The Leading Economic Sectors Building Comparative and Competitive Advantages in Romania's Foreign Trade

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Abstract. *For now on, as a member state of the EU, Romania and the Romanian commercial operators should maximize the foreign trade's opportunities given by the rich portfolio of free trade agreements of the European Union and try to reorient our exports towards countries where the products of which the structure of our Romanian exports is consisted of hold a comparative and competitive advantage, in order to reduce the Romanian long-term trade balance deficit. Therefore, this paper focuses on finding out the leading sectors with high potential to maintain and consolidate the comparative and competitive advantages of the Romania's foreign trade.*

Key words: Romania's foreign trade comparative and competitive advantages; foreign trade specialization.

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JEL Codes: F14, F15, O24.
REL Codes: 10D, 10E.

1. Introductory remarks – some theoretical approaches

The evolution in time of the trade specialisation is a phenomenon reflecting structural changes in the entire economic system of a country. In general, it needs time to make these changes because the comparative advantages in trade are not gained in a short time, especially because they are structural by definition. Of course that, if the phenomenon is a rule, there are some exceptions, for example, when there are drastic changes in the ways of production as being determined by external factors, such as the spreading of a complete technology or vast institutional changes (for example, to take into consideration the situation of former communist countries which acceded to the EU in 2004 and 2007, respectively).

A major importance in studying the foreign trade's performance of an economy is given by the profile of the specialisation, usually measured with the help of the comparative advantage. In spite of all these, a country's specialisation in a certain sector can be measured by different indicators, their choice depending on several factors, which relay on the main features of its economy. As a result, the specific analysis carried on in this paper implied the use of several indicators attentively selected and calculated (i.e. *the indicator of Revealed Comparative Advantage - RCA, Michaely indicator, Lafay indicator, Grubel-Lloyd inter-branch trade indicator*), pointing out advantages and disadvantages of each indicator from the point of view the characteristic aspects and influences of the Romanian foreign trade in the analyzed period.

For these considerations, the use of the *Indicator of the Revealed Comparative Advantage (RCA),* proposed by B. Balassa in 1965, was found appropriate for our analysis, being well known that it compares the relative size in a sector in a certain country in the total of exports made by that country with the relative size of the exports of a certain sector in a certain area given the exports of that particular area. This indicator, referring to the international specialisation of an economy, has the following formula:

$$RCA = \frac{x_j^i \Big/ \sum_{j=1}^{N} x_j^i}{x_j^{Wi} \Big/ \sum_{j=1}^{N} x_j^{Wi}} \qquad (1)$$

where:

x_j^i – represents the exports from product *j* of the country i, and

x_j^{Wi} – represents the aggregate world export from product *j*.

The concept of *Apparent* or *Revealed Comparative Advantage - RCA* is widely used in practice to determine the weak or strong sectors of a country. If RCA is higher than 1, the country for which the indicator is computed has a comparative advantage in the product (or sector) *j*, because this product is more important for the exports of that particular country than on the world level.

But considering the entire world a group of reference has certain gaps due to the fact that the results obtained might be unsatisfactory in the case of some comparisons among countries. This is due to the fact that the countries perform external trade in the best conditions with countries in the geographical proximity so that taking into account the world exports could not always be relevant. Due to this reason, Balassa indicator suits much better to the situation when to the denominator is considered a reduced group of countries as reference, a group to which that particular country belongs to. Balassa's apparent comparative advantage represented the starting point in the methodology of internal or external comparative advantage expression which has the import also in its computation formula. *The internal apparent comparative advantage* can be computed thus according to the following formula:

$$RCA = ln(Xir/Mir)/(Xr/Mr) \quad (2)$$

where:

i – represents the product or the group of products;

r – region;

X – Exports;

M – Imports.

If we follow the efficiency relative to the partner country, then the external apparent comparative advantage can be computed according to the formula:

$$RCA = ln(Xir/Xr)_{(1)}/(Mir/Mr)_{(2)} \quad (3)$$

Formula 3 reflects the share of exports of the good i in the exports of that particular country (country 1), in relation to the share of the good in the imports of the partner country (country 2). The analysis of the comparative advantages allows the identification of opportunities and instruments meant to support the exports in the future. Thus, the highest importance in characterising the foreign trade of a country is represented by the computation of the internal comparative advantage which allows the emphasising of the comparative advantage of the trade from a group compared to the total foreign trade.

Beginning with these arguments regarding the manner of computation of the revealed (apparent) comparative advantage, by considering a more reduced group of reference to which the country for which the analysis is made belongs, CEFTA could have been considered well suited to the computation of Romania's comparative advantage indicator in the relation with the countries in the particular free trade area. In this view, many Romanian authors (e.g. L. Voinea, D. Dăianu, B. Păuna, M. Stănculescu, F. Mihăescu in Dăianu D., 2002, p. 230) were coming out, with valuable studies for the specialty literature and conclusions referring to the trend of Romania's comparative advantage in the relation with the CEFTA member countries. Referring though to the current situation, we considered that due Romania turning out CEFTA, this analysis does not present relevance anymore in computing Romania's apparent comparative advantage in the relation with the neighbouring countries and other countries of the region which are more important from a commercial and economic point of view, especially because in 2004 they left CEFTA, as a result of their accession to the EU.

In the specialty literature though we found some computations regarding Romania's comparative advantage in the relation with the EU, to whose conclusions we are to some extent reluctant. This reluctance is due to the fact that Romania, in the period analysed in these studies, did not belong to the EU, and Balassa's rationale, regarding the computation of the comparative advantage, was oriented to a comparative advantage of the country in its relation to the *world* from which, obviously, that particular country belonged to, in order to observe the part-whole relation. The Association Agreement and the higher and higher liberalization of the Romanian foreign trade with the EU at the time can constitute a reason for which in the specialty literature there are computations regarding this indicator.

Due to comparability reasons between the comparative advantage with the EU and the comparative advantage with the world at a whole, we have also reduced the reference group, in this view coming to our mind the arguments of those who criticised the computation of a global indicator, due to the fact that it would not take into consideration the basic criterion in the external commercial exchanges, that is the criterion of geographical proximity. Indeed, it is difficult to refer to a comparative advantage with the entire world as long as in our country, as the official statistics also suggests, we perform the highest part of exchanges with the European Union countries.

The comparative advantage indicator reflects the extent to which Romania capitalised its cost relative advantages. Based on this indicator, we can draw conclusions regarding the apparent capacity of Romania to capitalise its advantages in comparison with other of its sectors and those of the EU, but also regarding the weight of the main sections of products in generating the commercial deficit. One must point out however that the comparative advantage indicator does not take into consideration the implications of the other factors of production, such as: technological or energetic intensity, the labour force consumption, the supply with domestic raw materials, investment efforts. In spite of all these, the indicator is relevant to the extent to which it reflects the sections of domestic products we are specialised in and which we export preponderantly. Based on the results then should not be difficult anymore to draw out some objective conclusions regarding the labour force consumption that they require and the technological equipment.

2. The analysis of the Romania's external trade comparative advantages during 1991-2006

In what follows we are going to present the results we obtained regarding Romania's comparative advantage during 1991-2006, while trying to join the EU, for all the sections of products classified upon the Combined Nomenclature (CN). The computations were made based on the official statistic data stated in ECU/Euro, for the entire period taken into consideration. With regards to the statistic datum made use in this paper, which are so useful along this kind of analyses, I exactly considered the international and Romanian trade reference sources, namely INSSE (National Institute of Statistics - Romania), BNR (National Bank of Romania), ANV (National Customs Authority – Romania), Foreign Trade Department of Romania (DCE), UNCTAD, WTO, OECD and EXTRASTAT. Of course, these elementary data needed supplementary calculations and adjustments because they were nowhere accurately supplied in economic publications as to be used in the intended analysis cover the 1990-2006 period. Here we refer to a unitary system of indicators – foreign trade volume, export volume, import volume, export per inhabitant, etc. – for each year belonging to analyzed period, all these being included in a compact and harmonized personal created statistic data basis.

As it regards the interpretation of the results below, we remind the fact that the results obtained from the computation formula of the comparative advantage (Formula 2) are favourable, if the value of the indicator is positive, if the group of products or the product considered is more efficiently commercialised, compared to the trade in total, and unfavourable if the indicator's value is negative, case in which the group or that particular products register comparative disadvantages. In Table 1, we marked as bold figures the sections of products which register comparative advantages, the positive values of the indicator, respectively.

It can be noticed therefore only a few sections of products for which the results are positive in the entire period considered. Principally, the section of *Wood and articles of wood products (Section IX), Textiles and textile articles (XI)*, *section of Footwear (XII), section of Base metals and articles of base metal (XV)*, respectively – excepting the year 2006, when it has a negative value, and the *section of Miscellaneous manufactured articles*, mainly *furniture (XX)* registers positive values of the comparative advantage. For the rest of the sections, even though it registers positive values, too, these are small and most of the times the trend is descending so that they become negative. If for the section of *Wood and articles of wood products (Section IX)*, the tendency is ascending until 1999, only at the end of the period– 2000-2006 – noticing lower values, descending, for section XX (mainly furniture), the trend is continuously descending, an explanation residing in the fact that at exports, the price of furniture highly depends on the raw material prices which, if ascending, are reflected in the unfurling of the internal producers; activity which diminishes the domestic production of furniture. Moreover, the domestic production did not correspondingly re-adapt to the tendencies registered by the market demand. As for example, the years 2000-2005 were dominated by a preponderant demand for synthetic wood furniture (PAL), but the domestic industry has not the necessary technology to produce a sufficient quantity from this material; as a result, it was massively imported and as used to satisfy the internal demand for such furniture, due to which the exports registered reductions in the comparative advantage and competitivity, our country being mostly specialised and externally well-known for its traditionally production of massive wood furniture.

