

# **The Influence of Demand on the EU's and Romania's Industrial Competitiveness**

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## **Abstract**

*This paper deals with the influence exerted by the market demand of products and services and investment demand on the manufacturing industry and its component sectors' competitiveness. From the analysis carried out in this sense some relevant conclusions were drawn, especially regarding the prospects of the demand and the possibilities to turn them profitable.*

**Key words:** *demand, demand of goods and services, investment demand, competitiveness*

**JEL Classification:** *L60*

## **Introduction**

A factor with determinant influence on industrial competitiveness, which joins those tackled in two previous articles published in this journal, is the market demand, whose fluctuations reflected by those of private and collective goods and services consumption and investment capital consumption can affect the evolution of industrial sectors.

## **Market Demand of Products and Services**

Consumer spending varies in time, sometimes widely, under the impact of various influences - changes in preferences, evolution of the economy leading to increased or decreased income, the sensitivity to prices changes, fashion trends. Sensitivity to price changes also varies significantly from some products/services to others, leading, for the basic necessities, to low elasticity of their demand.

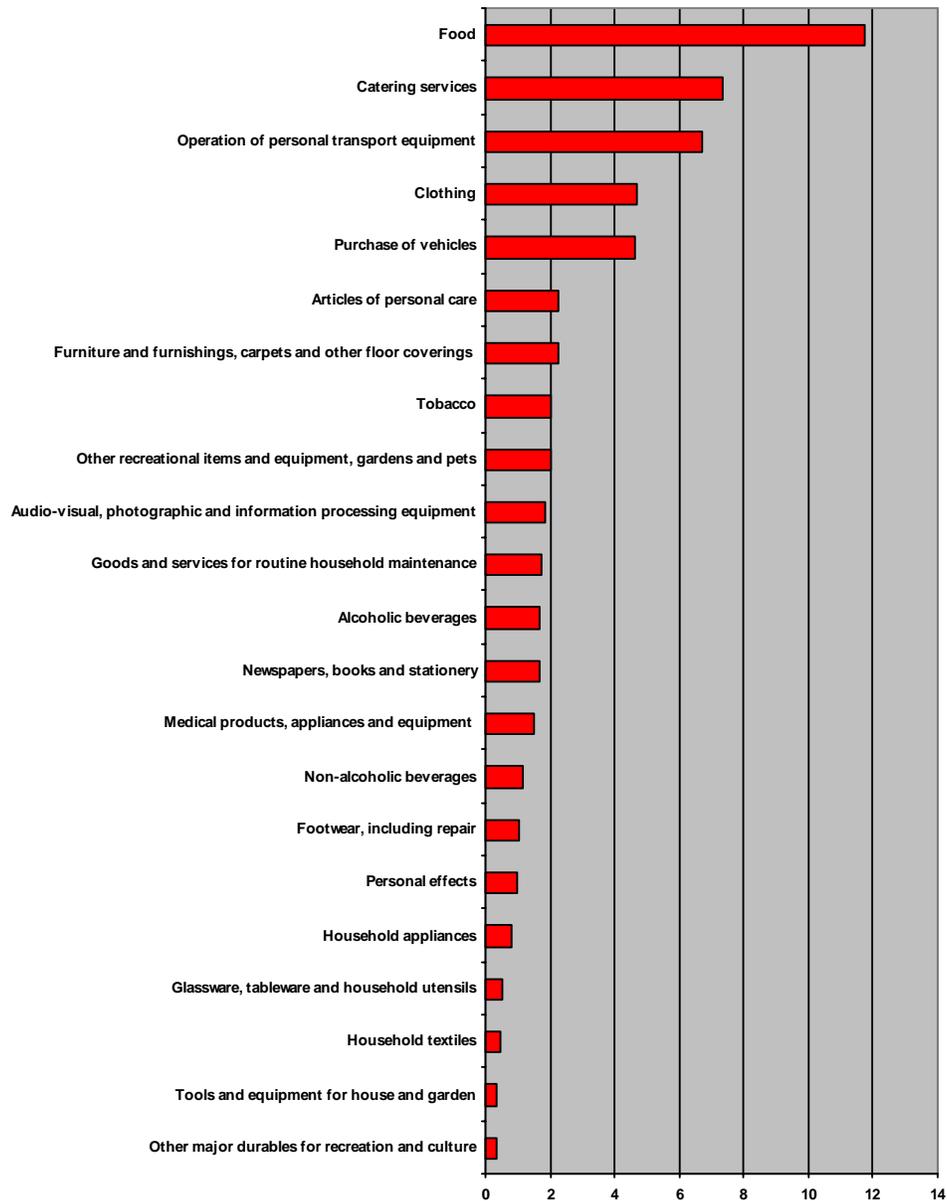
A marked tendency produced in recent decades in private consumption is the constant increasing demand for services, which has come to exceed the demand for products in many countries.

