Industrial Turnover Indices
Industrial New Orders Received Indices
Base 2010

Methodological Manual

January 2015
Subdirección General para la Estadística de la Industria y de los Precios
## Index

1. Introduction

2. Definitions
   - Industrial Turnover
   - Industrial Orders and New Orders Received
   - Subcontracting
   - Treatment of subcontracting in turnover
   - Treatment of subcontracting in new orders received

3. Survey scope
   3.1 Population scope
   3.2 Time scope
   3.3 Geographical scope

4. Framework, information unit and sample
   4.1 Survey framework
   4.2 Informant unit and information unit
   4.3 Sample

5. Information collection

6. Base year and reference years

7. New National Classification of Economic Activities. CNAE-09

8. Formulation of the Indices
   8.1 Basic indices
   8.2 Weights
   8.3 Aggregate Indices

9. Industrial Turnover Indices and Industrial New Orders Received Indices adjusted for seasonal and calendar effects
   9.1 Indices adjusted for calendar effects
   9.2 Indices adjusted for seasonal and calendar effects

Annex I: Population scope according to the National Classification of Economic Activities, CNAE-09

Annex II: Classification of the industrial sectors by economic destination of the goods
1. Introduction

The Industrial Turnover and Industrial New Orders Received Indices statistical operations began to be compiled as part of the action programme for the Development of the Statistical System on Industry compiled by Eurostat, at first pursuant to (EC) Council Regulation no. 1165/98, of 19 May 1998 regarding short-term statistics. The objective of this Regulation is the creation of a common framework for the production of community statistics regarding the short-term evolution of the economic cycle.


Commission Regulation (EU) no. 461/2012, of 31 May 2012, passes the suppression of the variables for industrial new orders received, and therefore, since its entry into force, the Industrial New Orders Received Indices statistics are no longer compulsory for the different Member States of the European Union. Despite this, this statistical operation remains compulsory on a national level, as it is included in the 2013-2016 National Statistical Plan (Royal Decree 1658/2012, of 7 December).

The Industrial Turnover Indices (ITI) have the objective of measuring the evolution of the activity of companies included in the industrial sector in Spain, through their turnover. The Industrial New Orders Received Indices (INORI), in turn, have the objective of measuring the evolution of the activity of companies included in the industrial sector in Spain, through the future demand aimed at the industrial branches. Both the ITI and the INORI are value indicators, in other words, they measure the joint evolution of quantity, quality and price.

The fact that the new orders received by the companies first lead to production and then to sales, causes the INORIs to constitute an advance indicator of what will occur in the economy on the short term, providing a fairly complete view of the evolution of the industrial short-term on analysing them jointly with the Industrial Production Indices (IPI), with the Industrial Turnover Indices (ITI) and with the Industrial Price Indices (IPRI).
2. Definitions

Conceptually, Turnover is comprised the invoicing of a company, in monetary terms, due to the sale of industrial goods and services provided to third parties. In turn, New Orders Received is the amount invoiced or to be invoiced for the same reasons, according to those orders that have been received and definitively accepted.

These two indicators, together with the Industrial Production Index, whose objective is to measure the evolution of the volume of production generated by the industrial branches, and which conceptually includes the production actually carried out, constitute three basic short-term industrial indicators.

Thus, the time occurrence of the business activity, as related to the business, may be expressed in the following way:

```
Orders  ➔  Production  ➔  Sales
```

From this perspective, the INORI may be considered a preview indicator of the IPI, and the latter of the ITI. Given the nature of these statistical indicators, the time evolution of the same refers solely to the products manufactured by domestic industries.

– **Industrial Turnover**

This corresponds to the value of the invoicing of the establishment, in the reference month, for the sales of industrial goods and provision of industrial services, considering both those carried out by the establishment itself, and those performed through subcontracting with third parties. It therefore includes the income from the sales of finished products, of semi-finished products, of sub-products, of waste and recovered materials, of packages and packaging and of merchandise (goods acquired for resale in the same state as that in which they were acquired), as well as the income from the provision of services related to the ordinary activity of the establishment.

From the definition of turnover, we exclude VAT and other taxes on the operation, as well as returns on sales. We should also exclude price reductions, sales and applied discounts, bearing in mind that those granted to the client after the sale, for example, at the end of the year, should not be considered. This shall also not include those subsidies received from the Public Administrations and Institutions of the European Union.

The value of turnover shall include all those amounts charged to the client (transport, packaging, etc.), even where invoiced separately.

From a practical perspective, the definition is deduced from the accounting definitions used by companies in the General Accounting Plan (GAP), and is completely harmonised with that of the Industrial Companies Survey, and therefore with the ESA-2010 of the National Accounts.
– **Industrial Orders and New Orders Received**

An Order is defined as the value of the agreement, irregardless of the form in which it is adopted (verbal, written, etc.), by which the establishment agrees to supply some goods or to provide some industrial services to a third party, whether they have been performed by the producer or through subcontracting. The order is accepted if, by the judgment of the producer, there is sufficient proof that it is a valid agreement. As the order implies a future sale of goods and services, the headings to be considered in its definition are the same as those of the turnover.