The evolution of Romania's external trade apparent comparative advantage, 1991-2006

Table 1

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	*1.69*	*1.10*	*1.16*	*0.92*	*0.35*	*1.04*	*1.49*	-1.12	-0.07	-0.20	-1.05	-0.92	-0.44	-0.92	-1.78	-1.91
II	-2.28	-3.10	-2.83	-0.91	*0.39*	*1.15*	-0.04	-0.33	*0.15*	-1.05	-0.85	-0.59	-1.70	-1.34	-0.67	-0.44
III	-1.08	-2.57	*1.42*	*0.52*	*1.35*	*1.64*	*1.74*	*0.31*	*0.66*	-0.69	-0.42	-2.50	-0.97	*0.29*	*0.09*	-0.41
IV	-3.11	-3.19	-2.87	-2.04	-2.73	-2.44	-1.86	-2.47	-2.34	-2.37	-2.40	-2.09	-2.34	-2.55	-2.68	-2.87
V	-1.97	-1.82	-1.58	-1.14	-1.59	-1.92	-1.77	-1.71	-1.14	-1.05	-1.42	-0.85	-1.18	-1.32	-1.06	-1.14
VI	-0.51	*0.03*	-0.53	-0.17	-0.33	-0.51	-0.70	-1.59	-1.36	-0.92	-1.21	-1.46	-1.45	-1.38	-1.31	-1.71
VII	-0.47	-1.06	-1.23	-0.54	-0.86	-1.19	-1.17	-1.53	-1.19	-1.18	-1.63	-1.30	-1.23	-1.07	-1.18	-1.32
VIII	*0.46*	-1.63	-1.57	-1.14	-1.79	-2.28	-1.91	-2.27	-1.91	-1.63	-1.74	-1.65	-1.72	-1.66	-1.83	-1.92
IX	*1.60*	*2.24*	*2.35*	*2.44*	*1.99*	*2.48*	*2.51*	*2.65*	*2.47*	*2.40*	*2.15*	*1.85*	*1.86*	*1.73*	*1.40*	*1.38*
X	-0.79	-2.42	-2.19	-1.63	-1.32	-2.21	-1.84	-2.72	-2.12	-1.61	-1.63	-1.56	-1.79	-1.80	-2.35	-2.75
XI	*0.68*	-0.30	*0.23*	*0.41*	*0.34*	*0.36*	*0.29*	*0.24*	*0.15*	*0.20*	*0.24*	*0.23*	*0.31*	*0.34*	*0.35*	*0.33*
XII	*0.89*	*0.80*	*1.61*	*1.79*	*1.81*	*1.99*	*1.67*	*1.60*	*1.59*	*1.60*	*1.85*	*1.79*	*1.89*	*1.86*	*1.87*	*1.90*
XIII	*0.02*	*0.66*	*0.61*	*0.55*	*0.37*	*0.06*	*0.07*	-0.05	*0.04*	-0.14	-0.40	-0.47	-0.70	-1.06	-1.58	-2.09
XV	*1.31*	*1.43*	*1.66*	*1.29*	*1.25*	*0.81*	*1.13*	*1.00*	*0.80*	*0.77*	*0.39*	*0.39*	*0.29*	*0.40*	*0.20*	-0.06
XVI	-0.26	-0.84	-1.29	-1.19	-1.52	-1.86	-1.69	-1.76	-1.17	-1.00	-1.01	-0.81	-0.96	-0.88	-0.97	-1.00
XVII	*1.68*	*0.68*	*0.48*	*0.19*	*0.10*	*0.09*	*0.21*	-0.18	*0.09*	-0.11	-0.40	-0.34	-0.52	-0.98	-0.93	-0.97
XVIII	-2.68	-2.60	-3.08	-2.72	-3.41	-3.34	-3.15	-2.83	-2.57	-2.70	-2.61	-2.47	-2.53	-2.16	-2.10	-2.18
XX	*3.47*	*2.80*	*2.21*	*1.57*	*1.50*	*1.43*	*1.23*	*1.18*	*1.10*	*0.99*	*1.09*	*1.02*	*1.05*	*1.09*	*0.84*	*0.64*
XXII	*0.70*	-1.03	*0.40*	*0.06*	-0.86	-1.61	-1.92	-1.66	-0.09	*0.25*	*0.48*	*1.18*	*1.24*	*0.71*	*0.43*	*0.18*

Source: Personal computations based on statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

The comparative advantage is positive and ascending for the *section of Footwear (XII)*, a group whose exports and production register increases every year. This sections' comparative advantage was given by the cheap and skilled labour force which attracted foreign investors in our country (preponderantly Italians) and who brought with them performing technological lines. The disadvantage consists in the fact that their investments are not on long-term, and in case of not necessarily major changes in the market conditions, they can easily relocate the production to other countries, determining thus losses for the Romanian comparative advantage for this group of products, as a result of the fact that the production technological lines do not belong to us (see as argument the tendency of section XVI, technology intensive – *Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles*). The section of metals (group XV) registers comparative advantages, too, highly due to the restructuring in the field, but as it can be noticed in the table, the values are on a descending trend, registering even a negative value at the level of 2006.

For the technology intensive group of products, *section XVI - Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles* - respectively, the fact that Romania registers a comparative disadvantage is not at all surprising. Section XVI is the technology intensive group of products, and if the comparative advantage indicator registered positive values, it would mean a more advantageous trade for this group compared to the total trade. This situation would be a desirable one for Romania, having in view the fact that the sections where we have comparative advantages are preponderantly intensive in labour force. Therefore, the evaluation of the *apparent comparative advantage* shows that Romania is slightly competitive in the traditional branches and non-performant in the industries based on high technology.

Next, we will make this analysis based on Romania's external trade with the EU, the results being presented in Table 2. It results that on the relation with the EU the comparative advantage is maintained for sections IX, XI, XII, XV and XX, but they are maintained partially, because in the last year there were negative values, too (for section XV, even in the last two years). For sections I and II from the Combined Nomenclature (*Live animals; animal products* and *Vegetable products*) positive values are registered (which can be explained based on the Asymmetric Concessions of the Association Agreement with the EU), but also negative values. The situation is different though towards the end of the period analysed, when the first group registers negative values, and the second group positive values, which can be explained by the cancellation of the barriers in the trade with agricultural products with the European Union, which had an unfavourable impact on the Romanian agricultural sector connected to cattle rearing, but, in exchange, a favourable one in the trade with cereals.

Therefore, we find interesting the fact that the accession of many of the main CEFTA member countries to the EU in 2004 led to a surplus of agricultural products compared to 2003 and 2004, the explanation residing only in the fact that the accession determined these countries to restructure their economy, their imports, respectively, which could lead to an increase of our country's exports to these countries, being affected also by the natural calamities that both these countries, as well as our country faced in the reference years. For *sections III and IV*, the negative values for the entire period in the case of the Romanian total foreign trade (excepting 1993-1999 and 2004-2005), but also in the case of the external trade with the EU demonstrate that we do not own comparative advantages at all for these sections. For the products of section V (*Mineral products*) the situation on the relation with the EU is strongly contrasting starting with 2001 compared to the global one, because in the commercial exchanges with the EU we registered systematically positive values in the last years, which reflects the restructuring by sector, but also the fact that the main investor in this sector is an European one. For the group of chemical products (Section VI), it clearly results that on the relation with the European Union, the values are unfavourable, a proof of the fact that the much awaited restructuring leaves much to be desired, its lack being reflected in the unitary cost of labour force in the chemical industry, which surpasses the average labour cost on the total of industry.

Section IX (Wood products, exclusively furniture) registers descending values of the comparative advantage starting with 1999, which means that on the EU oriented trade relation it was not advantageous to perform exchanges with wood products, in raw form, a thing confirmed as a matter of fact by the negative values registered in the last two years. We must mention here that the descending started together with the drastic enforcement of some trade barriers of non-tariff type (contingents etc.) for the export of such products, a thing we cannot appreciate as being negative and it could be transformed into an advantage if the descending tendency of this group were found in an increase of the group XX (furniture); but unfortunately it did not happen like this, and this group registered clearly descending tendencies towards 2006, even though they maintain themselves positive. Yet, the situation of this section on the relation with the European Union is good, the values being higher than those at the global level, which means that furniture represents one of the sectors bringing profit on the relation with the European Union countries.

For section XI, the comparative advantage registered again high values, which means that in this sector the trade with the EU was more favourable than the global trade, but the tendency is clearly descending towards 2006. It can be noticed that section XII (footwear) registered the best comparative advantage on the relation with the EU in the analysed period, with values in continuous increase since 1999 onwards. Therefore, the situation of this section, just like that of the previous one, is otherwise explainable by the reduced labour force cost in this sector (light industry), and, actually, to the export mainly in lohn – for section XII. It is worth noticing that the difference of results between a lohn type activity and one induced by direct foreign investments: while in the first case the tendency of the comparative advantage is more and more descending, in the second case is reversed, and the tendency is ascending.

The comparative advantage of Romania's external trade with the European Union, 1991-2006

Table 2

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	*0.57*	*0.32*	*0.24*	*0.44*	*0.24*	*0.44*	*0.88*	-0.41	*0.38*	-0.03	-0.46	-0.74	*0.14*	-0.73	-1.37	-1.60
II	-1.61	-3.15	-2.99	-0.03	*0.47*	-0.06	*0.25*	*0.10*	*0.73*	-0.14	*0.31*	*0.40*	-0.41	-0.41	*0.10*	*0.34*
III	-0.87	-2.57	0.13	-1.96	-0.62	-3.22	-2.90	-3.30	-1.00	-3.34	-2.31	-5.12	-2.17	-0.05	-0.37	-1.15
IV	-1.92	-2.70	-2.31	-1.56	-2.13	-1.87	-1.71	-2.38	-1.88	-1.60	-1.34	-1.49	-1.66	-2.04	-2.25	-2.61
V	*0.45*	*-0.41*	*0.72*	*0.79*	-0.31	-0.38	-0.92	-0.42	-0.64	-0.84	*0.07*	*1.52*	*1.10*	*0.78*	*0.31*	*0.20*
VI	-1.17	-1.70	-1.94	-0.89	-1.21	-1.49	-1.65	-2.28	-2.30	-1.82	-2.25	-2.37	-2.23	-2.19	-1.38	-1.80
VII	-0.74	-1.31	-1.51	-0.85	-0.69	-0.98	-1.02	-1.20	-1.17	-1.09	-1.43	-1.34	-1.31	-1.31	-2.25	-2.63
VIII	*0.74*	-1.81	-1.66	-1.13	-1.84	-2.18	-2.03	-2.15	-1.81	-1.59	-1.64	-1.52	-1.53	-1.45	-0.20	-0.18
IX	*0.88*	*1.61*	*1.19*	*1.15*	*0.83*	*1.21*	*1.38*	*1.99*	*2.02*	*1.90*	*1.78*	*1.56*	*1.73*	*1.02*	-0.52	-0.69
X	*0.43*	-2.11	-2.48	-1.55	-1.40	-2.19	-2.21	-2.77	-2.26	-1.78	-1.50	-1.70	-1.80	-2.21	-2.94	-3.61
XI	*4.73*	*2.50*	*2.85*	*2.10*	*2.36*	*2.55*	*2.61*	*2.55*	*2.24*	*2.31*	*2.45*	*2.45*	*2.68*	*2.79*	*0.44*	*0.47*
XII	*0.91*	*0.81*	*2.19*	*1.82*	*1.87*	*1.79*	*1.72*	*1.70*	*1.58*	*1.61*	*1.73*	*1.74*	*1.80*	*1.90*	*2.23*	*2.44*
XIII	*0.43*	*1.98*	*1.80*	*1.31*	*1.28*	*1.15*	*1.12*	*1.25*	*1.23*	*0.97*	*0.68*	*0.64*	*0.60*	*0.19*	-1.35	-1.93
XV	*1.96*	*2.01*	*1.99*	*2.02*	*2.50*	*2.21*	*3.00*	*2.85*	*2.47*	*2.48*	*2.01*	*1.58*	*1.42*	*1.33*	-0.38	-0.71
XVI	-1.06	-2.17	-2.19	-1.28	-1.42	-1.47	-1.14	-0.86	-0.37	*0.06*	-0.07	*0.04*	*0.05*	*0.19*	-0.69	-0.72
XVII	-1.31	-1.97	-2.01	-1.09	-1.30	-1.02	-1.30	-1.31	-0.66	-0.88	-1.04	-0.84	-0.72	-0.73	-1.03	-1.08
XVIII	-1.34	-3.15	-3.02	-2.50	-2.82	-2.83	-2.72	-2.47	-2.22	-2.02	-1.83	-1.72	-1.86	-1.85	-1.71	-1.85
XX	*5.82*	*6.02*	*4.71*	*2.70*	*2.57*	*2.44*	*2.32*	*2.34*	*2.18*	*2.01*	*2.23*	*2.14*	*2.11*	*1.96*	*1.06*	*0.96*
XXII	-1.61	*2.11*	*0.60*	-1.72	-2.37	-3.66	-4.28	-3.00	-1.32	*0.06*	*0.61*	*1.05*	*1.20*	*0.44*	-0.37	-4.91

