

**PRESS RELEASE**

No. 169 of August 9, 2010

For an accurate interpretation of results, please see the methodological explanations on pages 4-5 of the press release.

### Industrial production indices in June and semester I 2010

**In June 2010, industrial production increased compared to the previous month, both as gross series and as series adjusted by number of working days and seasonality, by 4.7% and 1.9%, respectively.**

**Compared to the same month of the previous year, industrial production (gross series) rose by 6.7%, and industrial production as series adjusted by number of working days and seasonality increased by 4.7%.**

**In semester I 2010, industrial production (gross series and series adjusted by number of working days and seasonality) was up 5.6% and 4.4%, respectively, from the same period of the previous year.**

#### Industrial production indices by CANE Rev. 2 section

percentages

2005=100

Activity		Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>1)</sup>	Jun. <sup>1)</sup>
		2009							2010					
Total industry	G	123.7	124.9	104.7	126.7	131.3	125.9	109.7	103.9	108.3	127.3	120.4	126.1	132.0
	S	118.5	120.3	117.2	120.7	121.8	122.2	119.0	117.6	115.6	120.7	121.3	121.8	124.1
Mining and quarrying	G	78.2	87.7	90.2	92.5	95.1	92.6	85.9	79.5	78.2	83.0	77.5	73.7	80.2
	S	86.0	87.6	86.7	87.3	87.1	86.1	83.6	84.9	83.9	76.8	88.4	75.9	87.1
Manufacturing	G	132.1	132.3	107.2	134.1	138.5	131.1	109.6	102.2	109.3	132.2	127.1	135.0	141.8
	S	123.0	124.2	120.5	124.4	124.8	127.7	123.2	120.0	118.7	124.5	126.2	127.5	130.0
Electric and thermal energy	G	96.5	99.4	97.0	99.0	106.3	112.2	124.3	129.2	119.6	121.7	102.5	100.0	99.6
	S	106.2	104.0	108.0	109.6	108.0	105.5	109.7	113.5	111.4	112.7	110.9	111.6	108.9

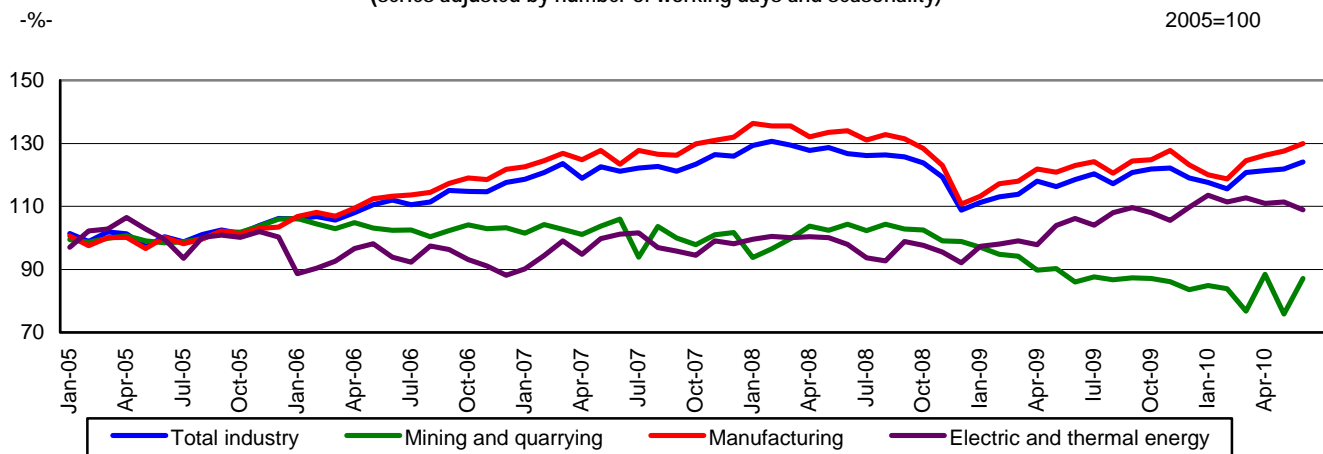
G = gross series; S = series adjusted by number of working days and seasonality

