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COMPETITIVENESS OF THE PRODUCTS AND ITS IMPACT ON THE STRUCTURE OF EXPORTS - THE CASE OF ROMANIA

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Abstract: *The paper analyse the evolution of the competitive advantages of the main products exported by Romania in the 2000-2014 period and the connection between this evolution and the current structure of Romanian exports. In the first part we calculated the Revealed Comparative Advantage Index (RCA) of Balassa, index for main groups of products exported by Romania the period 1990 to 2014 and we analysed the competitive advantage evolution. In the second part we presented the evolution of the structure of Romanian exports in 2010-2014 and we noticed that the recorded changes in structure of Romanian exports is in close correlation with the changing competitiveness of products exported by Romania. In this sense one of the most significant examples is given by the evolution recorded in exports of machinery and transport equipment that not only was raised every year but the sector succeeded and currently holds a competitive advantage in the market of these products - a market where it is knows is stiff competition. Although garment exports have recorded during the analyzed period the largest decrease, the advantages of the Romanian garment industry - labor force highly qualified endowing companies with machinery efficient, product quality achieved, flexibility and quick response to orders but also geographical position the country - still cause this sector recording still comparative advantages though its values are declining during the whole period analyzed.*

Key words: *international competitiveness, trade, specialization, exports, Romanian*

1. INTRODUCTION

The international context of the trade has changed dramatically in the last few years and will probably continue to do so under the impact of the global crisis, of the liberalization and globalization, which have determined a quickly delocalisation of the production and the capital, greater mobility of the factors of production, a reorientation of the trade flows in the international market and a great fragmentation and specialization of activities in the value chains. Due to the proliferation of global value chains, generated by the trying of the manufacturers to minimize costs and maximize profits, has become increasingly difficult to keep the value into the national economy.

International competitiveness is influenced by numerous and interdependence factors, which is why it is important to understand that competitive advantage can not come from protectionism, quotas or preferential market access but on the contrary all these causes doing stagnation, reducing the ability entrepreneurship and motivation for quality, innovation, efficiency and product development in private sector At European level the dinamic competitivity was given by the transition from GATT (The General Agreement on Tariffs and Trade) to OMC (Organisation Mondial of Comerce) when USA attacked the Community Common Customs Tariff; the argument "for" common customs tariff was based on the construction of the Union as a distinct agent of international trade. [1]

In these conditions, international competitiveness has become increasingly dynamic and competitive advantages are more volatile and less durable. Nonetheless, competitiveness is fundamental to sustainable development and modern economies are trying to continually create and recreate competitive advantages.

In this context we considered opportune to analyse the evolution of the competitive advantages of the main products exported by Romania in the 2000-2014 period and the connection between this evolution and the current structure of Romanian exports.

The main aim of this paper is analysis of evolution of the competitive advantages of of the main products exported by Romania in the 2000-2014 period and highlight how it this evolution has influenced the current structure of Romanian exports.

Methods of the scientific research that have been employed in the paper are scientific analysis and summarizing of literature, mathematic calculations, comparative analysis of statistic indexes.

The paper is organized in tree parts: the first part present the theoretical basis of the RCA and we calculated the Revealed Comparative Advantage Index (RCA) for the main groups of products exported by Romania. In the second part it was presented the evolution of the structure of Romanian exports in 2010-2014. The final part draws some conclusions based on the findings.

2. COMPETITIVENESS OF ROMANIAN INDUSTRY

The evolution of trade specialization is a phenomenon that reflect structural changes in the entire economic system of a country and needs time, since the comparative advantages in trade cannot be achieved in a short time, especially since they are structurally by definition.

A great importance in the study of the performance trade has specialization profile, usually measured by using the comparative advantage. In this paper we used for analyzing comparative advantages the Revealed Comparative Advantage Index (RCA) of Balassa (1965). The index of revealed comparative advantage, suggested that country’s revealed comparative advantage in the trade of a certain industry is assessed by the share of that industry in the country’s total exports relative to the industry’s share in total world exports of manufactures. [2] In a later work, Balassa restricted his analysis to manufactured goods only, as distortions in primary products, such as subsidies, quotas and special arrangements, would not reflect the real comparative advantage. RCA index represent post trade relative prices and a prevailing factor as well as product market distortions. [3] The RCA index is defined as the ratio of two shares. The numerator is the share of a country’s total exports of the commodity of interest in its total exports. The denominator is share of world exports of the same commodity in total world exports.

$$RCAij = (Xij / Xit) / (Xnj / Xnt) \qquad \textbf{(1)}$$

Where: X is exports, i is the country, j is the commodity/industry, n is the world or a set of countries, and t is all product groups.