Source: Personal computations based on statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

Section XIII (*Articles of stone, plaster, cement, asbestos, mica or similar materials; ceramic products; glass and glassware*) registers also comparative advantages, but these have gone on a descending slope since 1998 onwards, reaching negative values in 2005 and 2006. This trend is given by the explosive growth of the real estate constructions sector in our country, thus accelerating the imports. An important role is held in this situation the proliferation of real estate credits in the last years. For the technology intensive group of products (*Section XVI – Machinery and mechanical appliances; electrical equipment; parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles*) the negative trend is also maintained, except for the years 2000 and 2002-2004 when we registered positive values. But the situation is much better compared to the global foreign trade situation, a proof that where it is desirable to maintain a comparative advantage, especially with the EU, even though we have comparative disadvantages. The situation can be improved and it would have been improved if another instrument of banking policy had not interfered – the consumption credits which reached very high values in 2005 and even 2006, leading to an increase of the demand for products from this category which was covered by the Romanian imports from EU. The trade relation with the European Union generally reflects comparative advantages or comparative disadvantages similar to those registered on the global market, exceptions being registered for sections II, V, IX, XI and XXII respectively, as it is emphasised in Figure 1.

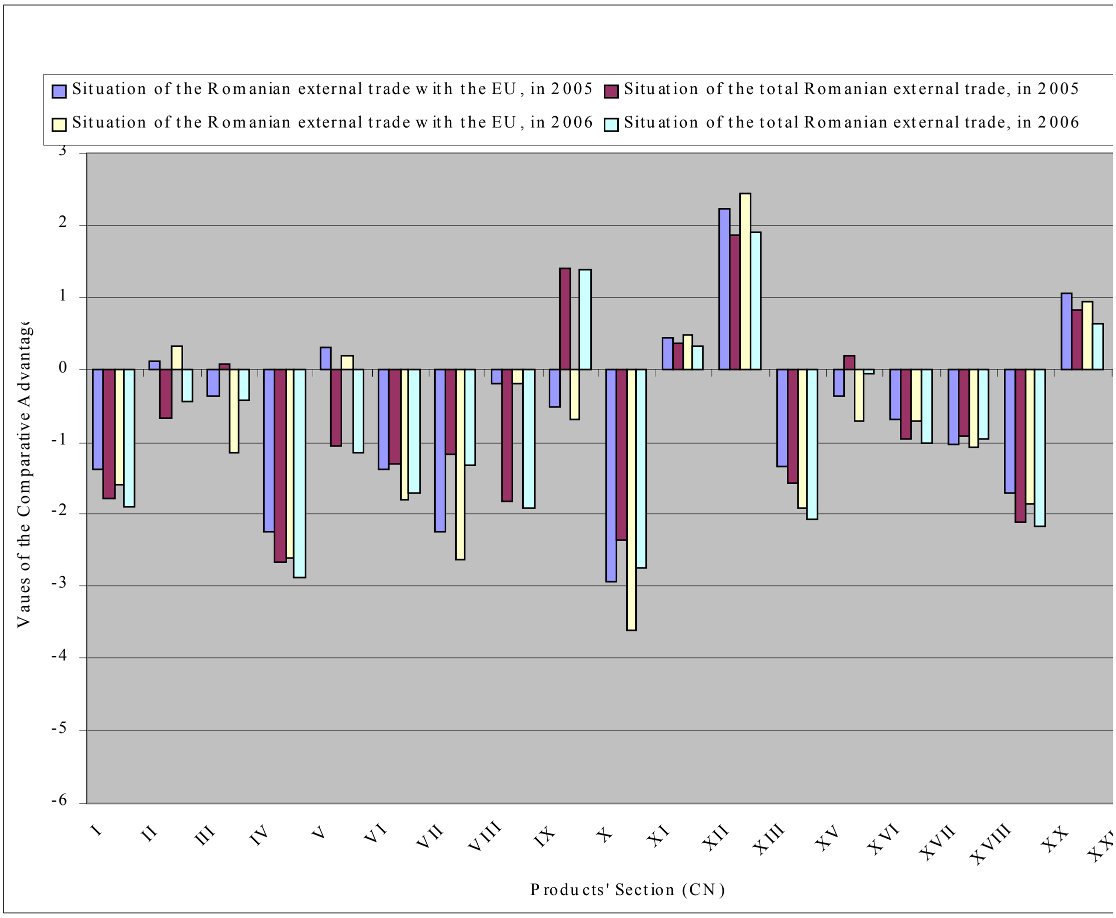

Figure 1. *The situation of Romania's external trade comparative advantages in 2005 and 2006*

Source: Data recorded in Table 2.

Of course, the discrepancies in the values obtained results from the shares of exports, of imports, to, respectively, from the EU, from each group of products, in the total of exports and imports and we explained them when analysing each group individually. What we consider very serious though is the fact that our comparative advantage on the relation with the EU was reduced continuously for all sections of products except for XII (Footwear), so that at the level of 2006 only for 5 sections we still had a comparative advantage in our commercial relations with the EU, more exactly – apart form the exception already mentioned – for sections II (Vegetal products), V (Mineral products), XI (Textile materials and articles) and XX (Furniture). Their values, apart from being descending, are already sub-unitary. These data come to support the idea that a rapid geographical reorientation of our foreign trade is necessary, so that, until we manage to completely reform our economy so that to be able to produce competitive products to be delivered on the developed markets, to find outlets for our current products. Therefore, the extremely high current share of our trade with the EU in our total external trade must be reduced as soon as possible, so that the markets like those of Africa and South America to become our main commercial partners at export, and we should import from the EU developed countries mainly the technology necessary to increase our domestic production's productivity.

Important to state here is the fact that if the group of products for which we identified the comparative advantage in the Romanian total external trade registers a high weight at export or import to and from the EU, but also in the total export and import, this thing is a first clue that the comparative advantage is maintained. We were interested in this context that during the period analysed to follow exactly which are the sections registering significant shares in the Romanian foreign trade with the EU, in the total of imports, of exports, respectively, thus computing these shares in the total of that particular section (the results of these computations are found in Annex 1). The data convince us again that almost at all sections (with some exceptions) Romania exports, imports respectively, in a quite high weight from and to the European Union. But the data in Annex 1 would not mean anything if it were not corroborated with the data in Table 2, referring to the comparative advantages. Therefore, we can notice that, mainly, for at least one of the components (export or import), for the sections where we found that, there were a comparative advantage, the share is above 50% in the total of Romanian exports or imports from that particular section of products. The relevance of this computation is important to the extent to which it is followed to what extent Romania's external trade comparative advantage with the European Union is exploited, respectively what weight the Romanian export or import with the EU occupies on sections, in the total of export and import.

In completing this analysis we must bring other computation referring to the shares held by each section for import and export, in the total Romanian import and export on the trade relation with the EU, so that we made these computations in the tables of the Annex 2. In those tables we marked again the sections registering ascending tendencies at export, at import respectively, regarding the shares in the total of exports, of imports respectively on the relation with the EU. The annex provides supplementary information regarding the structure of the Romanian foreign trade on the relation with the EU, because the computation of the comparative advantage does not require the presentation of the structure on the sections of merchandises. Thus, it can be observed that high shares in the Romanian exports to the EU are held by the following categories of products: Textile materials and confections (section XI); footwear (section XII), machines and equipments (XVI); common metals and articles (XV); means and materials of transport (XVII), furniture (XX). Regarding the import from the EU, we have high weights for the sections: chemical products (VI), textile materials (XI), common metals (XV) and machineries and equipments (XVI). A part of the sections of products registering high weights at export and/or import were identified as being sections with comparative advantages (IX, XI, XII, XV, XX).

We were interested to follow group XVI intensive in technology which registers ascending weights at export and import, with a higher weight at import. The fact that on the trade relation with the EU, the share of imports from the technology intensive section of products in the total of imports is high cannot be but a favourable sign, if these particular imports would serve the production for exports.