Private and collective consumption of goods and services is essential for the size of demand, as it stands for 57.4% of the EU GDP in 2007 and 81.8% of that of Romania in 2008 (out of the actual individual consumption of households - 74.0%, and the actual consumption of the public administrations - 7.8%).

In the EU27, whose standard of living has improved continuously, detailed analysis of private goods and services consumption in 2006, disaggregated by sector and expressed as a percentage

of total consumption, led to the results shown in Figure 1 (related positions to manufacturing industry were selected).

The figure shows the prevailing shares of basic products / services consumption, essential for life, such as food, clothing, transport services, arranging houses. At the same time, dynamic analysis of private consumption reveals its sustained growth in the areas of products / services such as audio-visual, photographic and information equipment, other durables for recreation and culture, articles and equipment for house and garden, household appliances etc.



**Fig. 1.** Weight of products/services specific to the manufacturing industry sectors in private consumption of the EU27, by 2006 (% out of total consumption)

Source: EU industrial structure 2009. Performance and competitiveness. European Commission, Enterprise and Industry, Publications Office of the European Union, Luxembourg, 2009, p. 117. Processed information using EUROSTAT data.

In Romania, the demand for industrial products /services is considerable, but drastically amended by the total household income. In 2008, the total consumption expenditure structure was as follows: food expenditures - 44.3%, expenditures for non-food goods - 31.5%; expenditures for services charges - 24.2% <sup>1</sup>. Improving the economic situation of the country after 2000, when a period of continuous economic growth began, brought about some small amplitude changes in the structure of total household expenditures, as shown in the table below.

**Table 1.** Structure of total household expenditures in Romania, in 2003 and 2008

	2003	2008
Consumption expenditures	72.5	71.3
Investment expenditures	1.6	2.1
Production expenditures	10.6	7.4
Taxes, contributions, dues	11.9	15.8
Other expenditures	3.4	3.4

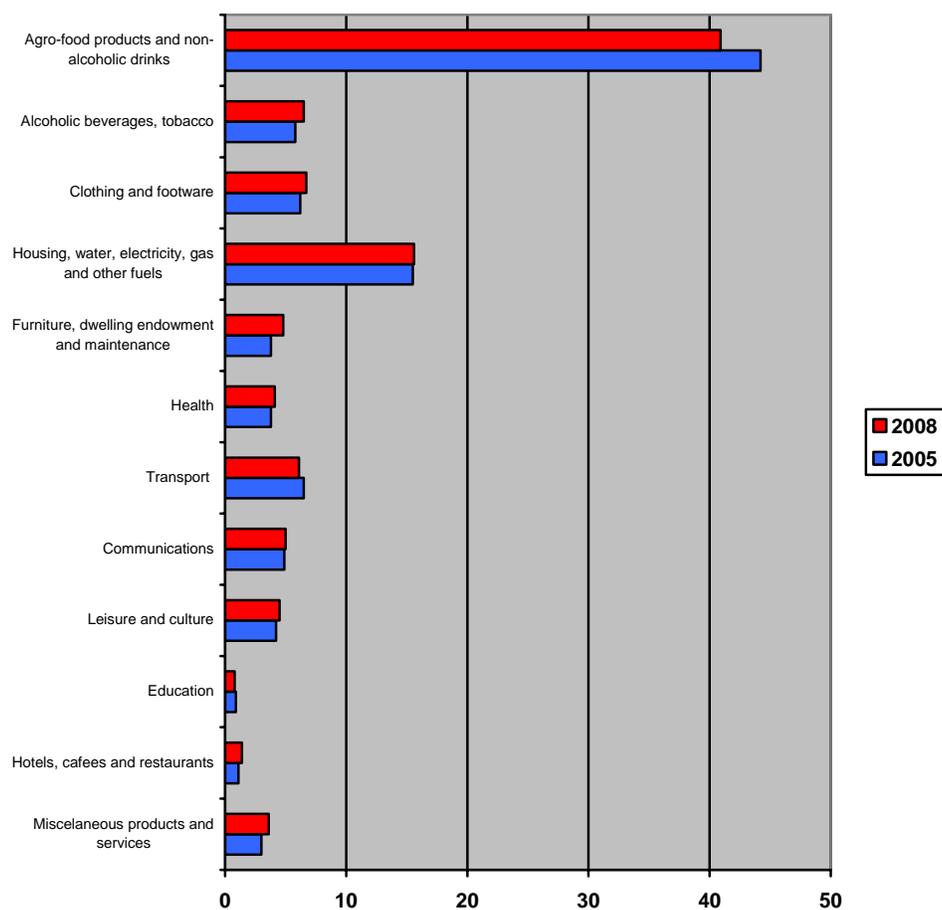
Source: Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 287