It considers the Industrial New Orders Received to be the value of the orders received and firmly accepted by the observation unit during the reference period. The terms Orders Received and New Orders Received are considered to be equivalent throughout this document.

– **Subcontracting**

According to the National Classification of Economic Activities, CNAE-09, the term subcontracting refers to the contractual agreement according to which the principle asks the contractor to carry out certain specific tasks, such as part of the production process, or even the entire production process, the services relating to human resources or certain support services.

The contractors, that is, those units that carry out an activity for third parties, are classified in general, with the units that produce the actual goods and services freelance, except in trade and construction. The term subcontractor is also used.

In the manufacturing industry, the principle provides the contractor with the technical specifications for the manufacturing activity to be carried out over the input material. The input material (raw materials or intermediate products) may be provided by (that is, property of), the principle or not.

**Classification of the principle and of the contractor**

- A principle that completely subcontracts the transformation process must be classified in the manufacturing industry solely if s/he is the owner of the raw material used as input in the production process (and therefore, is also the owner of the final product).
- A principle that subcontracts only part of the transformation process is classified in the manufacturing industry.
- In the remaining cases, the principles must be classified according to the principle of added value: this might be in section G (Wholesale and retail trade; repair of motor vehicles and motorcycles) or in other sections.

In the case of the subcontracting of providing labour, this must distinguish between temporary and permanent subcontracting:

- In temporary subcontracting, the principle is classified based on the activity s/he actually carries out (for example, the manufacturing industry). The contractor is classified in class 78.20 Activities of temporary employment agencies.
- In long-term subcontracting, the principle is classified based on the activity s/he actually carries out (for example, the manufacturing industry). The contractor is classified in class 78.30 Another provision of human resources.
– **Treatment of subcontracting in turnover**

The treatment of subcontracting in turnover is the following: the principle contractor should consider turnover to be that income obtained from the sales of products manufactured by the subcontractor; the subcontractor should include, in its turnover, the amounts invoiced for the services provided under subcontracting.

This treatment therefore produces a dual accounting, as the services provided and the sales of products are considered by both units (principle and subcontractor) in their turnover. This problem cannot be resolved, as it is considered a priority that the surveyed units respond in accordance with the accounting principles, so as to enable responding.

– **Treatment of subcontracting in new orders received**

The treatment of subcontracting in orders, as that performed for turnover, shall be the following: the principle contractor should consider an order to be that which has the objective of supplying products manufactured by the subcontractor; on the other hand, the subcontractor should consider an order to be the industrial services it is to provide through subcontracting.

As a consequence of this treatment, the same problem of dual accounting arises as that mentioned above for turnover.
3. Survey scope

3.1. Population scope

The population scope of the Industrial Turnover Indices and the Industrial New Orders Received Indices in CNAE-09 is comprised of the units of economic activity whose main activity is included in sections B "Extractive industries" (except divisions 07 and 09, as they are not relevant in Spanish industry) and C "Manufacturing industry" of CNAE-2009. Annex 1 presents the listing of industrial activities that comprise the population scope.

3.2. Time scope

The reference period of both indices is monthly.

3.3. Geographical scope

The Indices provide data on a national level and by Autonomous Community, not including Ceuta and Melilla.
4. Framework, information unit and sample

4.1. Survey framework

The framework of the Survey is the Central Business Directory (DIRCE). This is an organised information register with data on identification, localisation, territorial distribution and classification by size and economic activity of the units company and establishment types, obtained through administrative sources and updated with other information from the current statistical operations of the INE.

4.2. Informant unit and information unit

The information unit is that for which the information of the statistics is requested. The Council Regulation on short-term statistics (Regulation no. 1165/98) establishes that the basic statistical unit (or information unit) is the economic activity unit. For ITI-INORI, this is defined as that which performs a single activity, on a level to four digits of CNAE-2009, included in sections B and C.

Facing the lack of administrative registers to break down this type of unit, the information unit of the ITI-INORI is the establishment (productive unit located in a place which is topographically delimited (workshop, mine, factory, warehouse, shop, office etc.) from where the economic activities that one or more persons from the same company dedicate their work to are carried out).

The information unit to which the questionnaires are sent may be the establishment itself or the company, so long as the company provides the information broken down for each establishment.

4.3. Sample

For the purpose of making the results of the ITI and the INORI comparable with those of the IPI, and to thus have a joint vision available of the activity of the industrial sector, the sample selected initially for ITI-INORI was the same as that existing at that time in the IPI. Nevertheless, it must be considered that the population scope of the IPI is broader, as it includes companies whose activity is classified in section D of CNAE-09 (Supply of electrical energy, steam and air conditioning).

Moreover, it is important to bear in mind that, although the initial sample of this survey has begun with that of the IPI, differences may have arisen between the two, over time, due to different reasons, such as the case of an establishment that stops manufacturing products included in the basket of products selected in the IPI (in this case, the establishment will have caused a delisting in the IPI, but this needs not have occurred in the sample of the Industrial Turnover and Industrial New Orders Received Indices).