The values registered by the Michaely indicator applied onto the Romanian total foreign trade, 1991-2006

Table 3

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	2.60	2.90	2.30	2.20	0.90	1.30	1.80	-0.60	0.20	0.10	-0.70	-0.60	0.00	-0.40	-1.20	-0.90
II	-4.40	-5.70	-6.10	-0.90	1.10	3.20	0.50	0.20	0.80	-0.90	-0.60	-0.30	-1.70	-1.00	-0.10	0.30
III	-0.10	-0.50	0.90	0.30	0.70	0.70	1.20	0.40	0.30	-0.10	0.00	-0.30	-0.10	0.10	0.10	0.00
IV	-5.00	-5.90	-5.10	-4.40	-4.70	-4.00	-2.50	-3.30	-3.20	-3.00	-2.70	-2.20	-2.20	-2.20	-2.00	-2.00
V	-28.70	-19.30	-16.80	-15.20	-14.90	-15.00	-13.70	-8.20	-5.90	-6.60	-7.40	-4.20	-5.30	-6.20	-4.50	-3.50
VI	-0.40	3.10	-0.80	0.10	0.10	-0.10	-1.70	-4.60	-5.40	-3.30	-3.40	-4.90	-4.20	-3.90	-3.00	-3.60
VII	0.00	-0.90	-1.50	-0.90	-1.20	-1.50	-1.70	-2.20	-2.40	-2.30	-2.90	-2.90	-2.70	-2.10	-2.10	-2.00
VIII	0.30	-0.70	-1.00	-1.20	-1.40	-1.60	-1.70	-1.80	-2.10	-1.80	-2.00	-2.20	-1.90	-1.50	-1.30	-1.00
IX	2.00	3.00	3.10	3.30	2.70	3.20	3.60	4.10	5.20	4.80	3.90	3.70	3.70	3.50	2.80	2.60
X	-0.10	-1.10	-1.10	-1.40	-1.20	-1.70	-1.50	-2.10	-1.90	-1.50	-1.30	-1.40	-1.50	-1.30	-1.40	-1.40
XI	4.90	1.50	6.00	7.50	8.10	9.70	9.20	10.60	7.50	7.80	10.10	8.90	10.50	9.70	8.70	7.80
XII	1.20	1.00	2.50	4.10	4.40	5.20	5.10	5.70	6.20	5.90	7.00	6.80	6.70	5.30	4.70	4.30
XIII	0.5	1.10	1.10	0.80	0.80	0.60	0.50	0.50	0.40	0.20	0.00	-0.20	-0.30	-0.60	-0.90	-1.10
XV	10.10	12.50	15.30	12.40	12.80	9.40	12.50	12.50	8.90	9.10	6.00	5.50	5.20	7.10	6.00	5.10
XVI	1.70	-3.00	-8.60	-11.90	-12.30	-13.60	-14.30	-13.50	-12.10	-10.70	-7.90	-7.20	-7.90	-6.20	-5.70	-4.00
XVII	8.50	6.20	3.90	1.70	1.60	1.80	1.90	1.10	1.30	0.70	0.10	0.00	-0.50	-2.90	-2.30	-1.70
XVIII	-1.80	-0.90	-1.50	-2.00	-2.50	-1.80	-2.00	-1.80	-2.10	-2.30	-2.10	-2.00	-1.80	-1.30	-1.10	-1.00
XX	8.40	7.60	7.00	5.50	5.50	5.10	4.40	4.30	3.90	3.30	3.60	3.50	3.70	3.60	3.00	2.60
XXII	0.90	-0.90	0.70	0.30	-0.40	-0.80	-1.40	-1.10	0.10	0.20	0.20	0.30	0.40	0.20	0.30	0.20

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

To complete our study, we consider important, the computation of *the Michaely indicator* too, based on which we made the computations whose results are presented in Table 3. From this table it results that the sections for which we do not register deficits of the balance of trade are: IX, XI, XII, XV and XX, the results for this indicator being practically in accordance with what we computed for other indicators, because these sections were those we identified as being sections with positive signals, almost in all the cases. Permanent commercial deficits, negative values respectively in each year (excepting 1991 for some of them) for Michaely indicator can be seen for the following sections: section IV (foods, beverages, tobacco); section V (mineral products); section VII (plastic masses, rubber and articles made of these), section VIII (raw leather, taw skins, furs and products made of these), section X (paper); section XVI (machines and equipments), and section XVIII (optical instruments and equipments), respectively.

Also, for completing our analysis, we computed Michaely indicator for the trade relation with the EU to see if there is a group for which we have commercial deficit on the global trade relation and eventually commercial surplus on the relation with the EU. Of course, so far we have had all the signals that the sections presenting surpluses are approximately the same, but we consider that our analysis becomes even more valuable if, related to the empirical aspect, we manage to fully convince which are the sections registering surpluses both in the total of the Romanian foreign trade as well as in that with the EU and, moreover, we obtain another clue necessary for the future of our foreign trade as a EU member.

Therefore, Table 4 presents the results of Michaely indicator for the Romanian external trade with the EU wherefrom we can notice that unlike our global trade relations, in the trade relation with the EU, Romania registered a permanent surplus also for section XIII (*Articles of stone, plaster, cement, asbestos, mica or similar materials; ceramic products; glass and glassware*). Moreover, still unlike the global trade relation where our country registered permanent high deficits in the period analysed, our foreign trade with mineral products (section V) registers surplus in the trade relation with the EU in ten out of the sixteen years analysed, more exactly in the first four years of the interval, and more important, in the last six. The results of the sections V and XIII reveal the fact that the global external trade deficit registered by Romania in these cases is not due to the commercial exchanges with the European Union, in which we seem to export more than import for these categories of products, but to the commercial relations with other states, such as Russia for group V. Regarding the rest of the sections, the situation is relatively similar, which we expected taking into consideration the share of our foreign trade with the EU in the total of the Romania's external trade. We must signal hereby also the fact that it can be noticed a considerable diminution for group XV (metals) in the last years, a proof that the restructuring in the field has become absolutely necessary (an important role in the subsequent bringing was held by the privatization of Sidex Combine group of enterprises Galați) and that the surpluses registered for group XI are almost equal to those on the global relation, which indicates us that the lohn activity in the field of textiles is unfurled preponderantly with the EU states. This is not a positive thing at all if we think of a possible liberalization of trade with these products between the EU and Asia.

The values of the Michaely indicator for the Romanian external trade with the EU, 1991-2006

Table 4

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	1.80	1.80	0.70	0.60	0.40	0.60	0.80	-0.10	0.40	0.10	-0.30	-0.70	0.30	-0.50	-1.00	0.20
II	-7.50	-6.50	-7.60	0.00	0.50	0.20	0.40	0.30	1.00	0.00	0.40	0.40	-0.20	-0.10	0.40	0.40
III	-0.30	-0.70	0.30	-0.40	-0.10	-0.30	-0.40	-0.40	-0.20	-0.20	-0.20	-0.30	-0.20	0.00	0.00	0.00
IV	-6.70	-3.60	-3.20	-3.60	-3.60	-3.20	-2.00	-2.30	-2.10	-1.40	-1.20	-1.20	-1.30	-1.80	-1.70	0.10
V	8.50	2.70	6.20	3.70	-0.30	-0.50	-1.50	-0.20	-0.60	-0.80	0.50	4.20	1.70	2.00	1.30	0.60
VI	-7.20	-3.40	-5.80	-5.70	-5.60	-7.40	-6.60	-7.50	-8.70	-7.30	-7.40	-8.40	-7.50	-7.30	-4.60	0.80
VII	-1.10	-0.70	-1.60	-2.20	-1.30	-2.20	-2.00	-2.20	-2.90	-2.90	-3.70	-4.20	-4.40	-4.20	-5.70	0.30
VIII	0.30	-0.80	-1.40	-2.50	-2.70	-3.70	-3.30	-3.20	-3.60	-3.40	-3.90	-4.00	-3.60	-2.30	0.50	1.10
IX	1.50	2.50	1.50	1.30	1.10	1.40	1.60	2.20	3.40	2.80	2.40	2.20	2.50	2.10	-0.10	0.30
X	0.30	-0.50	-0.80	-1.40	-1.20	-2.00	-1.70	-1.90	-1.80	-1.60	-1.40	-1.70	-1.80	-2.00	-2.30	0.10
XI	12.00	15.80	28.00	28.80	27.20	32.50	32.70	32.40	31.80	30.50	31.60	31.00	31.20	24.00	11.20	7.00
XII	1.50	1.80	5.40	8.00	7.60	9.00	8.90	8.80	9.20	9.20	10.10	9.90	9.50	7.30	8.00	2.10
XIII	1.00	2.90	2.40	1.80	1.70	1.60	1.40	1.40	1.30	1.00	0.80	0.70	0.60	0.40	-1.20	0.20
XV	9.80	11.00	8.50	9.90	15.10	13.90	15.40	14.50	10.90	11.10	7.70	5.70	5.20	7.00	0.10	1.00
XVI	-9.20	-8.50	-13.20	-16.90	-13.20	-16.40	-9.00	-5.60	-3.00	2.50	1.40	2.20	3.10	6.30	-5.00	4.00
XVII	-5.20	-3.20	-4.30	-4.20	-4.30	-3.50	-3.40	-4.20	-2.70	-3.80	-4.90	-4.50	-3.70	-3.20	-4.80	1.20
XVIII	-0.70	-1.00	-1.50	-2.60	-2.30	-2.60	-2.30	-2.00	-2.10	-1.90	-1.60	-1.70	-1.80	-1.50	-1.10	0.20
XX	16.90	17.80	13.90	10.70	9.60	9.00	7.30	6.40	6.40	5.50	5.80	5.60	5.70	5.40	4.40	1.10
XXII	-2.30	0.50	0.10	-0.90	-1.00	-1.80	-2.40	-2.20	-0.50	0.10	0.20	0.20	0.20	0.10	-0.10	0.00

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

For section XVI, a positive factor is that the commercial deficit has been registering a descending tendency in the last years, except for 2005, which means that there is a potential in this direction which should be used. The more detailed study of this group is highly necessary because we have to know if really technology intensive products are exported from this group, due to the fact that our country would rather need import of technology for a sustainable and supporting economic growth. Therefore, section XVI is made up of two chapters: 84 - *Nuclear reactors, boilers,* *machinery and mechanical appliances; parts thereof* – and chapter 85 – *Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles*. The detailed presentation of the Michaely indicator's evolution in 1991-2006 of the products enclosed in the two chapters is presented in Table 5. The data in Table 5 indicate both the exports as well as the imports from the two chapters register an ascending trend but showing a deficit and from chapter 85 we export and import products in a high value and we even have registered a positive trade balance for 2006. The data reflect also the fact that we export and import more within products comprised in chapter 85, a thing which we can consider less favourable because the higher degree of detailed presentation on products points out that chapter 84 is more technology intensive because it contains more machineries and equipments, and chapter 85, comprising parts and accessories and radiotelegraph, radio or TV broadcasting devices, generally final usage goods. If these kind of manufactured products are the most imported, they cannot subsequently contribute to the exports. Furthermore, the degree of detailed presentation of this group is high, on a considerable number of products (see the Combined Nomenclature Classification for a better detailed presentation, on groups and subgroups of products comprised in these chapters). No matter it is about chapter 84 or chapter 85, there are deficits because in all the cases the imports exceed the exports.

