

# Industry in Catalonia: status, challenges and opportunities

## Executive summary



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# **ACCES AND INCLUSION OF YOUNG PEOPLE IN THE LABOUR MARKET IN CATALUNYA**

## **REPORT**

approved by the Plenary of the Catalan Labour, Economic  
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## Executive Summary

### **Structural change. Industry versus services The tertiary process of Western economies**

These last decades there has been a progressive fall of the industry weight in Gross Value Added (GVA) for the vast majority of Western economies which could be considered to be more mature. In recent years, climate change has accelerated this process, and even in such economies as Germany, which had maintained a good standard in the industry, the sector weight has been falling with regard to the overall GVA.

However, although this process is generalized to more mature economies, in Catalonia the structural weight loss in industry has been more intense. In addition, this process has been accompanied, in the case of Catalonia, by a poor record in terms of productivity growth of the overall economy.

From a theoretical perspective, since the seventies of the last century, some explanations have been developed combining evidences from the forces of endogenous growth. According to these theories, the increased weight of the services and the decline of the industry are the basis for the lack of growth of economic productivity. This sequence then leads to patterns of growth becoming less dynamic and productivity evolution less intense. This situation, shown by Baumol, explains from the structural change the less intense productivity growth in developed countries.

However, in recent years, new information technologies and communication technologies (ICT), together with profound changes in the global economy, have led to develop some important service sectors where growth in both GVA terms and in terms of productivity are also very noticeable.

### **The new segmentation strategies on the value chain in a global context**

At the beginning of the century, we find some branches of industry which still maintain high levels of productivity, but also some services that have been able to add value and have increased markedly their apparent labour productivity.

The incorporation of ICT has launched a progressive lowering of transaction costs that have led to increasingly promote trade and production specialization in a global context. This new situation is increasingly globalized, and has led companies, many of them belonging to the industry sector, to undertake outsourcing strategies or searching for added value. These new strategies have blurred a little more the boundaries between industrial and service sectors, increasingly interconnected and dependent on each other.

### **The interrelationships of the Catalan industry with the rest of the economy between 1987 and 2005**

If we analyze the implications that this process has had in Catalonia in the structural relationships that the industry has kept these past twenty-five years, we see that domestic intermediate consumption per unit produced has been declining since 1987 to 2001. From 2001 to 2005, this declining process has slowed down and even the weight

of domestic intermediate consumption on the value of the final product has recovered slightly. This change in the indoors intermediate requirements has also reduced the industrial sector drags on the economy, which, although they are still quite high, have decreased from 1987 to 2001.

This weight loss process in domestic consumption has been accompanied, during the 1987–2001 period, by an increase of intermediate consumption from the rest of Spain and especially abroad. From 2001 onwards, although the weight loss of the domestic intermediate consumption stops, there is a drop on the rest of Spain, and an increase of the foreign one. Total intermediate consumption in the industrial sector has increased steadily from 1987 to 2005.

If we analyze the same process discounting the effects of variation in relative prices, we notice that between 1987 and 2001 the decrease in domestic consumption is maintained and even accentuated, while foreign consumption continues to rise strongly by unit produced. Between the 2001 to 2005 period, the reduction of consumption in the rest of Spain and its rising overseas is also verified.

Thus, from the observed data, it might be true that the combined effect of offshoring and outsourcing has led us towards a fall in the internal intermediate consumption and to an increase of foreign intermediate consumption on the industrial sector, which does not stop, although it slows down from 2001. The weight of consumption from the rest of Spain changes little throughout the period. However the total result shows a clear increase in dependence on imported intermediate consumption. This may have been the result of outsourcing and offshoring processes derived from the new global situation, especially where progression of the latter, together with the relocation of intermediate activities, has caused the current situation.

In this regard, although the figures do not deny the evidence of an intense outsourcing process and the fact that some of these new activities have resulted in an increase of the intermediate consumption that the industrial sector makes in other sectors of the Catalan economy (such as services), the matter is that the relocation of activities abroad, and the outsourcing of parts of the production processes outside Catalonia has been greatly intensified and has more than offset the initial effect to which we referred.

Actually, if we analyze the evolution of intermediate consumption from the domestic tertiary activities between 1987 and 2005, we can observe, first, an increase above the intermediate consumption per unit produced from sectors as Business Services and Transport and Communications. Furthermore, this increase in intermediate consumption, especially in the case of business services, appears in all activities, not just in the industry, where there is also an increase. However, the variation in consumption of business services that the industry does is more than 20% of the total increase in intermediate consumption of business services in the overall economy.