<sup>1)</sup> Rectified data; <sup>1)</sup> Provisional data; see the methodological explanations

#### Monthly evolution of industrial production by CANE Rev. 2 section - January 2005 – June 2010 -

(series adjusted by number of working days and seasonality)

2005=100



## Industrial production indices by broad industrial group

percentages

2005=100

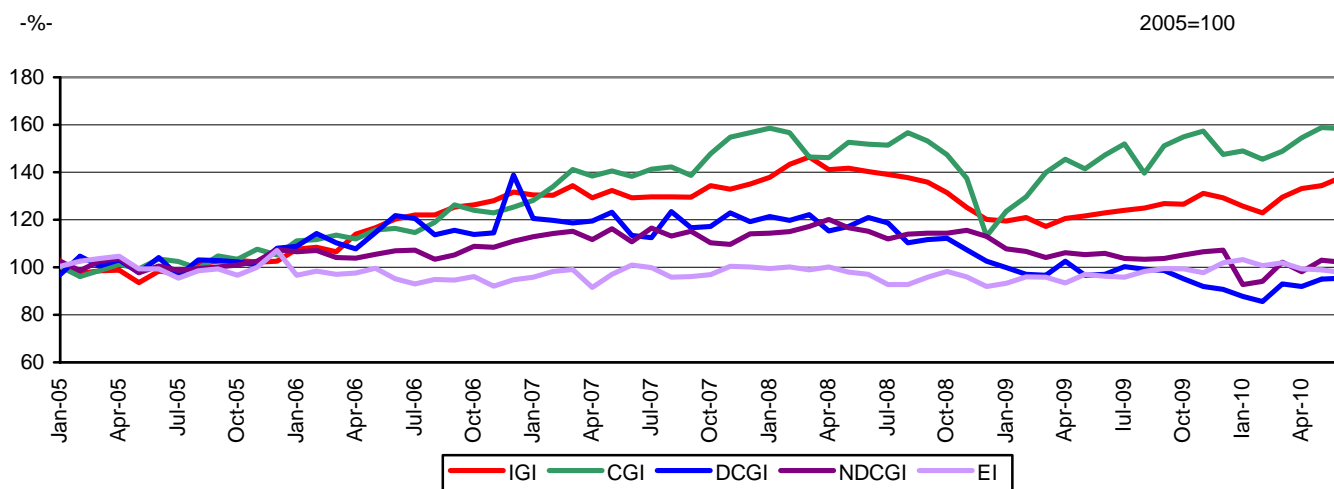
Symbol		Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May <sup>†)</sup>	Jun. <sup>‡)</sup>
		2009							2010					
IGI	G	131.0	136.4	128.1	138.9	140.9	133.3	102.9	99.2	108.4	132.3	135.5	145.8	150.0
	S	122.9	124.0	125.0	126.8	126.6	131.1	129.2	125.8	123.0	129.5	133.2	134.4	137.9
CGI	G	161.6	162.6	99.0	164.0	171.5	161.1	127.4	131.8	140.8	162.6	154.3	163.4	177.2
	S	147.2	151.9	139.6	151.1	154.9	157.3	147.5	149.0	145.5	148.9	154.5	158.8	158.4
DCGI	G	97.4	93.3	89.3	105.3	102.2	98.3	80.3	76.6	83.0	100.8	92.3	96.0	97.0
	S	97.1	100.3	99.2	98.6	95.2	91.9	90.8	87.8	85.6	93.0	92.0	95.1	95.4
NDCGI	G	111.7	106.8	95.0	106.4	113.6	108.8	105.8	79.5	85.8	107.1	97.9	102.1	107.9
	S	105.9	103.7	103.4	103.7	105.3	106.6	107.3	92.8	94.1	102.2	98.1	102.9	102.2
EI	G	90.0	93.8	94.7	95.3	98.6	101.1	108.8	111.1	101.9	108.6	93.1	91.0	91.5
	S	96.2	95.9	98.3	99.4	99.3	97.7	101.9	103.2	100.7	101.9	99.3	98.9	97.9