Radical increase of the population living standards during 2003-2008 resulted in reduction by 1.2 percentage points of consumption expenditures weight and increase by 0.5 p.p. of investment weight, the latter level showing weak inclination of population to save, even under conditions of increased income and improved living standard. It is worth noting the increase by 3.9 p.p. of weight of various forms of debt to financial and local administration and other beneficiaries.

In the analyzed 2003-2008 period, average real earnings index was 184.1 (2003 = 100), indicating a substantial increase in real terms which makes up the basis of significant demand increase.

Changes which took place in the structure of households total consumption expenses between 2003 and 2008 are shown in the figure below.

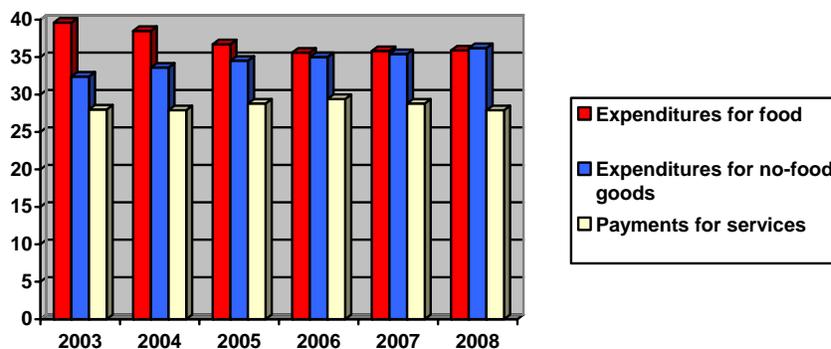
<sup>1</sup> Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 286



**Fig. 2.** Structure of households total consumption expenditures, by 2005 and 2008

Source: Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 328

Changes in household consumption expenditure structure produced as a result of improving the overall standard of living are more obvious if the expenses are grouped by the three above-mentioned destinations – for food, for non-food goods, and payments for services –, provided in the following figure.



**Fig. 3.** The structure of household monetary consumption expenditures in the years 2003-2008

Source: Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 330

The trends highlighted by the figures in the table relating to the period under review are the reduction of expenses for food weight and increase of those for non-food products, both converging with the trends at the EU level, and relatively steady maintaining in household consumption expenses of those for payments of services, evolution contrary to that dominant at the worldwide level and registered in the EU.

Analysis of physical consumption figures concerning the average physical consumption of food and drink, and the endowment of households with durable goods, shows their constant growth in recent years.

For example, during 2003-2008 period, the average annual consumption of milk and milk products increased by 13.2%, that of eggs by 11.7%, of meat and organ by 10.4%, of non-alcoholic drinks with 40.2%, of beer by 52.6%, of wine and wine products by 6.5%<sup>2</sup>. In terms of equipping households with durable goods, expressed in average number of articles / 100 households, it was, in 2008, 86.1 with radios, 132.0 with TV set, 83.1 with refrigerators and freezers, 36.8 with refrigerating combines, 94.1 with gas cookers, 70.8 with electrical washing machines, 58.7 with vacuum cleaners, and 27.1 with motor vehicles; for some of these items, the degree of endowment is approaching domestic demand saturation limit, which means that future demand for them will not be for procurement and replacement of the old, but will predominantly limit itself for replacement.