In the 2001-2005 period, the consumption of business services produced per unit has increased in many activities, but it is not the case of Transport and Communications, which descend in various fields and especially in the same sector. However, if we discount the price effect in this period, we observe that the increase in intermediate consumption of business services has an important nominal component rated in many of these cases. Therefore, although we can say that the data are consistent with a growing outsourcing towards these sectors by the majority of activities in the 1987-2001 period (also in the industry), this process is reversed between 2001 and 2005 in the case of Transport and communications, as intermediate consumption is falling in

many sectors (not the industry), and in the case of business services, although this process does not revert so widely, it seems however to be slowing.

When we analyze the intermediate consumption per unit of product by branches of activity, the major changes are these:

1. We observe widespread increases of intermediate products consumption on its own sector in the 1987-2005 period (Energy and oil refining, Food, Wood and cork, Rubber and plastic, Non-metallic minerals, Machinery and mechanical equipment, Electrical and electronic equipment, Construction, Transport and telecommunications, Financial intermediation and Business services). In industry these increases are led by foreign production (Energy, Metallurgy, Textiles, Wood and cork, Paper and paperboard, Machinery and mechanical equipment, Electrical and electronic equipment and Transport equipment) while in service, they are led by domestic production (transport and telecommunications, financial intermediation and business services). It would seem that both, offshoring and outsourcing, affect the industry, while outsourcing affects more services.

In the 2001-2005 period we observe many sectors, mainly industrial ones, where this trend towards the increase of the own sector's consumption changes (Energy and oil refining, Paper and cardboard, Chemicals and Electrical and electronic equipment). The domestic production destined to the own sector continues to decline not so widely as it does for the whole period, but now it affects some services (Paper and cardboard, and Transport and telecommunications); reductions in intrasectorial intermediate consumption from the rest of Spain should be added, mainly affecting the industry (Metallurgy and Wood and cork) and some production abroad (Energy and oil refining, Paper and cardboard and Electrical and electronic equipment).

In the period 1987-2005 we can observe the widespread increase (except in construction) in purchase of services to enterprises on the production of each sector (Food, Paper and paperboard, Chemicals, Commerce, Hotel trade, Financial intermediation, Business Services and R&D and education). This increase in intermediate consumption is dominated by domestic production (Commerce and Business Services) and to a lesser extent, by the production of the rest of Spain and abroad.

In the 2001-2005 period the intermediate services consumption to companies continue to increase in almost all sectors, especially Trade (and Energy and oil refining in the previous exception of Construction). The prominence in this period falls almost exclusively on domestic production (Chemicals). However, they do not manifest as clearly a positive contribution at constant prices. Even negative contributions in intermediate consumption of services are remarkable in companies belonging to financial intermediation sector once variables are deflected.

We must also highlight the following changes by its high intensity:

- a. Increase in energy consumption and intermediate products of oil refining in Electricity sector, gas and water, which are essentially foreign, between 1987 and 2005. Between 2001 and 2005 this consumption goes back.
- b. Consumption decrease of intermediate food products in hotel trade, which proceed basically from an internal source, between 1987 and 2005. This may have occurred largely by the evolution of relative prices.

- c. Consumption decrease of intermediate agricultural food products, which proceed basically from an internal source, between 1987 and 2005. This may have also occurred largely through the evolution of relative prices.
- d. Trade reduces its presence in intermediate consumption per unit of product in sectors, especially in the case of Agriculture, Metallurgy, Food and Transport material, which is remarkable if prices are deflated.
- e. Between 2001 and 2005 the intermediate consumption of food products in agriculture increases.
- f. Between 2001 and 2005 the intermediate consumption of Chemicals, Rubber and plastics sector increases, which proceed basically from an internal source.
- g. Between 2001 and 2005 the consumption of Metallurgy intermediate products in the sector of transport equipment is reduced.

### **The role of industry in the Catalan economy**

#### **The weight of industry in Catalonia. An analysis according to the TIOC**

All these changes have had an impact on the Catalan economic structure. Industry evolved from generating the 43.1% of GVA in 1987 to 22.8% in 2005. In the same period it evolved from 33.5% occupied working people to 22.2%. As it can be observed, industry has adjusted its structural weight in terms of GVA rather than of employment. This means that although all four sectors have increased their productivity, the progress of industry has been more moderate. However, in 2005 industry was not much far ahead of the service sector in terms of apparent productivity, and it had only been surpassed by the construction, a sector heavily influenced by the rise of uncontrolled prices during the latter period, a rise that is still in correction process.