The values of Michaely indicator applied for the Romanian total foreign trade with products from section XVI of the CN, chapters 84 and 85, 1991-2006

Table 5

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
XVI	-9.20	-8.50	-13.20	-16.90	-13.20	-16.40	-9.00	-5.60	-3.00	*2.50*	*1.40*	*2.20*	*3.10*	*6.30*	-5.00	*4.00*
84	*4.50*	*0.40*	-5.00	-7.70	-8.80	-9.80	-9.20	-7.60	-6.50	-5.30	-6.00	-6.50	-7.40	-5.90	-5.60	-3.60
85	-2.70	-3.40	-3.60	-4.30	-3.50	-3.80	-5.10	-5.90	-5.50	-5.30	-1.90	-0.70	-0.50	-0.40	-0.10	*0.90*

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

In the foreign trade statistic bulletins, for some products, the statistics are stated in items or tons, and therefore we consider that the details also have their own role, to catch the substance and to extract some valid conclusions, but from the empirical point of view, a detailed presentation on several figures of the classification of the sections presents the inconvenience of a difficult comparability due to the quantitative expression of data for some of the chapters.

For section XVI, we wanted to be to a certain extent more detailed, because we were interested in finding from where the trade balance deficit of this group comes from, for which quite high weights for export and import were fund together with sections IX and XI. But for these latter sections, we obtained comparative advantage (see Table 1), a thing which would have been desired for group XVI – intensive in technology – too. Because one of the objective of this paper is not only to see how the comparative and competitive advantages of the Romanian foreign trade has evolved in the context of European integration, but also to see what the problems characteristic to this evolution are and what should be done in order to improve our foreign trade exchanges while changing of our status into that of member state of the European Union, and, therefore, a developed country and a part of the biggest world trader, but yet with a high deficit of the trade balance, we therefore consider that in this context, section XVI – intensive in technology – presents a major importance, because the imports, the exports respectively from this section could contribute to an long-term economic growth of the country and to a equilibrium of the foreign trade balance regarding the new challenges of globalisation.

Next, based on statistic data provided by the International Trade Center – from where we took over some of the products of this group, considered significant in presenting the profile for imports and exports – regarding the first 40 products in the top of Romanian exports, according to the SITC HS 4 – digit classification, among which we also found products belonging to group XVI, we considered only the products from the top 40 at least for two years in the interval 2000-2005 and we presented them in Table 6 (if in the table there is no value, it means that the product is not anymore in the *top 40* of exported products in that particular year).

The detailed presentation of chapters reflects the fact that the products among the first 40 products exported by Romania from section XVI are: parts and accessories (8431), ball bearings (8482), wires, cables and other electric conductors (8544), electric devices for telephones (8517), broadcasting devices for radio-telephoning (8525), and in a smaller value engines and electric generators are exported (8501). Considerable values register group 8544 – Insulated (including enamelled or anodised) wire, cable (including coaxial cable) and other insulated electric conductors, whether or not fitted with connectors; optical fibre cables, made up of individually sheathed fibres, whether or not assembled with electric conductors or fitted with connectors, which otherwise remained in the top 40 of products during the entire period considered. The wire, cable and electric conductors export can be considered as products needing a certain processing but their added value is not high. Moreover, we must consider the fact that the automobile industry uses on a large scale the countries with cheap and skilled labour force to supply these products, and therefore Romania is – unfortunately – framed into this category.

Products exported from the section XVI, according to HS 4 - digit classification, found in the top of the first 40 Romanian exported products in 2000-2005, stated in thousands of US dollars

Table 6

Year / Code Chapters of Section XVI	2000	2001	2002	2003	2004	2005
8431	-	57	71.7	-	104.9	148.8
8482	94	112	111.2	130.5	157.8	206.9
8501	65	70	75.6	101.9	133.6	147.9
8517	95	197	179.3	138.1	129.9	83.5
8525	76	89	-	114.2	85.4	84.5
8544	168	277	497.8	748.2	1078.7	1425.9

Source: ITC, 2006, site: http://www.intracen.org/index.htm

For imports, the same detailed presentation of the technology intensive group presents in the period 2000-2005, the following situation:

Products imported from the section XVI, according to HS 4 - digit classification, found in the top of the first 40 Romanian imported products in 2000-2005, stated in thousands of US dollars

Table 7

Year / Code Chapters of Section XVI	2000	2001	2002	2003	2004	2005
8471	195	227	265	388	464.7	636.3
8473	66	81	90	132	174.8	259.9
8481	62	84	92	117	159.0	196.7
8504	82	77	99	123	145.1	192.6
8517	296	246	182	159	262.9	256.5
8525	106	165	196	258	418.8	623.8
8536	84	124	163	253	330.1	454.1
8542	336	172	309	351	338.9	261.9
8544	195	186	224	292	402.0	528.9

Source: ITC, 2006, site: http://www.intracen.org/index.htm

In the case of imports, we therefore found several products from section XVI being in the *top 40* of products imported by Romania, which actually means a higher diversification of the imports situated in the top, within this section. For imports, the structure on significant products is presented by the final usage goods, such as the products 8471 (machines processing data and their parts) or components of the final usages goods, such as the product 8473 (parts and accessories). Also, we import interception devices for radio and telephones, radio emission and television, generally final usage goods which, unfortunately, cannot contribute to the exports (product 8525) and subsequently to the economic growth. A positive signal could be though the growth of imports from product 8504 (electric transformers, electrostatic converters) or from the other products based on electricity because these could highly contribute to performance and intensive exports in technology. In spite of all these, the above presentation strengthens our opinion regarding the commercial exchanges of this group especially on the relation with the EU, being a proof more of the fact that together with the proliferation of the consumption credits, starting with 2004, the commercial exchanges with the products from this section have intensified due to the Romanians' increasing need for electrical appliances or mobile telephony.

The evolution of the Lafay indicator for the total Romanian foreign trade and with the EU, during 1991-2006

Table 8

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	1.25	1.38	1.11	1.08	0.44	0.61	0.87	-0.30	0.10	0.04	-0.32	-0.30	-0.01	-0.20	-0.56	-0.44
EU	0.88	0.82	0.32	0.31	0.21	0.29	0.38	-0.04	0.22	0.04	-0.17	-0.35	0.13	-0.23	-0.47	-0.33
II	-2.16	-2.76	-2.97	-0.46	0.56	1.54	0.22	0.12	0.42	-0.46	-0.28	-0.14	-0.84	-0.47	-0.05	0.12
EU	-3.74	-3.04	-3.66	0.01	0.26	0.08	0.19	0.15	0.51	-0.01	0.19	0.18	-0.12	-0.07	0.22	0.40
III	-0.04	-0.23	0.45	0.17	0.36	0.32	0.57	0.18	0.17	-0.04	0.00	-0.15	-0.04	0.07	0.05	0.02
EU	-0.16	-0.34	0.13	-0.21	-0.05	-0.15	-0.18	-0.20	-0.08	-0.12	-0.09	-0.17	-0.09	0.01	0.00	-0.02
IV	-2.42	-2.88	-2.51	-2.19	-2.33	-1.92	-1.23	-1.61	-1.58	-1.46	-1.34	-1.11	-1.09	-1.05	-0.98	-0.96
EU	-3.36	-1.69	-1.53	-1.80	-1.78	-1.59	-0.98	-1.15	-1.04	-0.71	-0.59	-0.59	-0.65	-0.88	-0.84	-0.74
V	-14.01	-9.32	-8.23	-7.54	-7.33	-7.26	-6.71	-3.99	-2.94	-3.24	-3.62	-2.08	-2.60	-3.03	-2.17	-1.65
EU	4.22	1.27	3.01	1.83	-0.12	-0.26	-0.74	-0.10	-0.28	-0.39	0.23	2.09	0.84	0.99	0.65	0.63
VI	-0.19	1.48	-0.39	0.03	0.05	-0.05	-0.85	-2.25	-2.66	-1.61	-1.67	-2.43	-2.07	-1.88	-1.45	-1.70
EU	-3.62	-1.60	-2.77	-2.85	-2.76	-3.65	-3.25	-3.70	-4.33	-3.65	-3.66	-4.21	-3.75	-3.60	-2.24	-1.98
VII	-0.02	-0.43	-0.71	-0.43	-0.61	-0.74	-0.86	-1.08	-1.17	-1.12	-1.39	-1.43	-1.30	-1.02	-1.00	-0.94
EU	-0.54	-0.33	-0.79	-1.12	-0.62	-1.08	-0.98	-1.07	-1.46	-1.42	-1.83	-2.10	-2.18	-2.06	-2.78	-2.49
VIII	0.13	-0.32	-0.50	-0.59	-0.68	-0.80	-0.82	-0.89	-1.04	-0.90	-0.99	-1.10	-0.95	-0.71	-0.61	-0.47
EU	0.16	-0.38	-0.68	-1.23	-1.33	-1.83	-1.63	-1.59	-1.79	-1.71	-1.96	-2.01	-1.77	-1.11	0.25	0.46
IX	0.96	1.46	1.54	1.62	1.33	1.56	1.74	2.00	2.57	2.37	1.93	1.81	1.80	1.70	1.34	1.25
EU	0.73	1.19	0.70	0.66	0.55	0.72	0.80	1.11	1.72	1.41	1.19	1.11	1.27	1.02	-0.05	-0.01
X	-0.07	-0.51	-0.53	-0.68	-0.59	-0.82	-0.73	-1.01	-0.96	-0.72	-0.63	-0.71	-0.73	-0.64	-0.67	-0.65
EU	0.16	-0.26	-0.37	-0.70	-0.61	-0.98	-0.82	-0.92	-0.92	-0.79	-0.72	-0.86	-0.92	-0.99	-1.14	-0.98
XI	2.40	0.71	2.91	3.71	3.98	4.70	4.50	5.15	3.70	3.85	4.91	4.39	5.13	4.72	4.21	3.71
EU	5.98	7.39	13.48	14.39	13.50	16.10	16.19	15.98	15.82	15.19	15.73	15.44	15.53	11.86	5.49	5.07
XII	0.58	0.49	1.24	2.06	2.15	2.50	2.48	2.74	3.08	2.91	3.41	3.34	3.25	2.58	2.26	2.06
EU	0.76	0.85	2.62	3.98	3.74	4.48	4.39	4.34	4.61	4.58	5.00	4.92	4.73	3.59	3.89	3.52
XIII	0.22	0.55	0.52	0.41	0.40	0.29	0.26	0.25	0.21	0.08	0.02	-0.09	-0.16	-0.30	-0.46	-0.50
EU	0.49	1.36	1.14	0.92	0.82	0.77	0.69	0.68	0.64	0.49	0.38	0.34	0.32	0.18	-0.56	-0.54
XV	4.91	6.06	7.50	6.19	6.31	4.57	6.14	6.04	4.40	4.49	2.92	2.69	2.56	3.44	2.88	2.43
EU	4.87	5.12	4.12	4.96	7.47	6.86	7.63	7.14	5.44	5.56	3.82	2.84	2.57	3.44	0.06	-0.09
XVI	0.84	-1.43	-4.19	-5.93	-6.03	-6.59	-7.00	-6.54	-5.95	-5.27	-3.86	-3.54	-3.87	-3.03	-2.76	-1.88