The sample size of the ITI and the INORI is approximately 11,000 establishments.
5. Information collection

The information collection is carried out through the Provincial Delegations and the Central Services of the INE. The collection system is through the completion of a monthly questionnaire by the informant of the establishment.

Respondents may use different means for returning the completed questionnaires (Internet via the IRIA system, electronic questionnaire via e-mail, post or fax).

The following table presents that tasks undertaken in each phase prior to the publication of results, and the periods during which they are carried out.

<table>
<thead>
<tr>
<th>Task to carry out</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing of questionnaires to the informant units</td>
<td>Last week of month t</td>
</tr>
<tr>
<td>Arrival of questionnaires at the delegation</td>
<td>As of day 1 of month t+1</td>
</tr>
<tr>
<td>Recording and filtering</td>
<td>Continuously from receipt onwards</td>
</tr>
<tr>
<td>Receipt of questionnaire at Central Services</td>
<td>For each reference month (t), the Central Services receive three different dispatches, the first near the 15th day of t+1, the second near the 27th day of t+1 and the third near the 8th day of t+2</td>
</tr>
<tr>
<td>Selective filtering, calculation of indices</td>
<td>As of the first dispatch received in the Central Services</td>
</tr>
<tr>
<td>Publication of results</td>
<td>According to the short-term statistics availability calendar of the INE, approximately 48 days after the reference month</td>
</tr>
</tbody>
</table>
6. Base year and reference years

Council Regulation (EC) no. 1165/98, of 19 May 1998, regarding short-term statistics, amended, among others, by Regulation (EC) no. 1158/2005 of the European Parliament and Council, of 6 July 2005, requires that the indices change base every five years, with the base years being those ending in zero and in five. All indices must adapt to the new base year within a period of three years as of the end of the said new base year.

In the Industrial Turnover and Industrial New Orders Received Indices, the base year (that in which the arithmetic average of the indices of the twelve months is equal to 100) is the same as the reference period (that regarding which the comparisons are made of the different situations, and which is chosen for the calculation of the basic indices) is the same.

The Industrial Turnover Indices and Industrial New Orders Received Indices began to be disseminated in base 2010 in March 2013, coinciding with the publication of the data for January 2013.
7. National Classification of Economic Activities. CNAE-09

The European Parliament and Council passed the new classification of economic activities for statistical purposes within the European Union, known as NACE Rev.2, on 20 December 2006, via Regulation (EC) no. 1893/2006. This Regulation also stipulates the use of the new classification in the statistics of the community scope, for the purpose of ensuring the harmonised implementation of the same. Within these statistics we find the short-term statistics, which include the Industrial Turnover and Industrial New Orders Received indices.

The adaptation to the new European classification (NACE Rev.2) and the domestic version of the same (CNAE-2009) caused changes in these indicators. For some activities, the new classification only caused a change in code, and not in content; in other cases, some activities have changed to belong to different branches or sectors.

On 29 May 2008, Commission Regulation (EC) no. 472/2008 was passed, regarding the transfer to NACE Rev.2 of the short-term statistics, where the European guidelines were established for the dissemination of results in the new classification. Pursuant to this Regulation, beginning with reference month January 2009, publication began of the indices in the new classification, CNAE-2009.
8. Formulation of the Indices

Both the Industrial Turnover Indices and the Industrial New Orders Received Indices are value indices, that is, they measure the joint evolution of quantity, quality and price. Unlike what occurs with the Industrial Production Indices (IPI) or the Industrial Price Indices (IPRI), these indices are not based on a basket of representative products, but rather, the fundamental variable for their compilation is the main activity of the establishment.

The formula used to calculate the ITI and INORI, base 2010, is the fixed-base Laspeyres formula, in which, each month, the situation of the current month is compared, both in invoicing and in orders received, with the average of the twelve months of the year 2010.

8.1 Basic indices

A basic aggregate is the lowest grouping component for which indices are obtained, and whose calculation entails no weightings. The indices of these aggregates are known as basic indices.