Nonetheless, this loss of advantage on the industry in terms of apparent labour productivity is also largely a result of the differential pricing behaviour on either sector, since in real terms the apparent productivity growth would have been less damaging in relation to industry.

However, although industry has lost direct presence in Catalonia during this period, this loss, even its reproduction in terms of ability to pull the economy demand sector as a whole, not seems to have been so intense. Moreover, if one considers only foreign demand, it is observed that the ability to drag the exports sector abroad is even higher in 2005 than in any other industry sector, despite the strong pull capacity exerted currently by some export services.

In this regard, although the ability to drag on the apparent productivity of the economy that has an increase in industrial exports has decreased since 1987 (which induced an increase of 0.11% by a 10% increase in industrial exports), up to 2005 (0.02%), industrial exports have shown a positive impact on average productivity.

However, it is an undeniable fact that the external balance of the Catalan economy has worsened since 2001 to 2005, either with the rest of Spain or abroad. However, this fact is combined with an improved market share of Catalan production in the domestic market. These results suggest that the improvement of productivity in terms of export production reflected in the analysis of impacts is not enough to improve the foreign trade performance of the Catalan economy in the 2001-2005 period. This idea is reinforced by the fact that the pace of export growth in the rest of Spain and abroad is lower than the growth of global trade during this period.

#### **Analysis of production, added value, occupation and productivity by sector**

## Production

Looking at the weight of each sector in total output and drags backward and forward in every sector in terms of production, we observe the leading role of the tertiary sectors in the analyzed variables. In particular, sectors as Hotel trade, Financial intermediation and Business services stand out because they have achieved results above the average for all three indicators analyzed in 2005. The research, development and education sector also stands out by having results above the average in the evolution of the three variables analyzed between 1987 and 2005.

Industrial sectors only highlight in 2005 by its value on dragging back production (Energy and oil refining, Rubber and plastics, Non-metallic minerals, Machinery and mechanical equipment, Electrical and electronic equipment and Electricity, gas and water) and in the variation improvement between 1987 and 2005 on dragging forward each sector on the total production (Food, Textile, Chemical, Rubber and plastics, and Other manufacturing Electricity, gas and water).

### The added value

Looking at the unit value and at the drags back and forth to each sector in terms of value, the tertiary sector was again the leading protagonist in all the variables analyzed. In particular, there are four sectors that have scores above the average in all the variables analyzed: Hotel trade, Business Services, R&D and education and Public administrations and other social and personal services.

The role of industrial sectors is low in terms of added value. The highest number of industrial sectors with scores above the median on any of the variables analyzed is four and it is given in the 1987-2005 variation on the AV per unit: Energy and oil refining, Food, Paper and cardboard and Machinery and mechanical equipment.

## Employment

Looking at the employment unit and at the drags back and forth to each sector in terms of employment, industry now takes a more prominent role, especially in the results for the 1987-2005 variation of the variables analyzed. The most striking one is the Machinery and mechanical equipment sector, which shows results above the average for all variables analyzed.

Specifically, results are to be above the average in the three variables analyzed in 2005 for the following sectors: Agriculture, Metallurgy, Textiles, Wood and cork, Machinery, Other manufacturing, Construction, Commerce, Hotel trade, R&D, Public administrations and Education and other social services. Sectors that have scores above the average in the three variables analyzed due to variation in 1987-2005 are: Energy and oil refining, Food, Paper and cardboard, Chemical, Rubber and plastic, Non-metallic Minerals, Machinery, Electricity, water and gas, Financial intermediation and Business services.

### The apparent productivity of labour

Looking at the absolute value of productivity, and at the drags back of each sector in terms of productivity and the impact on productivity of changes in final demand and exports to the rest of Spain and abroad for each sector, the industrial sectors are involved in all variables analyzed, except for the 1987-2005 variation of the impact on productivity when the final demand of each sector increases. It should be noted that the

largest number of industrial sectors with scores above the average occurs in impact variables on productivity when exports increase.

The outstanding sectors include mainly industrial sectors of Material transport, Electricity, water and gas, Non-metallic Minerals, Electrical and electronic equipment, Energy and the oil refining and Chemicals. However, we should make a special mention to the Transport sector, as it has good results in all variables analyzed. Moreover, we find two service sectors that have this feature (Transport and Telecommunications and Business services).