Sections of CN Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
EU	-4.58	-3.97	-6.36	-8.44	-6.53	-8.10	-4.47	-2.76	-1.47	1.22	0.70	1.12	1.53	3.10	-2.44	-0.37
XVII	4.16	2.98	1.93	0.85	0.76	0.89	0.95	0.51	0.66	0.32	0.06	-0.02	-0.22	-1.42	-1.10	-0.81
EU	-2.62	-1.48	-2.06	-2.10	-2.12	-1.74	-1.70	-2.07	-1.33	-1.91	-2.44	-2.25	-1.85	-1.59	-2.37	-1.42
XVIII	-0.89	-0.42	-0.76	-1.00	-1.24	-0.88	-0.99	-0.89	-1.02	-1.13	-1.01	-0.98	-0.86	-0.63	-0.55	-0.50
EU	-0.33	-0.45	-0.73	-1.31	-1.13	-1.29	-1.13	-0.98	-1.03	-0.96	-0.81	-0.83	-0.87	-0.76	-0.54	-0.41
XX	*4.10*	*3.66*	*3.45*	*2.75*	*2.70*	*2.46*	*2.14*	*2.10*	*1.95*	*1.61*	*1.76*	*1.72*	*1.81*	*1.77*	*1.47*	*1.24*
EU	*8.42*	*8.32*	*6.72*	*5.34*	*4.74*	*4.46*	*3.59*	*3.18*	*3.20*	*2.76*	*2.87*	*2.81*	*2.81*	*2.68*	*2.15*	*1.88*
XXII	*0.46*	-0.41	*0.32*	*0.14*	-0.20	-0.39	-0.67	-0.54	*0.06*	*0.11*	*0.11*	*0.15*	*0.19*	*0.11*	*0.15*	*0.09*
EU	-1.17	*0.23*	*0.05*	-0.47	-0.51	-0.90	-1.19	-1.06	-0.23	*0.04*	*0.10*	*0.09*	*0.10*	*0.05*	-0.06	-0.04

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

From the structure of exports we saw though that the exports consisted in relatively low added value products, a reason for which we do not have the certainty regarding the destination of the imports presented previously. From the analysis of the more detailed structure we can draw the conclusion that from the technology intensive section of products we export mainly products requiring the use of the labour force, as well as parts and assemblies for automobiles. The imports of the technology intensive products are, on one side, final usage goods which do not have any impact for our production and exports, and on the other side, machines and equipment used in sectors which are less intensive in technology, such as the textile, metals, plastic masses or wood sector. This thing explains the lack of the comparative advantage of the Romanian external trade for this section of products, the expensive enough imports of machines and equipment being the cause for registering a high commercial deficit at this section. The explanations provided regarding this group did not but emphasise the fact that the comparative advantage obtained for the sections of textiles and wood can be due to the imports of equipment or machines, used in these sectors. We will return with commentaries on the wood and textile industry and the possible evolution in the future, after we present *Lafay indicator*, in Romania's case – an indicator met quite often in the specialty literature, in emphasising the specialisation of a country's trade – both for seeing if there is similarity between the results obtained in this case and the results obtained in the case of Michaely indicator, as well as to study as thoroughly as possible our analysis regarding the leading sectors in the Romania's foreign trade in the context of European integration. Also, the *intra-industrial trade indicator* is important, to the extent to which it estimates the degree of fragmentation of the production oriented towards export.

Based on the results thus obtained by computing Lafay indicator for the Romanian foreign trade and presented in Table 8, it results again that Romania's specialisation is incontestably given by the sections IX, XI, XII, XV, XX, that as a matter of fact we marked with bold figures in the table, together with the positive values registered in other sections, too, in different years. The results though have a smaller value than in the case of Michaely indicator, due to the way of computation. Yet, in comparing the countries, this indicator is preferable due to the fact that normalization, as a computation method, is much more objective due to the comparable values obtained.

Also, from the table we can notice that, for the sections of products that our country is specialised in preponderantly in the international commercial exchanges, the values of Lafay indicator for section IX (Wood) are lower – reaching even negative values in the last two years – in the eternal trade relations with the EU than those registered in the total Romanian external trade, while for the other sections – XI, XII, XX – the situation is reverse. The exception is section XV (Metals), where in the interval 1991-1994, the values on the trade relation with the EU are lower than those registered in the total Romanian external trade, after which, in the interval 1995-2004, they become higher, and since 2005 they have become much below the level of those on the global trade relation, becoming even negative in 2006.

Another important indicator for the emphasis of the diversification of a country's external trade exchanges is *Grubel-Lloyd inter-branch trade indicator*, defined as a trade with products belonging to the same industrial branch, its main rationale consisting in the enlargement of the range of types of products provided on the internal market. We have computed therefore *the Grubel-Lloyd indicator of the Romanian foreign trade in 1991-2006*, both for the total external trade as well as for the trade with the EU, again due to comparability reasons (see Table 9).

The evolution of Grubel-Lloyd indicators values for the Romanian total foreign trade and with the EU, during 1991-2006

Table 9

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	*0.45*	*0.63*	*0.59*	*0.62*	*0.87*	*0.65*	*0.50*	1.38	1.03	1.08	1.37	1.34	1.16	1.32	1.54	1.54
EU	*0.74*	*0.91*	*0.92*	*0.79*	*0.90*	*0.82*	*0.66*	1.16	*0.83*	1.01	1.20	1.32	*0.94*	1.29	1.47	1.48
II	1.68	1.79	1.78	1.37	*0.85*	*0.62*	1.01	1.12	*0.94*	1.39	1.30	1.23	1.55	1.45	1.23	1.14
EU	1.64	1.73	1.77	1.01	*0.81*	1.02	*0.90*	*0.96*	*0.68*	1.06	*0.87*	*0.82*	1.18	1.16	*0.96*	*0.89*
III	1.38	1.71	*0.51*	*0.78*	*0.52*	*0.48*	*0.43*	*0.89*	*0.74*	1.27	1.15	1.75	1.34	*0.90*	*0.97*	1.13
EU	1.38	1.64	0.96	1.73	1.25	1.87	1.83	1.86	1.42	1.90	1.76	1.98	1.73	1.02	1.14	1.36

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
IV	1.81	1.80	1.79	1.71	1.78	1.70	1.60	1.70	1.73	1.74	1.70	1.67	1.70	1.73	1.72	1.72
EU	1.71	1.66	1.66	1.63	1.71	1.64	1.60	1.73	1.68	1.61	1.52	1.58	1.62	1.68	1.68	1.69
V	1.62	1.56	1.53	1.45	1.55	1.59	1.58	1.54	1.43	1.39	1.48	1.32	1.41	1.44	1.35	1.35
EU	0.79	1.12	0.76	0.64	1.13	1.15	1.36	1.17	1.28	1.36	0.97	0.41	0.56	0.69	0.89	0.94
VI	1.18	0.99	1.20	1.07	1.13	1.18	1.26	1.51	1.50	1.35	1.42	1.51	1.49	1.46	1.42	1.50
EU	1.50	1.47	1.58	1.40	1.46	1.54	1.59	1.72	1.77	1.67	1.75	1.79	1.75	1.71	1.47	1.52
VII	1.17	1.35	1.43	1.23	1.32	1.40	1.41	1.49	1.45	1.44	1.53	1.46	1.42	1.37	1.38	1.40
EU	1.33	1.37	1.47	1.38	1.28	1.38	1.39	1.44	1.48	1.45	1.55	1.54	1.51	1.48	1.68	1.69
VIII	0.83	1.51	1.53	1.46	1.60	1.67	1.61	1.66	1.65	1.57	1.56	1.56	1.56	1.54	1.56	1.54
EU	0.67	1.49	1.51	1.49	1.64	1.71	1.68	1.69	1.67	1.61	1.61	1.59	1.58	1.53	1.07	1.06
IX	0.47	0.35	0.29	0.22	0.36	0.30	0.27	0.27	0.24	0.26	0.34	0.38	0.40	0.45	0.55	0.59
EU	0.61	0.56	0.62	0.50	0.67	0.54	0.49	0.35	0.28	0.31	0.35	0.40	0.37	0.61	1.19	1.22
X	1.28	1.69	1.67	1.61	1.47	1.65	1.60	1.74	1.69	1.57	1.53	1.54	1.58	1.57	1.67	1.70
EU	0.80	1.56	1.69	1.63	1.52	1.71	1.71	1.80	1.76	1.66	1.57	1.64	1.65	1.71	1.80	1.82
XI	0.76	1.10	0.91	0.82	0.87	0.87	0.89	0.91	0.94	0.92	0.91	0.91	0.89	0.88	0.88	0.90
EU	0.02	0.37	0.25	0.24	0.25	0.22	0.21	0.24	0.24	0.22	0.21	0.20	0.18	0.19	0.84	0.85
XII	0.69	0.73	0.46	0.35	0.40	0.39	0.45	0.49	0.44	0.44	0.41	0.40	0.40	0.42	0.44	0.46
EU	0.60	0.76	0.37	0.30	0.35	0.38	0.40	0.41	0.39	0.38	0.37	0.35	0.35	0.35	0.32	0.34
XIII	0.99	0.77	0.78	0.77	0.86	0.98	0.97	1.02	0.98	1.06	1.14	1.18	1.25	1.37	1.49	1.58
EU	0.80	0.47	0.45	0.44	0.51	0.56	0.57	0.54	0.50	0.59	0.71	0.72	0.75	0.92	1.46	1.55
XV	0.55	0.54	0.45	0.50	0.55	0.72	0.60	0.66	0.69	0.70	0.86	0.85	0.89	0.86	0.93	1.02
EU	0.27	0.47	0.41	0.25	0.22	0.28	0.16	0.19	0.20	0.20	0.30	0.39	0.45	0.51	1.14	1.22
XVI	1.10	1.29	1.45	1.47	1.53	1.58	1.56	1.55	1.44	1.38	1.35	1.31	1.34	1.31	1.32	1.31
EU	1.46	1.57	1.63	1.54	1.53	1.54	1.43	1.33	1.17	0.97	1.03	0.98	0.98	0.92	1.25	1.23
XVII	0.45	0.77	0.82	0.92	0.96	0.97	0.92	1.06	0.96	1.04	1.14	1.13	1.19	1.34	1.31	1.30
EU	1.54	1.53	1.59	1.48	1.49	1.40	1.48	1.47	1.28	1.37	1.42	1.36	1.30	1.29	1.37	1.33
XVIII	1.75	1.72	1.82	1.83	1.86	1.83	1.83	1.76	1.77	1.79	1.74	1.74	1.73	1.65	1.62	1.60
EU	1.56	1.73	1.77	1.83	1.82	1.82	1.80	1.75	1.76	1.72	1.66	1.65	1.67	1.63	1.56	1.54
XX	0.15	0.25	0.32	0.41	0.48	0.53	0.57	0.61	0.59	0.63	0.62	0.62	0.63	0.63	0.72	0.80
EU	0.01	0.05	0.08	0.14	0.21	0.24	0.26	0.27	0.25	0.28	0.25	0.26	0.28	0.34	0.62	0.70
XXII	0.75	1.34	0.85	0.97	1.32	1.51	1.61	1.53	1.04	0.90	0.83	0.57	0.57	0.75	0.85	0.94
EU	1.64	0.44	0.80	1.68	1.75	1.90	1.94	1.83	1.53	0.97	0.74	0.56	0.52	0.82	1.91	1.92