Intermediate goods industry (IGI); Capital goods industry (CGI); Durable consumer goods industry (DCGI); Non-durable consumer goods industry (NDCGI); Energy industry (EI)

G = gross series; S = series adjusted by number of working days and seasonality

<sup>†)</sup> Rectified data; <sup>‡)</sup> Provisional data; see the methodological explanations

### Monthly evolution of industrial production by broad industrial group - January 2005 – June 2010 - (series adjusted by number of working days and seasonality)



#### June 2010 compared to May 2010

**In June 2010, industrial production (gross series) increased by 4.7%** compared to the previous month due to rises in mining and quarrying (+8.9%) and manufacturing (+5.1%). The production and supply of electric and thermal energy, gas, hot water and air conditioning fell by 0.4%.

According to the breakdown by broad industrial group, increases were recorded for all categories of goods: the capital goods industry (+8.5%), the non-durable consumer goods industry (+5.6%), the intermediate goods industry (+2.9%), the durable consumer goods industry (+1.0%) and the energy industry (+0.5%).

Industrial production (**series adjusted by number of working days and seasonality**) was up 1.9% from the previous month due to rises in mining and quarrying (+14.9%) and manufacturing (+1.9%). The production and supply of electric and thermal energy, gas, hot water and air conditioning was down 2.4%.

According to the breakdown by broad industrial group, increases were recorded in the intermediate goods industry (+2.7%) and the durable consumer goods industry (+0.3%). Decreases were recorded in the energy industry (-1.0%), the non-durable consumer goods industry (-0.7%) and the capital goods industry (-0.3%).

### *June 2010 compared to June 2009*

**In June 2010, industrial production (gross series)** increased by 6.7% compared to the same month of the previous year due to rises in the three industrial sectors: manufacturing (+7.3%), the production and supply of electric and thermal energy, gas, hot water and air conditioning (+3.2%) and mining and quarrying (+2.6%).

According to the breakdown by broad industrial group, increases were recorded in the intermediate goods industry (+14.5%), the capital goods industry (+9.6%) and the energy industry (+1.6%). Decreases were observed in the non-durable consumer goods industry (-3.4%) and the durable consumer goods industry (-0.4%).

Industrial production (**series adjusted by number of working days and seasonality**) was up 4.7% from the same month of the previous year due to rises in manufacturing (+5.7%), the production and supply of electric and thermal energy, gas, hot water and air conditioning (+2.6%) and mining and quarrying (+1.3%).

According to the breakdown by broad industrial group, increases were recorded in the intermediate goods industry (+12.3%), the capital goods industry (+7.6%) and the energy industry (+1.7%). The non-durable consumer goods industry and the durable consumer goods industry fell by 3.5% and 1.8%, respectively.

### *Semester I 2010 compared to semester I 2009*

**In semester I 2010, industrial production (gross series)** increased by 5.6% compared to the same period of the previous year due to rises in the production and supply of electric and thermal energy, gas, hot water and air conditioning (+11.7%) and manufacturing (+5.8%). Mining and quarrying dropped 9.2%.

According to the breakdown by broad industrial group, increases were recorded in the capital goods industry (+11.2%), the intermediate goods industry (+10.1%) and the energy industry (+5.5%). The non-durable consumer goods industry and the durable consumer goods industry fell by 6.1% and 5.9%, respectively.

The industrial production (**series adjusted by number of working days and seasonality**) achieved in semester I 2010 was 4.4% higher compared to the same period of the previous year due to rises in the production and supply of electric and thermal energy, gas, hot water and air conditioning (+11.1%) and manufacturing (+4.6%). Mining and quarrying dropped 9.9%.

According to the breakdown by broad industrial group, increases were recorded in the capital goods industry (+10.6%), the intermediate goods industry (+8.5%) and the energy industry (+5.2%). The durable consumer goods industry and the non-durable consumer goods industry were both down 6.9%.