In the Industrial Turnover and Industrial New Orders Received Indices, we calculate a basic index for the crossing of each Autonomous Community with the following divisions (two digits), or set of groups (three digits) of sections B and C of CNAE-09.
<table>
<thead>
<tr>
<th>Divisions or set of groups</th>
<th>CNAE-2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Extraction of anthracite, coal and lignite</td>
<td>05</td>
</tr>
<tr>
<td>- Extraction of crude petroleum and natural gas</td>
<td>06</td>
</tr>
<tr>
<td>- Other mining and quarrying</td>
<td>08</td>
</tr>
<tr>
<td>- Food industries (except grain mill products and animal feeds)</td>
<td>101+102+103+104+105+107+108</td>
</tr>
<tr>
<td>- Manufacture of grain mill products, starches and starch products, and of animal feeds</td>
<td>106+109</td>
</tr>
<tr>
<td>- Manufacture of beverages</td>
<td>11</td>
</tr>
<tr>
<td>- Manufacture of tobacco</td>
<td>12</td>
</tr>
<tr>
<td>- Preparation and spinning of textile fibres. Manufacture of woven textiles. Textile finishing</td>
<td>131+132+133</td>
</tr>
<tr>
<td>- Manufacture of knitted fabrics, carpets, rope, non-woven fabrics, textile products for technical and industrial use and other textile products</td>
<td>139</td>
</tr>
<tr>
<td>- Manufacture of garments</td>
<td>14</td>
</tr>
<tr>
<td>- Leather and footwear industry</td>
<td>15</td>
</tr>
<tr>
<td>- Wood and cork industry; except furniture, basketmaking and wickerwork</td>
<td>16</td>
</tr>
<tr>
<td>- Paper industry</td>
<td>17</td>
</tr>
<tr>
<td>- Graphic arts and reproduction media</td>
<td>18</td>
</tr>
<tr>
<td>- Manufacture of coke and refined petroleum products</td>
<td>19</td>
</tr>
<tr>
<td>- Manufacture of cleaning articles, perfumes and cosmetics</td>
<td>204</td>
</tr>
<tr>
<td>- Chemical industry except cleaning articles, perfumes and cosmetics</td>
<td>201+202+203+205+206</td>
</tr>
<tr>
<td>- Manufacture of pharmaceutical products</td>
<td>21</td>
</tr>
<tr>
<td>- Manufacture of rubber and plastic products</td>
<td>22</td>
</tr>
<tr>
<td>- Manufacture of other non-metallic ore products</td>
<td>23</td>
</tr>
<tr>
<td>- Metallurgy, manufacture of iron, steel and ferro-alloy products</td>
<td>24</td>
</tr>
<tr>
<td>- Manufacture of metal elements for construction, containers made of metal, steam generators, weapons and ammunition</td>
<td>251+252+253+254</td>
</tr>
<tr>
<td>- Forging, stamping, embossing and rolling of metals. Manufacture of tools, hardware goods, containers and other metal products</td>
<td>255+256+257+259</td>
</tr>
<tr>
<td>- Manufacture of electronic components, assembled printed circuits, and magnetic and optical media</td>
<td>261+268</td>
</tr>
<tr>
<td>- Manufacture of computers, peripherals and telecommunications equipment; appliances for measuring and navigation; radiation and electro-medical equipment</td>
<td>262+263+265+266</td>
</tr>
<tr>
<td>- Manufacture of consumer electronics, optical instruments and photographic equipment</td>
<td>264+267</td>
</tr>
</tbody>
</table>

13
Manufacture of household appliances 275
- Manufacture of machinery and equipment, n.e.c. 28
- Manufacture of motor vehicles, trailers and semi-trailers 29
- Naval, railway, aeronautical and spacecraft construction, and manufacture of combat vehicles 301+302+303+304
- Manufacture of motorcycles, bicycles, vehicles for disabled persons and other transport material n.e.c. 309
- Manufacture of furniture 31
- Manufacture of jewellery, costume jewellery and musical instruments 321+322
- Manufacture of sporting goods; games and toys and other manufacturing industries n.e.c. 323+324+329
- Manufacture of medical and dental instruments and supplies 325
- Repair and installation of machinery and equipment 33

The basic indices of the ITI and the INORI are calculated according to the following formula:

\[
I_{ij}^{mt} = \frac{\sum_{m=1}^{12} \sum_{j} f_{ij,m,2005}^{f}}{12} \times 100
\]

Where:

- \(I_{ij}^{mt}\) is the index, referring to the year 2010, of basic aggregate \(i\), in the month \(m\) of year \(t\)
- \(f_{ij,m}\) is the value, measured in monetary terms, of the invoicing (or of the new orders received, if it is the INORI) of establishment \(j\), which corresponds to the basic aggregate (crossing the activity with the Autonomous Community) \(i\)
- \(\sum_{m=1}^{12} \sum_{j} f_{ij,m,2005}^{f}\) is the value, in monetary terms, of the average invoicing (or the average value of the new orders, if it is the INORI) from the year 2010, of group of establishments \(j\) corresponding to the basic aggregate (crossing the activity with the Autonomous Community) \(i\)

Given that the series has been recalculated since January 2002, in base 2010, the formula described applies from said month onwards.

However, in practice, the calculation process of the basic indices should consider the possibility that in the month of process there may be establishments that have been registered and others that have been delisted, since the sample (panel) stays the same throughout time, so as to ensure coverage.
For the purpose of establishing homogeneous time comparisons, the information used in the calculation of the basic index is that provided by the establishments that have collaborated for two consecutive months. Thus, the monthly variation rate of the invoicing or the new orders from the crossing of each activity with each Autonomous Community is calculated with the information of common establishments in the current month and the previous month.