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

In this context, we share also L. Voinea's (2002) opinion, who considers that the most performing sections of products are those with an increasing tendency both at the comparative advantage as well as Grubel-Lloyd indicator, because, if a group registers comparative advantage, it is good that when there is crossing trade within the same group (and usually there is), then the exports should cover to a higher extent the imports, that is Grubel-Lloyd indicator should have as high as possible values. We amerced therefore in the table the sections where we registered comparative advantages when we computed the indicator of revealed comparative advantage (see the computations in the tables afferent to this indicator) and for which we will follow now what values we obtained for the indicator of intra-branch trade. To be noticed is that for the sections of textiles (XI) and footwear (XII) on the global relation, the intra-industrial trade is more accentuated (accentuated intra-industrial trade means a better covering of the imports through exports within the same group) than on the relation with the EU. The same thing happens for section XX. Also, we can say that both on the global relation as well as on the relation with the European Union, the intra-industrial trade exists since the values of the indicator are different from zero, some even significantly different from zero. It can be noticed also that for all the sections the values exceed 0.5, at least in one of the two situations (the total external trade and the trade with the EU), which means that it has been followed a covering of the section's imports of products with the exports of the same section's products.

The Association Agreement signed by Romania with the EU had quite an important role on the values of Grubel-Lloyd coefficient because the gradual liberalization of the imports was positively reflected on the internal producers, and, implicitly, on their capacity to exports, in almost all the cases the gradual liberalization of imports determining a bigger covering of these by the exports, starting with 2004.

Generally, from the Table 9 also we can notice that the sections registering a comparative advantage have not been affected, that is: sections IX, XI, XV, and XX regarding the indicator of intra-branch trade within the commercial flows with the European Union. For these sections, the oscillations in value are quite small and sub-unitary, they registering increases only for the years 2005-2006, reaching even supra-unitary values, which is a positive situation.

It is worth noticing though the fact that where competitive advantage was registered, Grubel-Lloyd indicator shows that the exports did not cover the imports only with a single exception, that is, for section XVI, on the global relation. In the same time, where we did not register comparative advantage, the imports were though covered through exports, which is a positive thing (see for exemplification section XVI, too, on the relation with the EU). This conclusion can be considered of a major interest regarding the long-term perspectives of the Romania's foreign trade, because the fact that we did not register and we do not register comparative advantages for some sections could mean that we do not have any chance to straighten out the situation from this point of view. If we analysed though Grubel-Lloyd indicator, too, and we made the connection with the values obtained for the comparative advantage, we reached a much more optimistic conclusion, that is there are sections without comparative advantage or which register even negative values for it (and sometimes diminution), but in spite of all these, they register relatively increasing values of the intra-branch indicator, covering thus the imports through the exports.

The emphasis of these conclusions is important, having in view the fact that these sections of products are technology intensive, and the export of such products could represent a solution for straightening out. It is true, the straightening out can be done in the context in which we are less dependent on imports to export products intensive in technology. A more optimistic factor would be that the assembly in the country of the technology intensive products based on foreign parts and components started, even though to a small extent, to be replaced by the assembly in the country but based on parts and components made in the country, a thing resulted from the detailed presentation of section XVI, from where it resulted that we export some parts and components, a reason for which we should orientate more and more to a development of production stages in the country, in order to obtain a high added value. The most conclusive example is represented by the industry of Romanian automobiles where after the taking over of Dacia Pitești by Renault, in 1999, more than 10 well-known foreign suppliers (investors) of ensemble parts and component parts entered the country, a thing which contributed to the vertical integration of the industry. A new success in this view can be soon registered through the just sold control stock of shares of the Craiova automobile factory to the American investor Ford is which for sure will determine also an improvement of the foreign trade indicators, at least for the products of section XVI.

L. Voinea (2002) still considers that the sections of performing products are those which register an increasing comparative advantage (or a decreasing comparative disadvantage), concomitantly with an increasing indicator of intra-branch trade, a thing which is confirmed by the data marked in our table. This analysis can be also made by adding a reference year for comparison. As a consequence, we are more interested in the evolution of our trade on the relation with the European Union, due to the quality of this integrationist grouping as main partner in our foreign trade. We will choose therefore as a reference year the year when the Association Agreement of Romania to the European Union was signed. In this context, by analysing the data in Table 10, we have drawn the conclusions in Table 11 referring to the sections of products and the relation *comparative advantage – Grubel-Lloyd indicator.*

The evolution of the comparative advantage indicator (RCA) and of Gruebel-Lloyd indicator (GL) of the Romanian foreign trade on the relation with the EU, 1991-2006

Table 10

Sections of CN / Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
RCAI	*0.57*	*0.32*	*0.24*	*0.44*	*0.24*	*0.44*	*0.88*	-0.41	*0.38*	-0.03	-0.46	-0.74	*0.14*	-0.73	-1.37	-1.60
GLI	*0.74*	*0.91*	*0.92*	*0.79*	*0.90*	*0.82*	*0.66*	1.16	*0.83*	1.01	1.20	1.32	*0.94*	1.29	1.47	1.48
RCAII	-1.61	-3.15	-2.99	-0.03	*0.47*	-0.06	*0.25*	*0.10*	*0.73*	-0.14	*0.31*	*0.40*	-0.41	-0.41	*0.10*	*0.34*
GLII	1.64	1.73	1.77	1.01	*0.81*	1.02	*0.90*	*0.96*	*0.68*	1.06	*0.87*	*0.82*	1.18	1.16	*0.96*	*0.89*
RCAIII	-0.87	-2.57	0.13	-1.96	-0.62	-3.22	-2.90	-3.30	-1.00	-3.34	-2.31	-5.12	-2.17	-0.05	-0.37	-1.15
GLIII	1.38	1.64	0.96	1.73	1.25	1.87	1.83	1.86	1.42	1.90	1.76	1.98	1.73	1.02	1.14	1.36
RCAIV	-1.92	-2.70	-2.31	-1.56	-2.13	-1.87	-1.71	-2.38	-1.88	-1.60	-1.34	-1.49	-1.66	-2.04	-2.25	-2.61
GLIV	1.71	1.66	1.66	1.63	1.71	1.64	1.60	1.73	1.68	1.61	1.52	1.58	1.62	1.68	1.68	1.69
RCAV	*0.45*	*-0.41*	*0.72*	*0.79*	-0.31	-0.38	-0.92	-0.42	-0.64	-0.84	*0.07*	*1.52*	*1.10*	*0.78*	*0.31*	*0.20*
GLV	*0.79*	*1.12*	*0.76*	*0.64*	1.13	1.15	1.36	1.17	1.28	1.36	*0.97*	*0.41*	*0.56*	*0.69*	*0.89*	*0.94*
RCAVI	-1.17	-1.70	-1.94	-0.89	-1.21	-1.49	-1.65	-2.28	-2.30	-1.82	-2.25	-2.37	-2.23	-2.19	-1.38	-1.80
GLVI	1.50	1.47	1.58	1.40	1.46	1.54	1.59	1.72	1.77	1.67	1.75	1.79	1.75	1.71	1.47	1.52
RCAVII	-0.74	-1.31	-1.51	-0.85	-0.69	-0.98	-1.02	-1.20	-1.17	-1.09	-1.43	-1.34	-1.31	-1.31	-2.25	-2.63
GLVII	1.33	1.37	1.47	1.38	1.28	1.38	1.39	1.44	1.48	1.45	1.55	1.54	1.51	1.48	1.68	1.69
RCAVIII	0.74	-1.81	-1.66	-1.13	-1.84	-2.18	-2.03	-2.15	-1.81	-1.59	-1.64	-1.52	-1.53	-1.45	-0.20	-0.18
GLVIII	0.67	1.49	1.51	1.49	1.64	1.71	1.68	1.69	1.67	1.61	1.61	1.59	1.58	1.53	1.07	1.06
RCAIX	0.88	1.61	1.19	1.15	0.83	1.21	1.38	1.99	2.02	1.90	1.78	1.56	1.73	1.02	-0.52	-0.69
GLIX	0.61	0.56	0.62	0.50	0.67	0.54	0.49	0.35	0.28	0.31	0.35	0.40	0.37	0.61	1.19	1.22
RCAX	0.43	-2.11	-2.48	-1.55	-1.40	-2.19	-2.21	-2.77	-2.26	-1.78	-1.50	-1.70	-1.80	-2.21	-2.94	-3.61
GLX	0.80	1.56	1.69	1.63	1.52	1.71	1.71	1.80	1.76	1.66	1.57	1.64	1.65	1.71	1.80	1.82
RCAXI	4.73	2.50	2.85	2.10	2.36	2.55	2.61	2.55	2.24	2.31	2.45	2.45	2.68	2.79	0.44	0.47
GLXI	0.02	0.37	0.25	0.24	0.25	0.22	0.21	0.24	0.24	0.22	0.21	0.20	0.18	0.19	0.84	0.85
RCAXII	0.91	0.81	2.19	1.82	1.87	1.79	1.72	1.70	1.58	1.61	1.73	1.74	1.80	1.90	2.23	2.44
GLXII	0.60	0.76	0.37	0.30	0.35	0.38	0.40	0.41	0.39	0.38	0.37	0.35	0.35	0.35	0.32	0.34
RCAXIII	0.43	1.98	1.80	1.31	1.28	1.15	1.12	1.25	1.23	0.97	0.68	0.64	0.60	0.19	-1.35	-1.93
GLXIII	0.80	0.47	0.45	0.44	0.51	0.56	0.57	0.54	0.50	0.59	0.71	0.72	0.75	0.92	1.46	1.55
RCAXV	1.96	2.01	1.99	2.02	2.50	2.21	3.00	2.85	2.47	2.48	2.01	1.58	1.42	1.33	-0.38	-0.71
GLXV	0.27	0.47	0.41	0.25	0.22	0.28	0.16	0.19	0.20	0.20	0.30	0.39	0.45	0.51	1.14	1.22
RCAXVI	-1.06	-2.17	-2.19	-1.28	-1.42	-1.47	-1.14	-0.86	-0.37	0.06	-0.07	0.04	0.05	0.19	-0.69	-0.72
GLXVI	1.46	1.57	1.63	1.54	1.53	1.54	1.43	1.33	1.17	0.97	1.03	0.98	0.98	0.92	1.25	1.23
RCAXVII	-1.31	-1.97	-2.01	-1.09	-1.30	-1.02	-1.30	-1.31	-0.66	-0.88	-1.04	-0.84	-0.72	-0.73	-1.03	-1.08
GLXVII	1.54	1.53	1.59	1.48	1.49	1.40	1.48	1.47	1.28	1.37	1.42	1.36	1.30	1.29	1.37	1.33
RCAXVIII	-1.34	-3.15	-3.02	-2.50	-2.82	-2.83	-2.72	-2.47	-2.22	-2.02	-1.83	-1.72	-1.86	-1.85	-1.71	-1.85
GLXVIII	1.56	1.73	1.77	1.83	1.82	1.82	1.80	1.75	1.76	1.72	1.66	1.65	1.67	1.63	1.56	1.54
RCAXX	5.82	6.02	4.71	2.70	2.57	2.44	2.32	2.34	2.18	2.01	2.23	2.14	2.11	1.96	1.06	0.96
GLXX	0.01	0.05	0.08	0.14	0.21	0.24	0.26	0.27	0.25	0.28	0.25	0.26	0.28	0.34	0.62	0.70
RCAXXII	-1.61	2.11	0.60	-1.72	-2.37	-3.66	-4.28	-3.00	-1.32	0.06	0.61	1.05	1.20	0.44	-0.37	-4.91
GLXXII	1.64	0.44	0.80	1.68	1.75	1.90	1.94	1.83	1.53	0.97	0.74	0.56	0.52	0.82	1.91	1.92