### **Exports and imports by branch of activity**

Due to the construction of the input output tables, exports and imports by branch of activity do not include the tourism activities that are considered consumer transactions. In net terms, the tourism balance goes to 3.1% of GDP in 2001 to 3.0% in 2005.

The analysis of the exports value distribution to the rest of Spain and abroad and to the propensity to export assigns a key role to industrial sectors, especially in the propensity variable. Service sectors are a majority compared to the industrial sectors only in the 1987-2005 evolution of the distribution of the abroad exports value, which includes Business Services, Transportation and telecommunications and Commerce, with increasing international presence.

The impact analysis on the trade balance due to an increase in exports to the rest of Spain and abroad gives better results in the industrial sectors. In both cases, industry leaders are Metallurgy, Food, Textiles, Chemicals, Electrical and electronic equipment, and Material transport. In the case of an export increase to the rest of Spain, the sector of Paper and cardboard also stands out and in the case of an increase in exports abroad, the Machinery and mechanical equipment sector is standing out. It should also be said that the Business Services sector shows results above the average for all the impact variables analyzed on trade balance when exports to the rest of Spain and abroad increase.

### **The industrial sector and the occupation in Catalonia**

As mentioned previously, the whole industry does not stand out for its ability to pull in terms of employment. In addition, from 1987 to 2005 the industrial employment weight structure has decreased.

This structural weight loss in industry has been a combination of structural changes in demand and in the interrelationships between sectors, linked to changes in the intensity of labour use. However, there are some areas where performance has not been as negative:

1. Sectors with a lesser decrease in their intensity of work use have been Food, Paper and paperboard, Machinery and mechanical equipment, Textiles and leather shoes, and Chemical.
2. Among the sectors less affected by changes in demand there are the Transport material, Non-metallic minerals, Other manufactures, and Machinery and mechanical equipment.
3. Regarding changes in crossed relationships we should highlight Rubber Materials, Transport and Other manufactures, which have seen how these changes enable them to increase their structural weight.

However, despite the decline in terms of ability to pull of jobs in the industry as a whole, it is true that industrial activities are those that fit in terms of employment when the demand comes from exports.

The ability to drag the industry concentrates mainly in the skilled manual category. However, the uptake increases in exports in terms of employment arising from industrial activity are much higher than other major sectors in all rating work categories, except for non-manual skilled workers. This ability to drag industrial exports is particularly high in manual skilled ones. This last feature is especially relevant to the industry for two questions: first, because it is capable of dragging demand more on those categories that have been affected by the decline in construction, and, secondly, because it relates primarily to foreign demand, which currently has shown a recovery, by now, more dynamic than the domestic one.

### **The industrial sector and the R&D in Catalonia**

Spending on research and development (R&D) is a key factor to business competitiveness in the medium and the long term. Of all the major sectors of the economy, the industry is the one that generates more expenditure on R&D (67.4% of the total in 2005). In addition, industrial activity is also the one which makes the highest effort in R&D expenditure per unit produced.

This strong link with the industrial R&D results in the fact that the industrial sector became the most capable one in terms of dragging the R&D expenditure in the economy. In addition, from 2001 to 2005, the industry has improved both its ability to drag as the intensity of R&D per unit produced. This improvement has happened in all industrial sectors except the Transportation of materials, Electricity, water and and gas.

If we analyze the nature of these structural changes, we see that, in the whole economy, structural changes in demand have increased R&D; changes in the spending intensity on R&D have also increased, whereas a change in the evolution of intersectoral relationships virtually has no impact on R&D, although the total effect of these changes could have close relationships with the evolution on R&D intensity.

In 2005, industrial activities with a higher incidence in terms of expenditure on R&D, expense intensity on R&D and drag capabilities were the Electrical equipment and electronics, Food, Textiles, Chemicals, Machinery and mechanical equipment, and Transport material. From 2001 to 2005, sectors that have maintained the best performances were Textile, Chemical, Metallurgy and Other manufactures. The tertiary sector called Other services, which includes business services, financial ones, R&D, education, PPAA and other social services also showed a favorable evolution.

If we analyze the factors that have influenced on this growth of R&D we see that:

1. It is more benefited by the demand evolution: the R&D generated by the sectors Energy, Metals, Food, Rubber and Non-metallic minerals, as well as Construction and all services.
2. It is also benefited by their own efforts in R&D unit produced by the sector: the R&D generated by the Metallurgical activities, Electrical and Electronic Equipment, Textile, Chemical, Other manufacturing, as well as Agriculture, Construction, trade and other services.