## Industrial production indices

percentages

		JUNE 2010 compared to:		Sem. I 2010/ Sem. I 2009
		MAY 2010	JUNE 2009	
<b>Industry - total</b>	<b>G</b>	<b>104.7</b>	<b>106.7</b>	<b>105.6</b>
	<b>S</b>	<b>101.9</b>	<b>104.7</b>	<b>104.4</b>
<b>- by section:</b>				
Mining and quarrying	G	108.9	102.6	90.8
	S	114.9	101.3	90.1
Manufacturing	G	105.1	107.3	105.8
	S	101.9	105.7	104.6
Electric and thermal energy	G	99.6	103.2	111.7
	S	97.6	102.6	111.1
<b>- by broad industrial group:</b>				
Intermediate goods industry	G	102.9	114.5	110.1
	S	102.7	112.3	108.5
Capital goods industry	G	108.5	109.6	111.2
	S	99.7	107.6	110.6
Durable consumer goods industry	G	101.0	99.6	94.1
	S	100.3	98.2	93.1
Non-durable consumer goods industry	G	105.6	96.6	93.9
	S	99.3	96.5	93.1
Energy industry	G	100.5	101.6	105.5
	S	99.0	101.7	105.2

Note: G = gross series; S = series adjusted by number of working days and seasonality

### METHODOLOGICAL EXPLANATIONS

1. The **data source** is the PROD (Industrial type products and services) chapter of the monthly statistical survey on short-term indicators in industry (IND TS), in accordance with Council Regulation (EC) No 1165/1998, Regulation (EC) No 1158/2005 of the European Parliament and of the Council, and Commission Regulation (EC) No 1503/2006 concerning short-term statistics.

2. **The statistical survey is a sample survey.** The type of sampling used/the procedure for drawing the sample is the stratified sampling with simple random selection without replacement within each stratum, where the stratification variables are the following: economic activity and enterprise size class according to the number of employees. Due to the need for the comparability of results by group of homogenous activities as well as at enterprise level from one period to the next, the category of economic operators with a high economic potential (50 or more employees) is surveyed exhaustively. The sampling frame ensures a representativeness (calculated according to turnover) of 92.17% of the total number of active units. The data are collected from approximately 9000 economic operators whose main activity is in the field of industry. The maximum accepted estimation error is  $\pm 3\%$ .

### 3. Concepts and definitions

The industrial production index is known as an output index or a production volume index which aims to identify the changes in the production volume.

Industrial production indices measure the evolution of production overall, by CANE Rev. 2 section (mining and quarrying, manufacturing and the production and supply of electric and thermal energy, gas, hot water and air conditioning) and division (divisions 05÷35, excluding group 353) as well as by broad industrial group. The degree of coverage for industry overall is 87.7%.

**The nomenclatures used in the calculation of the industrial production index are:**

- *Classification of Activities of the National Economy* (CANE Rev. 2)
- *Classification of Products and Services related to Activities* (CPSA 2008)
- *Broad industrial groups* (intermediate goods industry, capital goods industry, durable consumer goods industry, non-durable consumer goods industry, energy industry), which represent an aggregate nomenclature of CANE Rev. 2 divisions or groups used in European statistics to characterise industry according to the purpose of the goods produced

The intermediate goods industry includes the following CANE Rev. 2 divisions and groups, respectively: 07, 08, 09, 106, 109, 131, 132, 133, 16, 17, 201, 202, 203, 205, 206, 22, 23, 24, 255, 256, 257, 259, 261, 268, 271, 272, 273, 274, 279.

The capital goods industry includes the following CANE Rev. 2 divisions and groups, respectively: 251, 252, 253, 254, 262, 263, 265, 266, 28, 29, 301, 302, 303, 304, 325, 33.

The durable consumer goods industry includes the following CANE Rev. 2 divisions and groups, respectively: 264, 267, 275, 309, 31, 321, 322.

The non-durable consumer goods industry includes the following CANE Rev. 2 divisions and groups, respectively: 101, 102, 103, 104, 105, 107, 108, 11, 12, 139, 14, 15, 18, 204, 21, 323, 324, 329.