Therefore, the basic index is obtained by applying the monthly variation rate of the invoicing (or order received, if dealing with the INORI) of the establishments that have collaborated during the current month and the previous month:

\[
2005 I_{i}^{\text{mt}} = 2005 I_{i}^{\text{m-1t}} \times \frac{\sum_{j} f_{j,i}^{\text{mt}}}{\sum_{j} f_{j,i}^{\text{m-1t}}}
\]

Where:

- \(2005 I_{i}^{\text{mt}}\) is the index, referring to the year 2010, of basic aggregate \(i\) in month \(m\) of year \(t\).
- \(2005 I_{i}^{\text{m-1t}}\) is the index, referring to the year 2010, of basic aggregate \(i\) in month \(m-1\) of year \(t\).
- \(f_{j,i}^{\text{mt}}\) is the value of invoicing (or of new orders received) in month \(m\) of year \(t\) of establishment \(j\) belonging to basic aggregate \(i\).
- \(f_{j,i}^{\text{m-1t}}\) is the value of invoicing (or of new orders received) in month \(m-1\) of year \(t\) of establishment \(j\) belonging to basic aggregate \(i\).

8.2 Weights

The weights that are involved in the calculation of the aggregate indices are obtained with the data from the Industrial Companies Survey. This structural, annual survey has the fundamental objective of providing information that is precise, reliable and opportune, for the different sectors that constitute industrial activity.

The weights of each basic aggregate represent the relation between the value of the invoicing or turnover of the industrial activity/ies that comprise that basic aggregate, and the total of the invoicing of the industries that comprise the population scope of those indices (sections B and C of CNAE-09).

\[
W_{i} = \frac{\text{Turnover of the activities of basic aggregate } i \text{ in the year 2005}}{\text{Total turnover of the extractive and manufacturing industries (Sections B and C), 2005}}
\]

Because we do not have annual statistics that provide data regarding new orders received, the weights used to obtain the aggregate indices of the INORI are also calculated as the relation of the value of the invoicing of that basic aggregate over the total invoicing. On the other hand, the fact that the
time occurrence of the orders is before that of the sales, and that they are defined based on the same concepts, justifies this choice.

From these weights, we obtain the weights of the different functional aggregates: divisions that are not basic aggregates, sections B and C. Weights are also obtained for the sectors, by economic destination: consumer goods (durable and non-durable consumer goods), capital goods, intermediate goods and energy, and those from the Autonomous Communities. The weight of each functional aggregate, by economic destination or by Autonomous Community, is obtained as the sum of the weights of the basic aggregates that comprise them:

\[ w_d = \sum_{i \in A} W_i \]

### 8.3 Aggregate indices

The index, base 2010, of any functional aggregation (divisions that are not basic aggregates, sections B and C and general) or economic sectors by economic destination (durable consumer goods, non-durable consumer goods, capital goods, intermediate goods and energy) or Autonomous Community, is obtained as the aggregation of the indices of the basic aggregates belonging to said aggregation, with the corresponding weights obtained by using the Industrial Companies Survey (ICS) for the year 2010.

\[ I_{A,mt}^{2005} = \sum_{i \in A} I_{i,mt}^{2005} \times W_i^{CNAE09} \]

Where:

- \( I_{A,mt}^{2005} \) is the index, referring to the year 2010, of aggregate A, in month m of year t.
- \( I_{i,mt}^{2005} \) is the index, referring to the year 2010, of basic aggregate i, corresponding to aggregation A in month m of year t.

\[ W_i = \frac{\text{Turnover of the activities in CNAE – 09 for basic aggregate in the year 2005}}{\text{Total turnover of the activities in CNAE – 09 for aggregate A in the year 2005}} \]
9. Industrial Turnover Indices and Industrial New Orders
Received indices, adjusted for seasonal and calendar effects

The Industrial Turnover Indices and Industrial New Orders Received Indices are published in base 2010 and adjusted for seasonal and calendar effects.

These indicators were already published in base 2005 adjusted for calendar effects, but it is with in new base 2010 where, for the first time, they are also published adjusted for seasonal effects.

The seasonal adjustment of these indicators has been carried out in accordance with the INE Standard for the correction of seasonal effects and calendar effects in short-term series. This standard is the result of the INE Seasonal Adjustment Work Group, which was created by the Board of Management of the INE in May 2012, and follows the recommendations of the European Union provided for in ESS guidelines on seasonal adjustment.

9.1 Indices adjusted for calendar effects

The European Regulation regarding short-term statistics, for the purpose of harmonising all of the indicators compiled by the different European Union countries and achieving the greatest comparability possible, asks that the indices be provided in net terms, that is, eliminating the calendar effect, among others.

The calendar effect is defined as the impact produced in the time series of a variable, due to the different structure that the months (or quarters) present in the different years (in both length and composition), even if the remaining factors influencing said variable remain constant.

The length of the month is not completely absorbed by the seasonal component, since the number of days in February is not the same each year. This non-seasonal part of the component of the length of the month must be eliminated in the series adjusted for the calendar effect.

On the other hand, the composition of the month refers to the variations in Industrial Turnover and in Industrial New Orders Received caused by the different number of public holidays in the same month in different years.

The method used to adjust calendar effects is based on regARIMA models (regression models with stationary ARIMA errors), following the INE Standards and Eurostat recommendations. Particularly, regARIMA models with four centred intervention variables have been used for the calendar effect covering the three following effects:

a) Effect of working days.