On the basis of this index, a country is defined as being specialized in exports of a certain product if its market share in that product is higher than the average or, equivalently, if the weight of the product of the country's exports is higher than its weight of the exports of the reference area. A country reveals comparative advantages in products for which this indicator is higher than 1, showing that its exports of those products are more than expected on the basis of its importance in total exports of the reference area. There is some criticism of this method of analysis of competitiveness. The RCA has been criticized for taking only the exports into consideration while ignoring the imports. Another objection is the fact that if the country has a “comparative disadvantage”the index ranges from zero to one, whereas if it has a “comparative advantage”, the index ranges from one to infinity. [4]

A more detailed analysis, in order to demonstrate the power of international competitiveness, Balassa’s RCA index can be classified into four stages [5].

Table 1*: Classified of competitiveness functions of Balassa’s RCA index*

RCA	Stages of competitiveness
0 < RCA ≤ 1	no competitiveness
1 < RCA ≤ 2	week competitiveness
2 < RCA ≤ 4	moderate competitiveness
4 <RCA	strong competitiveness

Source: Hinloopen, J. (2001). On the empirical distribution of the Balassa Index. Review of World Economics, 137(1). 1-49

We calculated the Revealed Comparative Advantage Index (RCA) for main groups of products exported by Romania. The results are centralized in Table. 2.

Table 2*: Evolution of Romanian RCA (Balassa index) for main groups of products exported in the period 2000-2014*

	Chemicals	Clothings	Machinery and transport equipment	Office and telecom equipment	Pharmaceu-ticals	Textiles	Total fuels and mining products
2000	0.64	7.32	0.46	0.34	0.14	0.79	1.11
2001	0.53	7.78	0.50	0.30	0.09	0.89	0.91
2002	0.45	7.48	0.54	0.30	0.06	0.95	1.01
2003	0.45	7.52	0.55	0.26	0.05	1.11	0.85
2004	0.52	7.13	0.62	0.22	0.05	1.13	0.82
2005	0.55	6.29	0.69	0.17	0.06	1.26	0.86
2006	0.55	5.36	0.83	0.20	0.06	1.44	0.81
2007	0.54	4.32	0.96	0.20	0.11	1.41	0.67
2008	0.59	3.65	1.09	0.44	0.18	1.34	0.63
2009	0.44	2.99	1.28	0.67	0.37	1.30	0.53
2010	0.52	2.69	1.27	0.78	0.52	1.24	0.48
2011	0.57	2.54	1.31	0.85	0.59	1.22	0.45
2012	0.62	2.53	1.30	0.53	0.72	1.28	0.43
2013	0.54	2.15	1.34	0.41	0.68	1.20	0.41
2014	0.48	2.04	1.31	0.38	0.56	1.17	0.45

Source: Calculated by the authors according to the WTO dates

Analyzing the competitive advantage evolution recorded by Machinery and transport equipment industry is observed constant increases from year to year, throughout the analyzed period and since 2008 the sector has a competitive advantage on the world market of these products. Although garment exports have recorded the largest decrease during the analyzed period, the advantages of the clothing sector in Romania - highly qualified workforce, endowing companies with efficient machinery, product quality achieved, flexibility and quick response to orders but also the geographical position of the country - has determined to still have comparative advantages this sector though its values are declining during the whole period analyzed.

The export of pharmaceuticals although it has significant increases in recent years, reaching at $ 1,127 millions, in 2014, still have competitive disadvantage in the global market of these products. Total fuels and mining products are significantly reduces, representing 9.05% out of total Romanian exports in 2014 compared to 14.64% it was represented in 2000. By point of view competitiveness is observed the continued decrease the value of RCA - values that indicate an export disadvantage with this products.

Agricultural exports holds the second in the top of Romanian exports in 2014, this one being $ 8,847.39 million. Nonetheless Romania still has competitive disadvantage at export food products to the world market.

The export of chemicals retains its the share in Romanian exports and is still a field that does not have competitive advantage on the world market of these products.