3. Intersectorial relationships evolution has a more positive effect on R&D generated by the following sectors: Metallurgy, Food, Rubber, and Other manufactures, Electricity, as well as Construction and all services.

Trade, Other services and Metallurgy are activities that have improved mostly between 2001 and 2005 spending on R&D, in addition to being above the average R&D expenditures in 2005.

Finally, if we consider the ability to drag the R&D of each activity, we observe that the expenditure increase in R&D that generates a 10% increase in demand in every sector stands out as the highest on the sectors: Metallurgy, Electrical and electronic equipment, Food, Textiles, Chemicals, Machinery and equipment, and Material transport, all industrial ones, as well as Trade and Other services, which have risen strongly in recent years.

### **Situation: the crisis impact**

Since 2005 until 2008, the GVA falls on most industrial activities in real terms and, even in some of them, in nominal terms. The strong slowdown derived from the last year of crisis drags the whole period of evolution. This behaviour is not repeated in the rest of the service sector or in agriculture or construction. The industry, therefore, loses weight in the structural configuration of the GVA on the Catalan economy during the latter period.

Sectorially, one of the sectors where the GVA is falling more is in Textiles, where the withdrawal of GVA occurs both in nominal and real terms.

This fall in the structural weight of all the industrial activities is also reproduced in the years 2008-2010. The effects of this crisis have intensified structural weight loss in industry, as services, driven mainly by non-market services, have maintained a positive performance in nominal terms. From 2007 building begins also to lose structural weight in Catalan GVA.

Looking at the 2005-2008 period, we see how different factors are involved in the structural change that we have observed:

1. Changes in relationships and in the sectorial structure of demand have been particularly negative for the industry, because:
  - a. They have been negative for these sectors: Other manufactures, Electrical and electronic equipment, Electricity, water and gas, Machinery and mechanical equipment, Textile, leather and footwear, Wood and cork or Pulp and paper, paperboard and related articles (besides Trade and business services).
  - b. They have been positive for these sectors: Transport material, Metallurgy and metal products, Energy and oil refining, Chemical industry (and other non-industrial activities except Trade and business services).
2. Changes in GVA per unit produced:
  - a. They have been negative as for the structural weight in terms of GVA for these sectors: Energy and oil refining, Electricity, water and gas, Chemicals, Plastics and rubber, Non-metallic minerals and derivatives, Electrical and Electronic

- Equipment, Food and Metallurgy (and all other non-industrial activities except financial intermediation).
- b. They have been positive as for the structural weight in terms of GVA for these sectors: Textile, leather and footwear, or Wood, cork and derivatives, and, to a lesser extent, Other manufactures, Transport equipment and Brokerage.

Moreover, from 2005 to 2008, changes in the number of jobs per unit produced have played against the capacity to generate employment in all economic activities. Among the industrial activities, Transport material is the one which has diminished less this relationship.

Regarding the propensity to export, in this same period, we observe that almost all industries have increased their propensity to export (exports per unit produced). The only ones who have not are the Manufacturing sectors of electrical and electronic equipment and Chemicals. The extroversion of the textile sector has increased, behind energy products, extractive and petroleum refining.

During these past years of crisis (2008-2010) exports of industrial products have fallen in the first year and partially recovered in the second one. Sectors that have shown the greater ease of recovery have been Chemicals, Textile, and Food.

If we analyze, all together, which has been the evolution of intermediate consumption per unit produced for the whole period analyzed, we observe, as mentioned earlier, that it has increased greatly during the 1987-2001 period, whereas this increase was slow in the period 2001-2005. From 2005 to 2008 it is observed, however, that this process has been reassumed, and in the case of industry, this increase comes mainly from the increase of imported intermediate consumption, what could be the result of a high incidence of the offshoring phenomenon or simply of relocating overseas purchases.

### **The industry at present. Some final considerations**

With the aim to identify and classify the main sectors of the Catalan economy, we have made a selection of the most important indicators that we have used in this report and we have observed which were the results of these indicators in each sector. The indicators belong to the variables of productivity, exports, employment and R&D.