The adjustment for the effect of working days has been carried out with the design of an intervention variable based on the characteristics of industry in Spain.
This variable is created, bearing in mind the working calendars as of the year 1992, and is created, following the same structure used in the TRAMO-SEATS programme for the creation of its Trading Day series. For the purpose of including the entirety of the public holidays, on both national and Autonomous Community levels, the latter are weighted by the weights of each Autonomous Community in the ITI for each activity.

b) Effect of the Easter Holiday.

The intervention variables to cover the effect of the Easter holiday represent the public holidays and working days, respectively, of the Easter holiday.

This has considered that the different Autonomous Communities celebrated either the Thursday before Easter, or Easter Monday, or both, weighting these days according to the weight of each Autonomous Community in the ITI for the activity.

c) Effect of the leap year.

The intervention variable that covers the effect of the leap year distinguishes those months of February that have 29 from the remaining months of February.

9.2 Indices adjusted for seasonal and calendar effects

Once the calendar effects are adjusted, a further step is taken and the indices of seasonal effects are adjusted. Seasonal fluctuations are movements that occur with a similar intensity each month, each quarter or each season of the year, and which are expected to continue occurring.

Seasonally adjusted series, that is, those that are adjusted for seasonal and calendar effects, provide an estimate of what is "new" in a series (change in the trend, the cycle and the irregular component).

The time series analysis methodology recommends a periodical revision of the models, in order to incorporate the most current information. This leads to the series adjusted for calendar and seasonal effects always being provisional.
Annex I

Population scope according to National Classification of Economic Activities CNAE-09
The scope of application of the Industrial Turnover and Industrial New Orders Received Indices are sections B (Extractive Industries) and C (Manufacturing Industry) of CNAE-09.

B. Extractive industries

The extractive, or mining and quarrying, industries include the extraction of minerals occurring naturally: solid (coal and metal ores), liquid (petroleum) or gaseous (natural gas). Extraction can be achieved by different methods, such as underground or surface mining, well operation, seabed mining, etc.

This section includes those supplementary activities intended for preparing the raw materials for their commercialisation, such as breaking, crushing, cleaning, drying, classifying and concentrating minerals, liquifying natural gas and agglomerating solid fuels.

Of the five divisions that comprise section B of the extractive industry, only three belong to the scope of application of these indicators, as they are not relevant in Spanish industry, divisions 07 (extraction of metallic minerals) and 09 (extractive industry support activities) are not studied.

C. Manufacturing industries

This section includes the physical or chemical transformation of materials, substances or components into new products, even though this condition cannot be considered a universal and sole criterion for its definition. The materials, substances, or components transformed are raw materials that are products of agriculture, livestock rearing, forestry, fishing, mining or quarrying activities or other manufacturing activities. Any substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

The output of a manufacturing process may be finished, if it is ready for use or consumption, or it may be semi-finished, if it is to become an input for further manufacturing.

The manufacture of specialised parts and components of machinery and equipment, and accessories thereof, is generally classified in the same class as the manufacture of the machinery and equipment for which said parts and accessories are intended.

Assembly of the component parts of manufactured products is considered manufacturing. This includes the assembly of manufactured products from either self-produced or purchased components.

The following table presents the divisions of sections B Extractive industries and C Manufacturing industry, which are part of the scope of application of the Industrial Turnover and Industrial New Orders Received Indices.
### Population scope according to CNAE-09

#### B. Mining and quarrying industries

<table>
<thead>
<tr>
<th>Division</th>
<th>Industry Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>Extraction of anthracite, coal and lignite</td>
</tr>
<tr>
<td>06</td>
<td>Extraction of crude petroleum and natural gas</td>
</tr>
<tr>
<td>08</td>
<td>Other mining and quarrying</td>
</tr>
</tbody>
</table>

#### C. Manufacturing industry

<table>
<thead>
<tr>
<th>Division</th>
<th>Industry Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Food industry</td>
</tr>
<tr>
<td>11</td>
<td>Manufacture of beverages</td>
</tr>
<tr>
<td>12</td>
<td>Manufacture of tobacco</td>
</tr>
<tr>
<td>13</td>
<td>Textile industry</td>
</tr>
<tr>
<td>14</td>
<td>Manufacture of garments</td>
</tr>
<tr>
<td>15</td>
<td>Leather and footwear industry</td>
</tr>
<tr>
<td>16</td>
<td>Manufacture of wood and of products of wood and cork, except furniture; basketmaking and wickerwork</td>
</tr>
<tr>
<td>17</td>
<td>Paper industry</td>
</tr>
<tr>
<td>18</td>
<td>Graphic arts and reproduction of recorded media</td>
</tr>
<tr>
<td>19</td>
<td>Manufacture of coke and refined petroleum products</td>
</tr>
<tr>
<td>20</td>
<td>Chemical industry</td>
</tr>
<tr>
<td>21</td>
<td>Manufacture of pharmaceutical products</td>
</tr>
<tr>
<td>22</td>
<td>Rubber and plastic material transformation industry</td>
</tr>
<tr>
<td>23</td>
<td>Manufacture of other non-metallic ore products</td>
</tr>
<tr>
<td>24</td>
<td>Metallurgy; manufacture of iron, steel and ferro-alloy products</td>
</tr>
<tr>
<td>25</td>
<td>Manufacture of metal products, except machinery and equipment</td>
</tr>
<tr>
<td>26</td>
<td>Manufacture of computer, electronic and optical products</td>
</tr>
<tr>
<td>27</td>
<td>Manufacture of electrical material and equipment</td>
</tr>
<tr>
<td>28</td>
<td>Manufacture of machinery and equipment n.e.c.</td>
</tr>
<tr>
<td>29</td>
<td>Manufacture of motor vehicles, trailers and semi-trailers</td>
</tr>
<tr>
<td>30</td>
<td>Manufacture of other transport material</td>
</tr>
<tr>
<td>31</td>
<td>Manufacture of furniture</td>
</tr>
<tr>
<td>32</td>
<td>Other manufacturing industries</td>
</tr>
<tr>
<td>33</td>
<td>Repair and installation of machinery and equipment</td>
</tr>
</tbody>
</table>
Annex II