3. THE EVOLUTION OF THE STRUCTURE OF ROMANIAN EXPORTS

By comparing the structure Romanian exports from 2014 to that in 2000 stands out increasing the share in total exports of agricultural exports from 7.99% in 2000 to 12.69% in 2014, the share of exports of machinery and transport equipment from 18.91% at 42.01%, reaching in 2014 to have the largest share of total exports of Romania and increasing the share of exports of pharmaceuticals from 0.23% to 1.87% in 2014. In contrary have evolved shares of owned garment exports which registered the largest decrease from 22.41% to 5.20% and exports of fuels and mining products which significantly reduces reaching 9.05% in 2014 compared to 14.64% as represented in 2000. For the remaining product categories were not recorded significant changes in shares held in total exports. (See fig. No. 1)

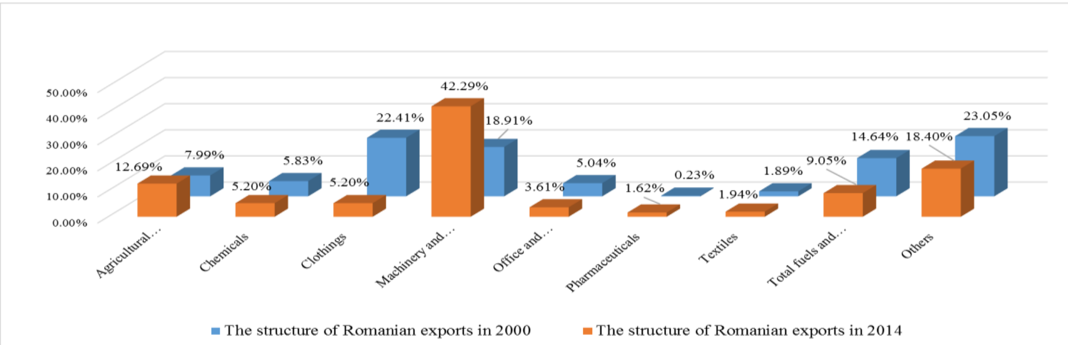


Fig. 1: *The structure of Romanian exports in 2000 and 2014*

Because the biggest changes were recorded in domain of the Machinery and transport equipment and in the garments domain, these fields were analyzed in detail in the following.

Machinery and transport equipment ranks first in Romanian exports in 2014, with $ 29,492 million. This position is due mainly to the applied technologies, high technological level, increased productivity, the big specialization degree and not least the high level of quality products - demonstrated by undoing on the EU markets (mostly exports from section SITC 7 being EU market- see fig. 2)

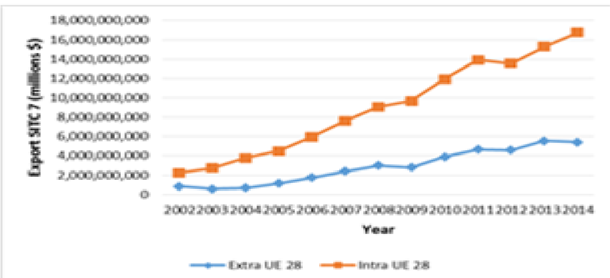
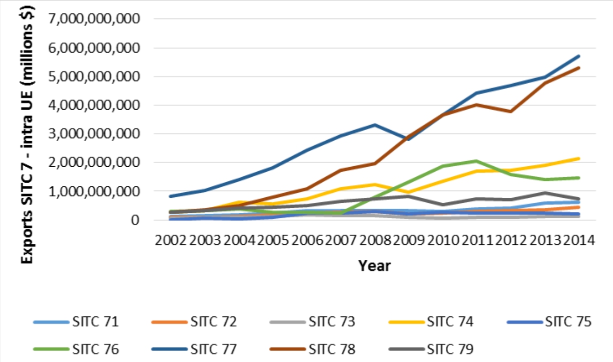


Fig. 2: *Evolution of Romanian exports of section 7 SITC - intra and extra EU markets*

As it can be seen from the figure 3 and 4, the main growth on the EU market and Extra EU market is registered in division 78 - ROAD VEHICLES (INCLUDING AIR-CUSHION VEHICLES). A important increase was also registered in exports of Electrical machinery, apparatus and appliances, n.e.s., and electrical parts thereof (including non-electrical counterparts, n.e.s., of electrical household-type equipment) on the EU markets (SITC 77)



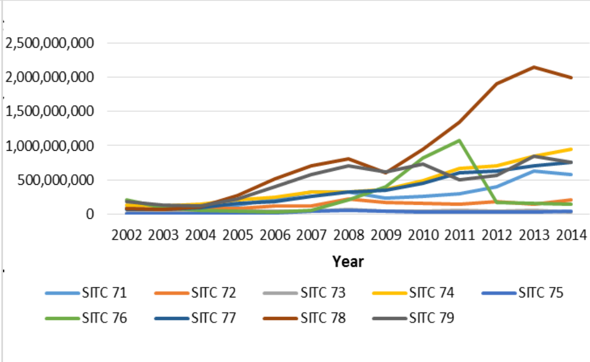


Fig. 3: *Evolution of Romanian exports on divisions of section SITC 7 - intra EU market*