In addition to these aspects that highlight the significant increase of final private goods and services consumption, it must be taken into account the final collective consumption growth, which also means the increasing demand for manufactured goods and services.

For example, the number of completed dwellings increased from 29,100 in 2003 to 67,300 in 2008, so 2.31 times, this meaning a considerably increased demand for steel concrete, building materials, timber, construction machinery etc. Over the same period, the length of urban roads increased by 12.2%, of simple tram lines decreased by 7.0% and of trolley by 34.4%, the length of simple metro lines grew by 5.7%, the total length of sewer simple pipes increased by 18.5%, the number of localities in which is distributed natural gas increased by 30.4%, of those with drinking water facilities increased by 20.9%, the total simple length of water distribution network increased by 34.4% etc.

All increases mentioned above, some of them considerable, has meant increasing demand for goods and services provided by the manufacturing industry.

The conclusion is that, in terms of domestic demand, the Romanian manufacturing industry has a wide field to satisfy with its products and services, this requirement virtually aiming at all its component sectors; this means, again, increasing its products' and services' competitiveness, indispensable for successfully facing foreign companies' competition, which are very active on the domestic market.

In terms of demand on foreign markets, the increases recorded in the 2003-2008 period of the Romanian industrial products export confirm appreciable absorption capacity of these markets (calculations using the value of exports in Euros): chemicals – by 2.46 times; plastics, rubber and articles thereof - by 2.34%; wood products, except furniture - by 33.9%; basic metals and articles thereof - by 2.45 times; machinery, electrical equipment, sound recorders and sound and images reproducers - by 3.22 times; means and transport equipment – by 4.63 times; optical, photographic, cinematographic, medical and surgical and similar, watches, musical instruments, parts and accessories thereof - by 4.30 times; diverse goods and products - by 58.6%.

The increases are, in the case of some product groups, appreciable, proving that for the Romanian manufacturing industry the domestic and external demand for specific products and

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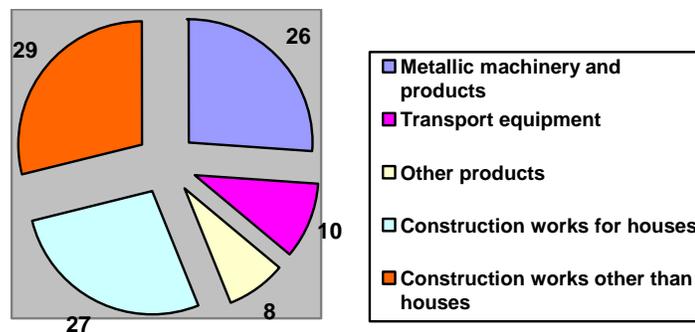
<sup>2</sup> Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 331

services is a powerful stimulant factor, which can be beneficially exploited only by continuous and substantial offer improvement, quantitative and as price.

## Investment Demand

Investment is the main spring of economic growth when it is directed towards the creation of new production capacity and the expanding and upgrading of existing ones. The measure of the new net investment made by companies, public authorities and households in fixed capital assets during a certain period, is given by the indicator gross fixed capital formation (GFCF). According to the Romanian Statistical Yearbook, "FCBF is the value of durable goods (tangible and intangible) for purposes other than the military, purchased by resident producing units in order to be used for at least one year in production, as well as the value of services embodied in fixed capital goods" (2010 edition, p. 538).

In the EU, in 2007, the structure of investment by group of sectors is shown in the figure below.