Classification of the industrial sectors by economic destination of the goods
Regulation no. 1165/98 and subsequent modifications (no. 1158/2005, no. 1893/2006) establish the series that should be calculated by economic destination of the goods.

The definition of industrial sectors by economic destination of the goods, based on NACE Rev.2 (and its domestic version, CNAE-09), is established in Commission Regulation no. 656/2007, of 14 June 2007. Said Regulation modifies the previous Commission Regulation no. 586/2001, which established the industrial sectors by economic destination of the goods, based on NACE Rev. 1 (and its domestic version, CNAE-93).

These Regulations specify the activities, to three digits of CNAE, which comprise each of the industrial sectors by economic destination of the goods: consumer goods (durable and non-durable consumer goods), capital goods, intermediate goods and energy.

However, Regulation no. 586/2001, amended by Commission Regulation (EC) no. 656/2007, authorises Member States to calculate the domestic weights of each activity that comprise the sectors by economic destination, considering the complete divisions or part of them that is part of a same sector by economic destination. In the calculation of the Industrial Turnover or Industrial New Orders Received Indices, this definition is considered in order to obtain the activity groups that enable obtaining the basic aggregates on crossing them with the Autonomous Communities.

The following table presents the composition of each sector, by economic destination, according to the activity groups that enable obtaining the basic aggregates, on crossing them with the Autonomous Communities. Moreover, this includes (on an informative level) those activities to three digits of CNAE-2009 that comprise said activity groups.
## Classification of the industrial sectors by economic destination of the goods

### CONSUMER GOODS

#### Durable consumer goods

- **Manufacture of consumer electronics, optical instruments and photographic equipment**
  - 264 Manufacture of consumer electronics
  - 267 Manufacture of optical instruments and photographic equipment
- **Manufacture of household appliances**
  - 275 Manufacture of household appliances
- **Manufacture of motorcycles, bicycles, vehicles for the disabled and others**
  - 309 Manufacture of other transport equipment n.e.c.
- **Manufacture of furniture**
  - 310 Manufacture of furniture
- **Manufacture of jewellery, costume jewellery and musical instruments**
  - 321 Manufacture of jewellery, costume jewellery and the like
  - 322 Manufacture of musical instruments

#### Non-durable consumer goods

- **Food industries (except grain mill products and food for animals)**
  - 101 Processing and preserving of meat and production of meat products
  - 102 Processing and preserving of fish, crustaceans and molluscs
  - 103 Processing and preserving of fruit and vegetables
  - 104 Manufacture of vegetable and animal oils and fats
  - 105 Operation of dairies and cheese making
  - 107 Manufacture of bakery and farinaceous products
  - 108 Manufacture of other food products
- **Manufacture of beverages**
  - 110 Manufacture of beverages
- **Manufacture of tobacco**
  - 120 Manufacture of tobacco
- **Manufacture of knitted fabrics, rugs, ropes, non-woven fabrics, textile products for technical and industrial use and other textile products**
  - 139 Manufacture of other textile products
- **Manufacture of garments**
  - 141 Manufacture of garments, except fur apparel
  - 142 Manufacture of fur articles
  - 143 Manufacture of knitted and crocheted garments
- **Leather and footwear industry**
  - 151 Tanning and dressing of leather; leather goods, travel and saddlery; dressing and dyeing of fur
  - 152 Manufacture of footwear
- **Graphic arts and reproduction of recorded media**
  - 181 Graphic arts and related services
  - 182 Reproduction of recorded media
- **Manufacture of cleaning articles, perfumes and cosmetics**
  - 204 Manufacture of soap and detergents, and other cleaning and polishing articles
  - 205 Manufacture of perfumes and cosmetics
- **Manufacture of pharmaceutical products**
  - 211 Manufacture of basic pharmaceutical products
  - 212 Manufacture of pharmaceutical specialties
- **Manufacture of sporting goods; games and toys and other industries**
  - 323 Manufacture of sporting goods
  - 324 Manufacture of games and toys
  - 329 Manufacturing industries n.e.c.
### BI INTERMEDIATE GOODS