Sectors that are in the first five positions of the classification, ie, sectors that have more results above the average value in each of the indicators chosen are Chemicals, Transport equipment, Business Services, Electrical and electronic equipment, Transport and telecommunications. Its good results concentrate on the indicators of the productivity chapter and also on impacts on the trade balance and on employment when total exports to the rest of Spain and abroad increase. The first four sections on the classification also presented good results in the indicators corresponding to the R&D chapter. It is confirmed that these sectors are high-tech or medium high-tech.

The following four sectors of the classification are Food, Textiles, Leather and Footwear, Metallurgy and its derivatives, and Commerce. This group is characterized by sectors that are important in terms of employment and by its high impact on the trade balance, on employment when exports to the rest of Spain and abroad increase. With the exception of trade, these sectors have high propensities to export.

The following one is Pulp, paper and cardboard sector, which has similar characteristics to the previous group, except for the impact on the trade balance and

employment when total exports abroad increase. However, it is notable for its good results in terms of impact on productivity when total exports to the rest of Spain and abroad increase.

The following sectors in the classification are Financial intermediation, Energy and oil refining and Non-metallic minerals and their derivatives. All of them stand out in connection with the productivity indicators of the chapter. The Financial intermediation has also good results in R&D indicators and the other two have, in addition, high propensity to export to the rest of Spain.

Then we find the Machinery and mechanical equipment sector, which stands out in the propensity indicators to export and in the total trade balance impact, both linked to exports abroad. It also stands out in the R&D indicators and in the impact on total employment when exports increase.

As the following ones in the classification we find the Hotel trade sector, the PPAA and other social and personal services, Electricity, water and gas, Construction, and R&D and education. Except for Electricity, sectors in this group are characterized by high employment and a high impact on total employment when the final demand increases. Electricity, however, stands out for having good results in all indicators on the productivity variable, some of which (its absolute value and the impact on productivity, when the total final demand increase) are shared with the Hotel and Construction. Logically, we also highlight the good results in R&D of the research, development and education sector.

The last four positions are occupied by Other manufactures, Wood, cork and wood products and cork, Agriculture, Livestock and Products, Rubber and Plastics. With the exception of Agriculture, this group of sectors has a high propensity to export abroad. Other manufactures and Wood and cork have also a high propensity to export to the rest of Spain. Other manufactures also include the indicator of intensity in R&D. Agriculture has only one result above the average value on the indicator of employment absolute value.

A second test that we have performed consists of measuring the decline of industry in terms of production, employment and added value as a percentage of the economy and if this decline has been offset by growth in services that are directly or indirectly linked. The concept of "new industry" as defined by Professor Baron Ezekiel, aims to reflect this phenomenon and this measure shows that the increase in services devoted to production (business services, trade, transport and telecommunications, finance and energy) could not compensate the weight loss experienced on manufacturing in recent years. For example, in value-added terms, manufacturing has passed from representing 38.8% of the Catalan economy in 1987 to 21.2% in 2005, but the new industry has also decreased its stake from 76, 7% to 70.7%. However, the participation of new industry in the total added value on the economy has grown between 2001 and 2005 because it stood at 68.1% in 2001. The problem is that this measure overestimates the services connected with the industry so that they join service activities aimed at people or at the tertiary sector.

This report presents a different approach to measure the perimeter of industrial activity with the aim to identify economic activity that is closely linked or dependent. The new perimeter of the industry is made up by industrial activity, plus the services purchased by the industry, which are used as intermediate consumption, plus the value of trade and transport activities to final destination necessary for industrial products to reach

their consumers. In this approach there is an overestimation of the trade activities and transport, but in this case it does not affect so many areas as it happened with the concept of "new industry". Results show that the industry loss weight in the main variables of the economy is not compensated by the activity of industrial services for intermediate consumption, neither by increasing the activity of trade and transport with final destination, the relative importance of which is more or less constant over the period analyzed. For example, in terms of added value, industry reduces its weight in the whole of the Catalan economy from 43.1% to 22.8% between 1987 and 2005, whereas the new scope of industry, expanded according to this different approach, goes from 62.7% to 44.4% in those same years.

Therefore, 44.4% of GVA generated by the Catalan economy is directly or indirectly based on the industrial activity. This means that 4.4 of every 10 € generated by Catalan economy is based on industrial activity. If we repeat the same exercise in the case of employment, we see that industrial activity, directly or indirectly, holds 47.5% of employed people in Catalonia, a figure which places us in a ratio of almost one every two persons employed. With these figures in hand, the strategic importance of the industrial sector is undoubted.