ Regulation (EC) no. 656/2007 of the Commission of 14 June 2007.

* Except supply of electrical energy, gas, steam, air conditioning and water.

2. Turnover indices¹

Calendar adjusted

	Index	Rate (%)	
		Annual	Year-to-date average
GENERAL INDEX	102.9	5.7	5.7
1. Consumer goods	97.0	1.9	1.9
1.1. Durable consumer goods	88.4	2.2	2.2
1.2. Non-durable consumer goods	97.5	1.8	1.8
2. Capital goods	98.4	5.8	5.8
3. Intermediate goods	108.6	7.9	7.9
4. Energy*	113.3	8.3	8.3

¹ Regulation (EC) no. 656/2007 of the Commission of 14 June 2007.

* Except supply of electrical energy, gas, steam, air conditioning and water.

3. Turnover indices: General and by activities Unadjusted

	Index	Rate (%)		Effect
		Annual	Year-to-date average	Annual
GENERAL INDEX	107.1	9.9	9.9	
1. CONSUMER GOODS	101.3	6.1	6.1	1.857
1.1. Durable consumer goods	93.4	8.0	8.0	0.131
- Manufacture of consumer electronics, optical instruments and photographic equipment	90.1	-8.1	-8.1	-0.004
- Manufacture of household appliances	89.7	11.9	11.9	0.055
- Manufacture of motorcycles, bicycles, vehicles for the disabled and others	108.5	4.8	4.8	0.003
- Manufacture of furniture	95.1	7.9	7.9	0.073
- Manufacture of jewellery, costume jewellery and musical instruments	89.3	1.8	1.8	0.002
1.2. Non-durable consumer goods	101.8	6.0	6.0	1.726
- Food industries (except grain mill products and food for animals)	102.3	5.5	5.5	0.925
- Manufacture of beverages	88.4	12.9	12.9	0.358
- Manufacture of tobacco	47.2	23.6	23.6	0.011
- Manufacture of knitted fabrics, carpets, rope, non-woven fabrics, textile products for technical use and industrial and other textile products	106.4	10.1	10.1	0.066
- Manufacture of garments	107.3	0.0	0.0	0.000
- Leather and footwear industry	107.9	5.0	5.0	0.052
- Graphic arts and reproduction of recorded media	97.7	3.3	3.3	0.039
- Manufacture of cleaning articles, perfumes and cosmetics	121.1	11.9	11.9	0.197
- Manufacture of pharmaceutical products	105.7	2.6	2.6	0.079
- Manufacture of sporting goods; games and toys and Other manufacturing industries	87.7	-0.5	-0.5	-0.002
2. CAPITAL GOODS	102.7	10.2	10.2	2.499
- Manufacture of metal products for construction, containers made of metal, steam generators, weapons and ammunition	88.6	10.5	10.5	0.190
- Manufacture of computers, peripherals and telecommunications equipment; appliances for measuring and navigation; radiation and medical and therapeutic equipment	96.4	1.2	1.2	0.007
- Manufacture of machinery and equipment n.e.c.	97.6	19.2	19.2	0.635
- Manufacture of motor vehicles, trailers and semi-trailers	113.9	11.0	11.0	1.635
- Naval, railway, aircraft and spacecraft construction. Combat vehicles	70.4	-2.3	-2.3	-0.044
- Manufacture of medical and dental instruments and supplies	103.2	10.2	10.2	0.035
- Repair and installation of machinery and equipment	92.1	2.4	2.4	0.043
3. INTERMEDIATE GOODS	113.8	12.9	12.9	4.757
- Mining of metal ores	..	..	..	..
- Other mining and quarrying	108.4	20.3	20.3	..
- Manufacture of grain mill products, starches, and food for animals	109.3	10.4	10.4	0.308
- Preparation and spinning of textile fibres. Manufacture of woven textiles. Textile finishings	108.4	6.8	6.8	0.034
- Wood and cork industry	115.7	11.5	11.5	0.158
- Paper industry	111.6	12.0	12.0	0.329
- Chemical industry except cleaning articles, perfumes and cosmetics	110.2	9.8	9.8	0.679
- Rubber and plastic material transformation industry	112.1	10.5	10.5	0.455
- Manufacture of other non-metallic ore products	113.2	12.9	12.9	0.458
- Metallurgy; manufacture of iron, steel and ferro-alloy products	117.6	19.8	19.8	1.226
- Forging, stamping, embossing and rolling of metals. - Manufacture of tools, hardware goods, containers and other metal products	120.0	15.0	15.0	0.692
- Manufacture of electronic components, assembled printed circuits, and magnetic and optical media	118.2	19.9	19.9	0.046
- Manufacture of electrical material and equipment except household appliances	111.0	5.9	5.9	0.170
4. ENERGY*	114.4	9.3	9.3	0.769
- Extraction of anthracite, coal and lignite	72.2	-11.7	-11.7	..
- Extraction of crude oil, petroleum and natural gas	..	..	..	..
- Manufacture of coke and refined petroleum products	114.7	9.4	9.4	1.169

* Except supply of electrical energy, gas, steam, air conditioning and water.