Fig. 4: *Evolution of Romanian exports on divisions of section SITC 7 - extra EU market*

Garment exports have recorded during the analyzed period the largest decrease, down from the first place - in 2004, when they represented 20.08% of total exports on the 6th place in 2014, when it represents only 5.20% of total exports. (See fig. No. 5) Dynamics of exports this subsector, from year to year, was influenced by a number of factors such as liberalization of trade in 2005, reducing production type Lohn, changing consumer demands etc. These have determined structural changes in this sector and have led to a reorientation of Romanian producers on the domestic market and to development some autochthonous brands recognized worldwide.

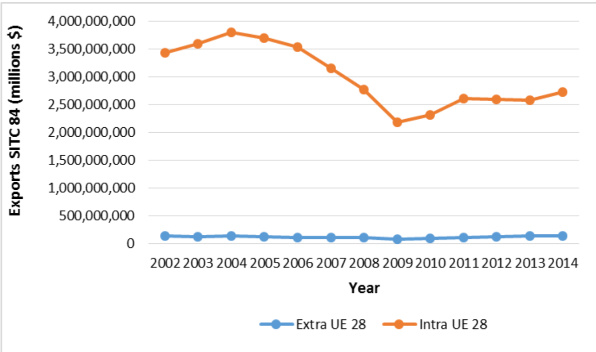


Fig. 5: *Evolution of Romanian exports of division SITC 84 - intra and extra EU markets*

The main types of exported products of this section are during the whole period analyzed, products of the type coats, capes, jackets, suits, blazers, trousers, shorts, shirts, underwear, nightwear and similar articles of textile fabrics, not knitted or crocheted - for men's or boys and women's or girls, products belonging to groups 841 and 842 - according to SITC Rev. 4, as the market intra and extra EU. (See fig. No. 7 and 8)

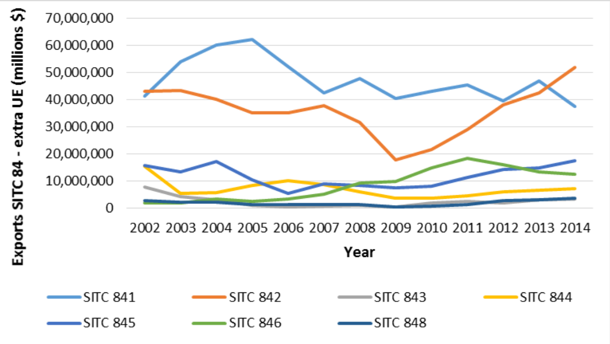


Fig. 6: *Evolution of Romanian exports on groups of division SITC 84 - extra EU markets*

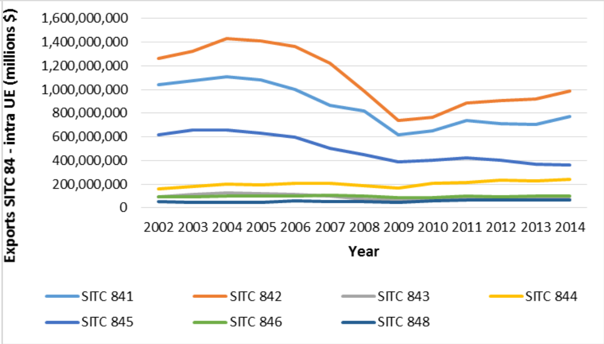


Fig. 7 : *Evolution of Romanian exports on groups of division SITC 84 – intra EU markets*

From of the above it is apparent that the dominant characteristic of the evolution of Romanian trade in the last two decades was dynamic growth of trade flows with processed products and a growth the share of this in total trade.

4. CONCLUSIONS

Recorded changes in structure of Romanian exports is in close correlation with the changing competitiveness of products exported by Romania. In this sense one of the most significant examples is given by the evolution recorded in exports of machinery and transport equipment that not only was raised every year but the sector succeeded and currently holds a competitive advantage in the market of these products - a market where it is knows is stiff competition.

Although garment exports have recorded during the analyzed period the largest decrease, the advantages of the Romanian garment industry - labor force highly qualified endowing companies with machinery efficient, product quality achieved, flexibility and quick response to orders but also geographical position the country - still cause this sector recording still comparative advantages though its values are declining during the whole period analyzed. A special attention will be given to this sector who no longer can be based on the advantages presented above and will have to find new solutions in the future to face the increasing competition coming especially from the underdeveloped countries.

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