CONSIDERATIONS UPON ROMANIA'S MANUFACTURING COMPETITIVENESS IN THE EUROPEAN CONTEXT

Vasilescu Felician
Academy of Economic Studies

Luțan Iustina
Academy of Economic Studies

Rujan Ovidiu
Academy of Economic Studies

Manufacturing structure is essential to ensure the dynamic equilibrium of the whole economy. In fact, this industry is the one that disseminates through the organization and conduct of business as well as by the products delivered, elements of technological progress and new, modern work methods, with significant economic effects. Today in the Romanian industry, an urgent matter is material and energy cost savings thus increasing the value added. According to the economic development, within the industrial structural changes, usually occur the following main trends: the declining share of production from mining industry, while increasing the intermediate and final production, the declining share of industries with labor intensive and reduced complexity and diminishing, starting from a certain development level, of the share of industries with intensive natural resources deficits, especially energy resources, increasing the branches characterized by intensive and highly skilled labor, priority development of branches based on inventions vastly incorporating R&D, etc.. Some of those trends are increasingly emphasized by research, technological transfer and international trade, processes that enhance the interdependence between and within national economies. Labor-intensive industries reduce their share in total industry in developed countries. Demand for products manufactured by these industrial branches begins gradually to be met by developing countries. Production based mostly on the traditional technologies, easily transferable, is moving gradually from more developed countries to least developed ones. In contrast, in the industrialized countries are rapidly developing those industries incorporating important R&D results. These processes had been the subject for several specific research.
Although labor productivity decisively influence GDP per capita during long periods of time, the correlation between GDP annual growth rate and labor productivity growth rate differs between countries.
GDP per capita is strongly and positively correlated in most countries with labor productivity per capita relative to production and income per capita relative to consumption.
Keywords: Labor intensive industries,Energy intensity, Value added in manufacturing, Highly skilled labor, Capital intensive goods.
JEL Codes:F14 - Country and Industry Studies of Trade, F15 - Economic Integration

Introduction

Concept of economic structure and specialization in production of a nation has been dominated by Ricardian doctrine of comparative cost. (Krugman, Obstfeld and Melitz 2012: 25-26). Hence the need for countries in production specialization, considering the available resources and international trade advantage, as well as the possibility of a fair distribution of benefits resulted from international trade exchanges for all countries participating in the international division of labor, due to competition that occurs in world economy. It was concluded that this theory was based upon unacceptable and unverifiable assumptions, such as, for example, the fact that quantity and quality of production factors are immobile within the international relations, etc. and considered a single production factor: labor. J. Viner, noted that such a simplification raised a

barrier to exploring the consequences that differences between regions and countries have upon the production factors endowment.(Viner 1957: 19).The matter concerning the production factors endowment of a national economy in analyzing the production and foreign trade structure, has become a fundamental issue of economic research, first ones to tackle this were the Swedish E. Heckscher and B. Ohlin.(Ohlin 1967: 43-57; Krugman, Obstfeld and Melitz 2012: 97-99).According to their theory, the geographical distribution of the production factors is particularly important, influencing the specialization in production and development.

Previous research

In general, the inequity specialization is obvious for those countries to export only goods characterized by intensive unskilled labor and low productivity level for importing goods intensive in highly qualified labor and a higher productivity level.Emphasizing the independence of the industrial structures relative to natural sources is accompanied by increasing national dependency towards the world market. So, the dependence gradually moves from the national economy to the world economy through foreign trade. This tendency results from the development path in a large number of countries, for which the satisfaction degree for natural resources demand from own production decreased significantly. Within the development stage in which the tertiary sector starts to grow, the industries with high consumption of natural resources gradually reduce their weight, for capital-intensive ones and especially those that encounter highly skilled labor and apply the latest R&D results.