(..) Data not available due to statistical secrecy.

4. Turnover indices: General and by branch of activity Unadjusted

	Index	Rate (%)		Effect
		Annual	Year-to-date average	Annual
GENERAL INDEX	107.1	9.9	9.9	
B. Mining and quarrying industries	123.4	29.2	29.2	1.990
Extraction of anthracite, coal and lignite	72.2	-11.7	-11.7	..
Extraction of crude oil, petroleum and natural gas	..	..	..	..
Mining of metal ores	..	..	..	..
Other mining and quarrying	108.4	20.3	20.3	..
C. Manufacturing industry	107.0	9.7	9.7	9.682
Food industry	103.3	6.3	6.3	1.233
Manufacture of beverages	88.4	12.9	12.9	0.358
Manufacture of tobacco	47.2	23.6	23.6	0.011
Textile industry	107.2	8.6	8.6	0.100
Manufacture of garments	107.3	0.0	0.0	0.000
Leather and footwear industry	107.9	5.0	5.0	0.052
Manufacture of wood and of products of wood and cork, except furniture; basketmaking and wickerwork	115.7	11.5	11.5	0.158
Paper industry	111.6	12.0	12.0	0.329
Graphic arts and reproduction of recorded media	97.7	3.3	3.3	0.039
Manufacture of coke and refined petroleum products	114.7	9.4	9.4	0.771
Chemical industry	112.2	10.2	10.2	0.876
Manufacture of pharmaceutical products	105.7	2.6	2.6	0.079
Rubber and plastic material transformation industry	112.1	10.5	10.5	0.455
Manufacture of other non-metallic ore products	113.2	12.9	12.9	0.458
Metallurgy; manufacture of iron, steel and ferro-alloy products	117.6	19.8	19.8	1.226
Manufacture of metal products, except machinery and equipment	109.4	13.7	13.7	0.881
Manufacture of computer, electronic and optical products	102.1	6.0	6.0	0.049
Manufacture of electrical material and equipment	107.4	6.7	6.7	0.225
Manufacture of machinery and equipment n.e.c.	97.6	19.2	19.2	0.635
Manufacture of motor vehicles, trailers and semi-trailers	113.9	11.0	11.0	1.635
Manufacture of other transport material	71.3	-2.0	-2.0	-0.040
Manufacture of furniture	95.1	7.9	7.9	0.073
Other manufacturing industries	94.1	4.3	4.3	0.036
Repair and installation of machinery and equipment	92.1	2.4	2.4	0.043

(..) Data not available due to statistical secrecy.

5. Turnover indices: General and by markets

5. Turnover indices: General and by markets Unadjusted

	Index	Rate (%)	
		Annual	Year-to-date average
GENERAL INDEX	107.1	9.9	9.9
1. Domestic market	107.0	10.1	10.1
2. Non domestic market	106.4	8.7	8.7
2.1. Non domestic market, euro zone	109.8	8.0	8.0
2.2. Non domestic market, non euro zone	102.8	9.6	9.6

6. Turnover indices: National and by Autonomous Community

Unadjusted

	Index	Rate (%)	
		Annual	Year-to-date average
NATIONAL	107.1	9.9	9.9
Andalucía	103.9	5.9	5.9
Aragón	112.8	18.7	18.7
Asturias, Principado de	105.9	3.7	3.7
Balears, Illes	89.4	9.9	9.9
Canarias	94.1	7.6	7.6
Cantabria	105.6	14.2	14.2
Castilla y León	107.8	7.0	7.0
Castilla - La Mancha	101.0	6.5	6.5
Cataluña	110.6	10.7	10.7
Comunitat Valenciana	109.4	12.2	12.2
Extremadura	117.6	17.6	17.6
Galicia	109.9	7.9	7.9
Madrid, Comunidad de	92.8	5.6	5.6
Murcia, Región de	107.9	7.9	7.9
Navarra, Comunidad Foral de	103.4	4.6	4.6
País Vasco	112.7	17.6	17.6
Rioja, La	91.8	0.5	0.5