**Other mining and quarrying**
- 081 Extraction of stone, sand and clay
- 089 Mining and quarrying industries n.e.c.

**Manufacture of grain mill products, starches, and food for animals**
- 106 Manufacture of grain mill products, starches and starch products
- 109 Manufacture of prepared animal feeds

**Preparation and spinning of textile fibres. Manufacture of woven textiles. Textile finishings**
- 131 Preparation and spinning of textile fibres
- 132 Manufacture of woven textiles
- 133 Textile finishings

**Wood and cork industry**
- 161 Sawmilling and planing of wood
- 162 Manufacture of products of wood, cork, straw and plaiting materials

**Paper industry**
- 171 Manufacture of pulp, paper and cardboard
- 172 Manufacture of articles of paper and cardboard

**Chemical industry, except cleaning articles, perfumes and cosmetics**
- 201 Manufacture of basic chemical products, nitrogen compounds, fertilisers, plastics and synthetic rubber in primary forms
- 202 Manufacture of pesticides and other agro-chemical products
- 203 Manufacture of paints, varnishes and similar coatings; printing inks and mastics
- 205 Manufacture of other chemical products
- 206 Manufacture of man-made and synthetic fibres

**Rubber and plastic material transformation industry**
- 221 Manufacture of rubber products
- 222 Manufacture of plastic products

**Manufacture of other non-metallic ore products**
- 231 Manufacture of glass and glass products
- 232 Manufacture of refractory ceramic products
- 233 Manufacture of ceramic products for construction
- 234 Manufacture of other ceramic products
- 235 Manufacture of cement, lime and plaster
- 236 Manufacture of elements made of concrete, cement and plaster
- 237 Stone cutting, working and finishing
- 239 Manufacture of abrasive products and non-metallic mineral products n.e.c.

**Metallurgy; manufacture of iron, steel and ferro-alloy products**
- 241 Manufacture of basic products in iron, steel and ferro-alloys
- 242 Manufacture of steel tubes, pipes, hollow profiles and accessories
- 243 Manufacture of other products from the primary transformation of steel
- 244 Production of precious metals and other non-ferrous metals
- 245 Casting of metals

**Forging, stamping, embossing and rolling of metals. Manufacture of tools, hardware goods, packages and other metal products**
- 255 Forging, embossing and drawing of metals; powder metallurgy
- 256 Treatment and coating of metals; mechanical engineering by third parties
- 257 Manufacture of cutlery and silverware, tools and hardware
- 259 Manufacture of other metal products

**Manufacture of electronic components, assembled printed circuits, and magnetic and optical media**
- 261 Manufacture of electronic components and assembled printed circuits
- 268 Manufacture of magnetic and optical media

**Manufacture of electrical material and equipment, except household appliances**
- 271 Manufacture of engines, generators and electric transformers, and of distribution and electric control appliances
- 272 Manufacture of electric accumulators and batteries
- 273 Manufacture of cables and cable devices
- 274 Manufacture of lighting equipment and electric lamps
- 279 Manufacture of other electrical equipment and material
CAPITAL GOODS

- Manufacture of metal elements for construction, containers made of metal, steam generators, weapons and ammunition

  251 Manufacture of metal elements for construction
  252 Manufacture of tanks, reservoirs and containers of metal
  253 Manufacture of steam generators, except central heating boilers
  254 Manufacture of weapons and ammunition

Manufacture of computers, peripherals and telecommunications equipment; appliances for measuring and navigation; radiation and medical and therapeutic equipment

  262 Manufacture of computers and peripherals
  263 Manufacture of telecommunications equipment
  265 Manufacture of instruments and appliances for measuring, verification and navigation; manufacture
  266 Manufacture radiation, electro-medical and electro-therapeutic equipment

Manufacture of machinery and equipment n.e.c.

  281 Manufacture of machinery for general purposes
  282 Manufacture of other general purpose machinery n.e.c.
  283 Manufacture of agricultural and forestry machinery
  284 Manufacture of machines-tools for working metal and other machines-tools
  289 Manufacture of other specific purpose machinery

Manufacture of motor vehicles, trailers and semi-trailers

  291 Manufacture of motor vehicles
  292 Manufacture of bodywork for motor vehicles; manufacture of trailers and semi-trailers
  293 Manufacture of components, pieces and accessories for motor vehicles

Naval, railway, aircraft and spacecraft construction. Combat vehicles

  301 Naval construction
  302 Manufacture of railway and tramway locomotives and rolling stock
  303 Manufacture of aircraft and spacecraft and machinery thereof
  304 Manufacture of military combat vehicles

Manufacture of medical and dental instruments and supplies

  325 Manufacture of medical and dental instruments and supplies

Repair and installation of machinery and equipment

  331 Repair of metallic products, machinery and equipment
  332 Installation of industrial machines and equipment

ENERGY

Extraction of anthracite, coal and lignite

  051 Extraction of anthracite and coal
  052 Extraction of lignite

Extraction of crude petroleum and natural gas

  061 Extraction of crude petroleum
  062 Extraction of natural gas

Manufacture of coke and refined petroleum products

  191 Manufacture of coke oven products
  192 Petroleum refinement