The energy industry includes the following CANE Rev. 2 divisions and groups, respectively: 05, 06, 19, 351, 352.

• *PRODROM (Nomenclature of industrial products and services)* - used in the collection of data on industrial production; it is fully harmonised with the nomenclature used in EU countries, namely the PRODCOM list. The positions within the PRODROM nomenclature result from the detailed elementary subclasses of CPSA 2008. All PRODROM positions are at the same denomination level, the potential groups requested for analysis and dissemination purposes being obtained by means of processing, on the basis of the structuring criteria used to define each position.

The nomenclature of industrial products (PRODROM) includes approximately 3500 products and characterises the industrial activities under CANE Rev. 2 sections B, C and D.

The CPSA elementary subclass level is the first level in the calculation of the IPI. The approximately 3500 PRODROM products are aggregated into 1100 CPSA elementary subclasses, of which 710 are taken into account for the calculation of the IPI.

• *Nomenclature of economic operators* - it monthly provides data on physical industrial production; it includes a representative sample of enterprises whose main activity is in the field of industry (CANE Rev. 2: 05÷35) and is made up of all enterprises with 50 or more employees and of a sample of enterprises whose number of employees ranges from 4 to 49, so as to ensure a degree of representativeness of approximately 90% for industry overall and at least 80% at the level of CANE Rev. 2 divisions, representativeness calculated on the basis of turnover.

In order for food industry to be better represented, due to the specific nature of this sector, the sample of industrial enterprises also includes the trading companies whose main activity is in the field of agriculture but which have subunits specialised in making agro-food products.

#### 4. Calculation algorithm

The aggregation of the primary indices of industrial production is made through a system of successive weightings, using, for the aggregation at the level of CPSA elementary subclasses (the higher aggregation level of PRODROM), the unit average price of the base year (2005) and, for the higher aggregation levels (CANE Rev. 2 class, group, division, section or broad industrial group), as a weighting element, the base-year (2005) gross value added at factor cost (GVAFC), according to the results of the Structural Business Survey of the base year (2005). The first aggregation level is the CANE Rev. 2 class level, the next aggregation levels being determined as an arithmetic mean of the indices of CANE Rev. 2 classes, groups, divisions, sections and broad industrial groups, weighted by the corresponding base-year (2005) GVAFC. The indices for the broad industrial groups are obtained by aggregating the indices at the level of CANE Rev. 2 component groups, weighted by the corresponding GVAFC. The industrial production indices for industry overall are obtained by aggregating the indices calculated at the level of CANE Rev. 2 divisions.

5. Beside the gross indices of industrial production, **indices adjusted by number of working days and seasonality** are also calculated on a monthly basis, through the **regression method**, a method recommended by the European regulations concerning short-term indicators (Council Regulation No 1165/1998).

In order to adjust the series, the DEMETRA package of programmes (the TRAMO/SEATS method) was used, which estimates the effect of the different number of working days from one month to another and the calendar effect (the Orthodox Easter, the leap year and other national holidays), identifies and corrects the extreme values (the occasional, transitory or permanent level changes) and interpolates the missing values.

The series adjusted by number of working days was obtained by eliminating these effects from the gross series, with the help of correction coefficients established depending on the regression model used (additive or multiplicative).

The regression models used for each series are established at the beginning of each year and involve the recalculation of the adjusted series calculated the previous year (recalculation due to changes in the models adopted, in the number of regressors used and in the number of available observations).

The adjustment of the aggregated levels was made using the **direct method** which involves the direct adjustment of the aggregated series. The use of the direct method may lead to inconsistencies in the data series (namely, the aggregates are not always comprised between the values of the components they come from).

6. The data are **provisional and can be revised periodically** on the basis of rectifications performed retroactively by the economic operators included in the sample.

*You can find more information in the following statistical publications: Monthly Statistical Bulletin and Industry Statistical Bulletin (deadline August 12, 2010).*

*Data comparable with those of the other EU Member States can be obtained from the Eurostat press release which comes out on Thursday, August 12, 2010 and which can be consulted at the following address:*

<http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>

The next press release will be issued on Wednesday, September 8, 2010.