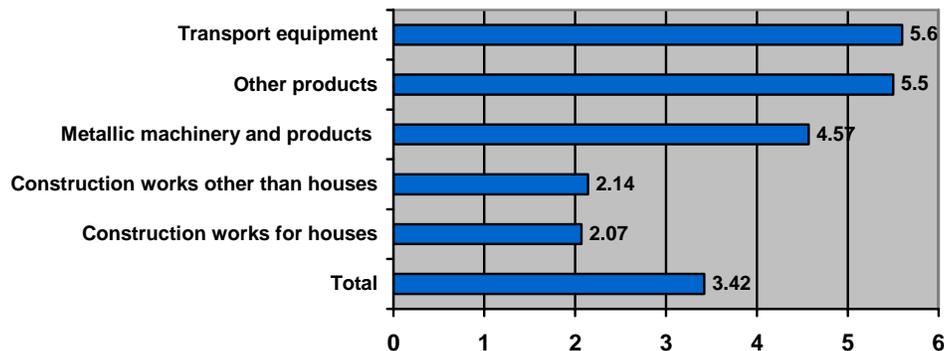


**Fig. 4.** Structure of investment made by the EU in 2007, by sector groups (%)

Source: EU industrial structure 2009, p. 120

According to the figure, the manufacturing industrial sectors amounted in that year to 44% of the total investments made in the Community.

Analysis regarding the average annual growth rate of investments in the EU27 between 1995 and 2007, on the same sector groups, points out the situation presented in the following figure.



**Fig. 5.** Average annual growth rates of investment in EU27, in 1995-2007 period, by sector groups (%)

Source: EU industrial structure 2009, p. 121

Joint analysis of the two figures leads to the conclusion that the large share of investment in construction has been reached, especially, in recent years of the period, during the period analyzed groups belonging to the manufacturing industry concentrating most investments.

The large share of the EU investments in the construction sector in 2007, as in previous years, was due to extensive construction works carried out in Greece, France and the United Kingdom, representing, during the period 1995-2006, 92% of building value recorded in the Community.

The average annual growth rate of investment in the period 1995-2007, expressed in constant terms by reference to 2000 and detailed on the EU member countries, is shown below.

**Table 3.** Average annual growth rate of investment in the EU member countries, in the 1995-2007 period, by sector groups (%)

	Total	Metallic products and machinery	Transport equipment	Houses construction works	Construction works other than houses	Other products
<b>Austria</b>	1.9	1.9	4.6	-1.1	2.0	9.5
<b>Belgium</b>	3.5	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Bulgaria</b>	11.0	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Cyprus</b>	4.7	6.8	4.6	4.2	4.0	-7.4
<b>Czech Republic</b>	2.9	3.8	13.6	5.0	-1.1	3.1
<b>Danemark</b>	4.5	4.8	2.0	6.6	1.2	10.9
<b>Estonia</b>	12.1	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Finland</b>	5.4	5.3	3.4	5.9	5.3	6.5
<b>France</b>	3.7	3.7	6.8	2.6	2.7	8.4
<b>Germany</b>	1.2	n.a.	n.a.	-1.2	-2.0	6.8
<b>Greece</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Ireland</b>	8.6	7.0	9.7	8.0	10.1	9.3
<b>Italy</b>	2.5	2.4	3.5	1.9	2.6	3.1
<b>Latvia</b>	17.5	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Lithuania</b>	12.6	16.5	19.7	6.9	9.8	18.7
<b>Luxembourg</b>	6.2	7.4	6.2	1.1	6.3	13.3
<b>Malta</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Netherlands</b>	3.4	6.3	3.1	2.3	1.5	5.6
<b>Poland</b>	7.4	8.3	12.7	8.5	5.1	19.4
<b>Portugal</b>	2.6	n.a.	n.a.	n.a.	n.a.	n.a.
<b>United Kingdom</b>	4.9	7.0	2.4	2.9	4.0	4.3
<b>Romania</b>	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Slovakia</b>	5.9	4.2	8.0	10.6	4.7	17.1
<b>Slovenia</b>	7.3	9.4	9.9	5.1	5.8	8.1
<b>Spain</b>	6.2	6.9	8.9	7.7	3.7	6.7
<b>Sweden</b>	4.7	5.6	9.9	7.4	0.4	5.6
<b>Hungary</b>	5.9	n.a.	n.a.	n.a.	n.a.	n.a.
<b>EU15</b>	3.4	4.6	5.3	2.0	2.2	5.4
<b>EU25</b>	3.5	4.8	5.6	2.1	2.4	5.5
<b>EU27</b>	3.6	4.8	5.8	2.2	2.4	5.5

Note: Investment are presented using the indicator GFCF calculated from data expressed in constant terms (reference the year 2000)

Source: EU industrial structure 2009, p. 122

The figures in the table highlight the large discrepancies between the investment efforts of the EU countries, the highest rates being registered, throughout the mentioned period, in Latvia, Lithuania, Estonia and Bulgaria, which achieved rates of over three times the Community average.