Methodology

G. Fels and F. Weiss point out that there are some characteristics of these structures, relative to the development stages mentioned: gradually moving, in accordance with the economic development, from labor intensive industries to large consuming natural resources and hence to the standard goods producing industries, where in general, production technologies are well known and easily accessible(Fels and Weiss 1977: 32; Trefler 2005:21-29;Eicher, Mutti and Turnovsky 2009:88 – 98).Labor-intensive industries reduce their share in total industry in developed countries. Demand for products manufactured by these industrial branches begins gradually to be met by developing countries. Production based mostly on the traditional technologies, easily transferable, is moving gradually from more developed countries to least developed ones. In contrast, in the industrialized countries are rapidly developing those industries incorporating important R&D results(Bowen, Leamer and Sveikauskas 1987: 791–809).These processes had been the subject for several specific research.Although labor productivity decisively influence GDP per capitaduring long periods of time, the correlation between GDP annual growth rate and labor productivity growth rate differs between countries. In the developed ones the association is stressed positive, productivity being the main engine of growth. In the less industrialized countries the mentioned correlation is weaker, suggesting that other factors determine the economic performance of a country in a given year. (Srebotnjak,Hizsnyik and Toth 2011:2). GDP per capita is strongly and positively correlated in most countries with labor productivity per capita relative to production and income per capita relative to consumption.

Results

Negative correlation between GDP per capita and energy intensity is apparently valid in most countries, highlighting the fact that economies, as they become richer use less energy to produce one unit of GDP.(Srebotnjak,Hizsnyik and Toth 2011:5). Compared with other EU countries, Romania registers a modest performance. As regards the value added in manufacturing, the country is ranked 18, as outlined in Fig. No 1.

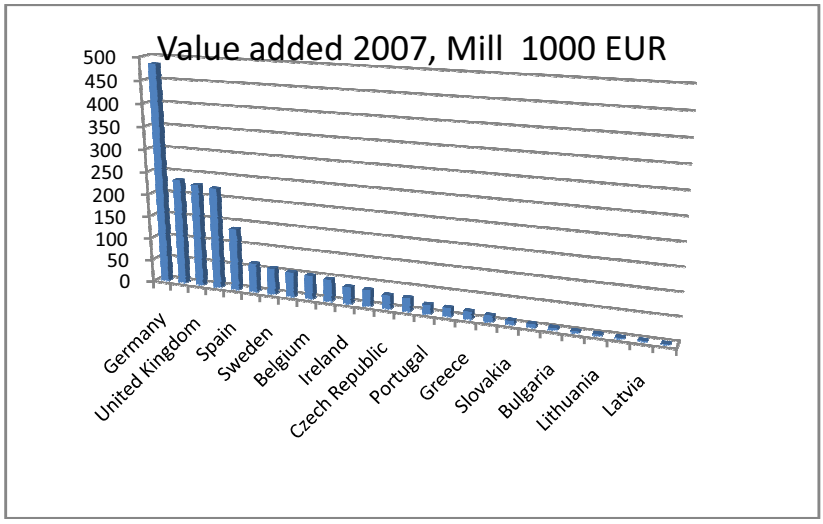
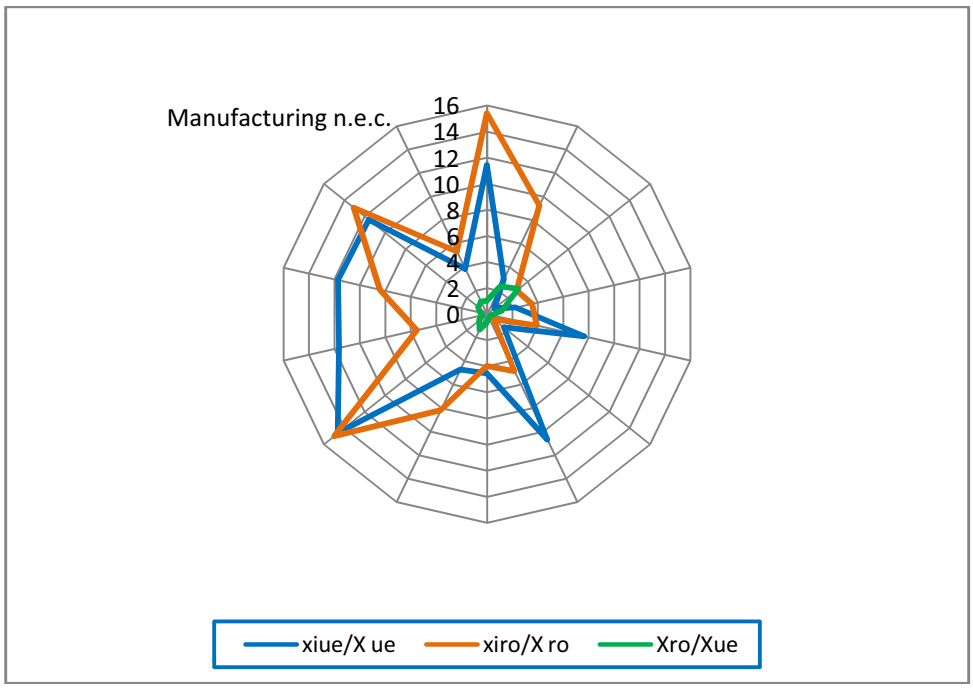