In the Romanian manufacturing industry, role played by investment in shaping the industrial structure was very modest as compared to considerable requirements of productive activity modernization and industrial production structure change. The investment demand was drastically diminished by the lack of required domestic capital, the slow pace of privatization, the reduced attractiveness of many companies for foreign investors, the legislative instability, the growth of arrears.

The modest role of investment in manufacturing industry structural change became manifest despite the fact that this industry was the beneficiary of most of the investments made in the industry. For example, in 2008, the industry, including electricity, gas and water, absorbed 32.2% of total net investments made throughout the economy (services - 50.8%, construction - 13.6%, agriculture, forestry and fishing - 3.4%, according to NACE Rev. 2)<sup>3</sup>; the share of manufacturing industry in total volume of investment in industry was 68.1% in 2008, compared with 14.2% in the mining industry and 17.7% in electricity, gas and water.

During the 2000-2007 period, the index of net investments throughout manufacturing industry was, taking as a basis year 2000, 165.8; for comparison, the index for that period was in the national economy, of 235.9, and at the level of industry as a whole – of 168.9. One can therefore draw the conclusion that manufacturing industry has, on the whole, a modest position in terms of investment in response to a greater investment demand; modest also in relation to the privileged position it had in periods prior to 2000, as a result of more massive investments made in other branches of national economy, particularly in services (for enlightening, we specify that the net investment index during 2000-2007 period was 663.5 in construction sector, 313.8 in trade, 262.4 in public administration and defense, of 45.1 times in education, of 21.4 times in health and social assistance, 510.7 in other activities of the national economy)<sup>4</sup>.

Among the manufacturing industry sectors the variation of investment carried out was considerable. The industrial sectors ranking depending on the net investment index throughout the 2000-2007 period is shown in the next table.

**Table 4.** Ranking of manufacturing industry sectors by the net investment index registered during the 2000-2007 period (CAEN Rev. 1)

Level of indexes	Sectors
<b>Very high (over 500)</b>	Waste recovering (602,6) Jeans of road transport (586,1)
<b>High (200-500)</b>	Metallic construction and metal products (491,3) Jeans of transport not included in road transport (247,8) Crude oil processing, coal coking and nuclear fuel treatment (240,8) IT and office jeans (233,4) Publishing houses, polygraphy and recording reproducible registrations (230,9) Medical, precision, optical watchmaking instruments and apparatus (218,4)
<b>Medium (100-200)</b>	Tobacco products (190,2) Food and beverages (184,3) Manufacturing of construction materials and other products of non metallic minerals (176,0) Wood and wooden products manufacturing (161,7) Rubber and plastic products (153,6) Electric machinery and appliances (138,7) Machinery and equipment (except electrical and optical equipment) (138,5) Chemical substances and products (132,4) Furniture and other activities not elsewhere classified (131,7) Metallurgy (121,1) Pulp, paper and paper products (117,5)

<sup>3</sup> Romanian Statistical Yearbook 2009, INS, Bucharest, 2010, p. 580

<sup>4</sup> Ibidem, par. 12.5

<b>Low (under 100)</b>	Leather and footwear (86,8)
	Textiles products (74,1)
	Clothing articles (67,9)
	Radio, TV and communication equipment (30,0)

Source: Romanian Statistical Yearbook 2008, INS, Bucharest, 2009, par. 12.7

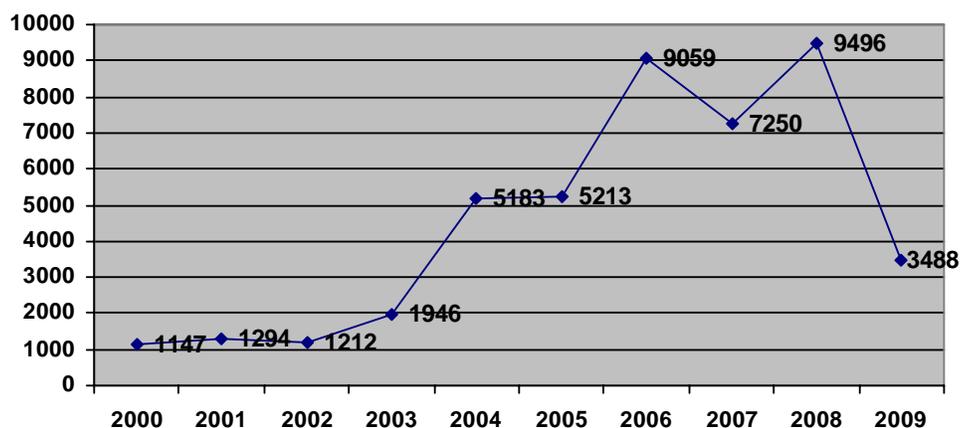
The sectors that absorbed the largest investments in the mentioned period were Waste recovery, as a result of higher investment demand due to requirements imposed by the EU for membership, and Means of road transport, following massive foreign direct investment made by Renault, which contributed to the growth and competitive advantages strengthening of this sector.

Among the sectors with high index of net investments are two considered by the OECD as having high technological level - Means of computers and office machinery and Medical, precision, optical watchmaking instruments and apparatus, an encouraging fact which, however, should be understood in its real size, given the modest reference basis; the other sectors present at this level are of medium-low and low technology.

Sectors with relative reductions of net investment index (below 100) are the same disfavoured also from other approaching angles previously treated, what proves, once more, the lack of prospects to recover and to turn them into long term competitive sectors.

Foreign direct investment (FDI) had a notable contribution to the structural configuration of the manufacturing industry; this type of investment, beyond the financial effort, presents considerable advantages of achieving a substantial technological know-how, managerial and marketing transfer, as well as opening access to international markets with high barriers to entry by "lending" an acknowledged brand image to domestic producers; for these obvious advantages, the FDI demand is very high.

According to the Romanian Agency for Foreign Investments (RAFI), FDI attracted by Romania in the period 2000-2009 were those presented in the following figure.



**Fig. 6.** FDI made in Romania in years 2000-2009 (million EUR)

Source: ARIS, FDI Statistics (updated January 2011)( [www.arisinvest.ro/sitemap](http://www.arisinvest.ro/sitemap) )

FDI stock at the end of 2009 was EUR 49.984 million, by 8.4% higher than at the end of 2008. FDI has been directed, predominantly, towards the manufacturing industry - 31.1% of the total, the most attractive sectors proving to be Crude oil processing, Chemical substances and products, Rubber and plastic products (6.3%), Metallurgy (5.2%), Transport means (4.7%), Food, beverages and tobacco (4.1%), Manufacturing of construction materials and other non-

metallic mineral products (3.3%). The most modest FDI were recorded in the sectors of Textile products, Garments and Leather and footwear (only 1.4 together).

By development regions, FDI has been directed to the Bucharest-Ilfov (63.4%), Central Region (7.4%), South (7.2%), Western Region (6.2%), Region South- East (5.9%). North-East region was the least attractive, with only 1.9% of the total <sup>5</sup>.

## Conclusions

The performed analysis showed that considerable potential of FDI to modernize the manufacturing industry was not properly capitalized, Romania continuing to present significant drawbacks compared to other countries in Central and Eastern Europe more advanced in economic reform process. Instability of the legal framework, unfriendly business environment, bureaucratic burden, lack of transparency, corruption, slow pace of privatization were the main causes of largely discouraging foreign investors until 2004, and subsequently to a lesser extent, causing them to turn to other countries in the region which offers more attractive conditions for initiating and strengthening business; this explains the much lower degree of penetration of foreign capital in the Romanian economy as compared to the Czech, Polish and Hungarian one.

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## Influența cererii asupra competitivității industriale a Uniunii Europene și a României

### Rezumat

*Articolul tratează influența exercitată de cererea de pe piața de produse și servicii și de cererea de investiții asupra competitivității industriei prelucrătoare și a sectoarelor ei componente. Din analiza efectuată au fost trase concluzii relevante, îndeosebi în ceea ce perspectivele cererii și posibilitățile de a le valorifica profitabil.*