Fig. No. 1: EUmembercountriesvalue added in manufacturing, 2007
Source: EUROSTAT, Annual detailed enterprise statistics on manufacturing (NACE Rev.1.1 D), 06.03.2012

Fig. No 2 shows a comparison regarding the position of different branches within the Romanian manufacturing industry, and EU27 as well as the share of this industry in Romania and in the corresponding industries at EU27 level.



Figureno.2:ComparisonbetweenRomaniaand EU27 regarding theValue Addedindicator, theposition of manufacturing components in total andthe shareof Romanian manufacturing branches in EU27, during 2007.
Source: EUROSTAT, Annual detailed enterprise statistics on manufacturing (NACE Rev.1.1 D),

Another interesting comparisonistheRomania's position in theEU27 regarding the energy consumptionofmanufacturing sector, respectively the value added as shown in Fig. No. 3.

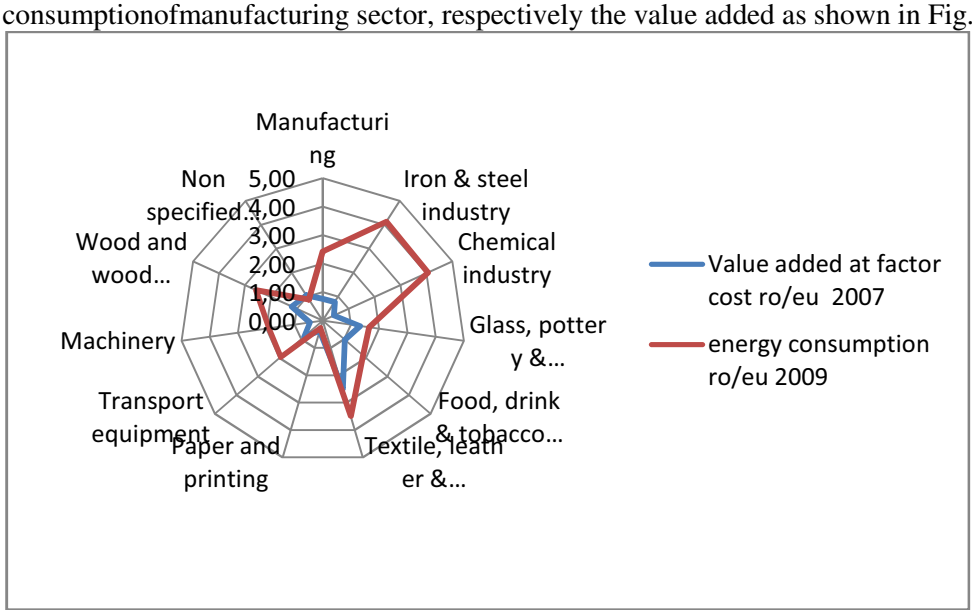


Fig. No. 3: Comparison between Romania and EU27 regarding the value added and energy consumptionofmanufacturing sector branches.
Source: EUROSTAT, Annual detailed enterprise statistics on manufacturing (NACE Rev.1.1 D), 06.03.2012 and Energy balance sheets 2009-2010,2012 edition

Conclusions

Only for a limited share, the supply of production factors can be adapted to different industries demand. In each region or country, the exported goods relatively contain in larger quantities the cheap factors, while imported goods incorporate scarce and expensive resources for the importing country. Romania exports particularly labor-intensive goods and imports capital intensive goods, hence the labor productivity aspect in general and especially in export industries being vital. Compared with other EU countries, Romania registers a modest performance. As regards the value added in manufacturing, the country is ranked 18. Comparison regarding the position of different branches within the Romanian manufacturing industry and EU27 highlights divergence,and the share of this industry in Romania and in the corresponding industries at EU27 level is almost insignificant. The Romania's position in the EU27 regarding the energy consumption of manufacturing sector, and the position regarding the value added are obviously divergent

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