Source: Personal computations based on official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

From Table 11 it results that, from the point of view of both indicators, no section presents increasing values as no section presents strictly descending values.

Framing the CN sections of the Romanian foreign trade with the EU according to Grubel-Lloyd and RCA indicators, in 2006 compared to 1993

Table 11

	Grubel-Lloyd (GL) ascending	Grubel-Lloyd (GL) descending
RCA ascending		Gr. II, Gr. VI, Gr. VIII, Gr. XII Gr. XVI, Gr. XVII, Gr. XVIII
RCA descending	Gr. I, Gr. III, Gr. IV, Gr. V Gr. VII, Gr. IX, Gr. X, Gr. XI Gr. XIII, Gr. XV, Gr. XX, Gr. XXII	

Source: Personal classification based on values in Table 10.

Regarding the sections classified previously (according to Krause merchandise classification) as being sections with high technological complexity – machines and equipment (XVI), means of transport (XVII) and optical instruments (XVIII), and including group XX, according to a classification used by the former Ministry of Development and Forecasting in Romania (Vass, 2004, p.148), we notice that these sections register descending comparative disadvantages (only group XX registers ascending comparative advantage), which can be equalised with a potential of registering a comparative advantage. According to Voinea L. (2002), and Vass A. (2004), there is possible also another merchandise classification, which groups the products as follows: high technological complexity – sections XVI, XVII, XVIII, XX; average technological complexity – sections IV, VI, VII, X, XI, XII, XX; low technological complexity - sections: I, II., III, V, VIII, IX, XV, XIII. The situation is similar for sections II (vegetable products), VI and VIII. The fact that the evolution to comparative disadvantages are descending, together with the descending values of the indicator of intra-branch trade means though that there is potential for these sections, a potential which will have to be fully used, if we refer to the sections with a high technological complexity, which could be achieved by increasing the internal productivity and production which should determine a growth of the exports in order to cover the imports. Even though the trade with products from the sections of alimentary products (IV), mineral products (V), plastic masses (group VII), raw and taw skins (VIII), textiles (XI) and the rest of the sections present negative or descending values of the comparative advantage from the point of view of the intra-branch trade the indicator is ascending, situation which reflects a good covering degree of the imports by the exports of these sections of products.

In the category of low performing products at export there are therefore sections belonging to the category of sections of products with average or low technological complexity, according to the classifications we referred to previously.

From this point of view it is inadmissible to us the framing of sections I and III (*Live animals* and *Fats, and animal oils*) within the sections with weak performances at export due to Romania's potential for these products. The reduction – up to elimination – of the subventions in agriculture and the fierce competition the Romanian agriculturists must cope with represents another reliable explanation for the unfavourable values of Grubel-Lloyd indicator for these two sections.

The previous framing made possible a clearer distinction of the sections analysed, but this thing was possible based on the comparison of only the two years – 2006 compared to 1993. The distinction is important to the extent to which we have in view a comparison of the situation of the Romanian trade on sections of products related to that from the European Union, in the context of deepening our country's European integration process. Therefore, the sections registering comparative advantages, even though descending, are not framed in the category of the most performing sections if we computed Grubel-Lloyd indicator, too. In the table above we marked these sections. The more reduced value or the descending value of Grubel-Lloyd indicator is signalling the fact that for these sections, even though comparative advantages are registered, the intra-industrial trade registers descending values. At some of these sections we signalled that Romania is dependent on the export by the imports made from the same section. Due to this reason, the descending values of the Grubel-Lloyd indicator can represent the beginning of the loss of relevance of the comparative advantage found again at these sections.

3. Concluding remarks

For now on, as a member state of the EU, Romania and the Romanian commercial operators should maximize the opportunities given by the rich portfolio of trade agreements for the free trading given by the European Union and try to reorient our exports towards countries like Africa, Middle East and South America, where the products of which the structure of our Romanian exports are consisted of hold a compared and competitive advantage, whilst the imports should be focused mainly on performing technologies, which should determine the intense technological domestic production, to ensure our competitiveness for export on an middle – and long-term. In this regard, immediate measures are being brought up to promote the Romanian products which still register comparative or competitive advantages on the markets of the countries like: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates; Brazil, Argentina, Bolivia, Columbia, Ecuador, Peru, Venezuela, Paraguay and Uruguay; the ACP countries, South Africa, but even Botswana, Lesotho and Namibia.

For this reorientation we take into account the fact that there are high levels in the Romanian exports towards the EU which hold the following product categories: textile fabrics and confections (group XI); foot wear (group XII), machines and equipments (XVI); common metals and articles out of these (XV); means and materials of transport (XVII), furniture (XX). From this perspective, we believe that our country has managed to export these products on a market like the one in the EU, the reorientation of these exports on a market with higher potentials should absorb our products, thus identified and mentioned above, will not be able to determine a decrease in the commercial deficit of Romania and a making of a more efficient external Romanian trade.

An even more favourable factor is represented by the reality that the assembly of the intense technological products in our country, based on foreign spare parts and components has already begun – even if on a lower level – to be replaced with assembly in the country, but based on native spare parts and components, a fact resulted from the details of the section XVI, where it resulted that we export some spare parts and components, reason for which we should re-orientate more and more on a development of the native production stages, to obtain an even higher added value.

From a macro-economical point of view the evolution of the Romanian external trade has lead to speeding up of economical development and performance. The lasting development of the exporting sectors may contribute to a continuous socio-economical increase, but the performance of the key sectors is based on factors of comparative advantages, especially on the low costs of the work force and raw materials, and these kinds of advantages could easily be lost. In reality a higher part of the Romania's exports toward the EU are being generated by the industries that intensively use the work force and natural resources. These are usually products with a lower tax and technological content and which depend on the low cost of the work force and imported raw materials (for instance textiles, footwear parts and accessories). In the same time, more than half of the commercial deficit with the EU is being generated by the industries with intense technology content.

Reality confirms that the Romanian economy has a relatively lower level of competition in the European context and that Romania has attracted lower investments per capita, compared to other countries in the region, because of the absence of a transparent judicial frame and because of the rough regional competition. The competitive difference toward the other EU member states cannot be ignored, given the importance of the European market for Romania (e.g. the share of the Romanian foreign trade with EU was about 71.5% out of total in 2007, according to the official statistic published by INSSE in March 2008). It is very possible that this difference will increase in the perspective of an even higher liberalization and integration into the global trading, thus leaving the Romanian exporters in a critical situation. Though the continuous opening toward the external trading and significant performances of the Romanian exports, these are not enough diversified. This is partly given by the fact that few companies have innovative activities or the low research in the development of their products and services. A shorter approach on the main exports of Romania quickly shows that most of these sectors are traditional. There has been little innovation, and as a result, there are few industries that use, intensively, a new and advanced technology.

Therefore the strategic priority of Romania should now be the competitive advantages, the development of the capabilities and exporting sector competencies, attracting the local and foreign investors and creating a new economy which will allow the development of a free trade, on a market which is more and more globalised. FDI represents a capital source, of know-how, technology and management capacities and stimulates the economical increase. Romania should become a better pretendent to absorb the foreign direct investments, especially those export oriented, given the fact that, as already presented along this paper, the products which, in the period before the EU integration, have registered compared and competitive advantages, mainly belong to the sectors in which our country has managed to attract foreign investors, like, for example, Dacia Pitesti, Petrom, SIDEX Galați or the Italian investors in the footwear sector, the making of a more efficient external trade on these sections coincided – regardless of any other opinions – with the moment of the beginning of these investments (privatizations).

Summing up the existing premises at the beginning of our joining the European Union, from the point of view of the external trading, we appreciate the fact that the Romanian companies are presently well placed and remain competitive on the global market. The condition of maintaining and improving these positions is that these invest more in the know-how and advanced technologies, constantly being in touch with the latest evolutions on the international market, as the sole chance of survival in the global competition, under the conditions in which the difference between the expansion of our exports and the relative endowment with production factors, in the presumed analysis period in the present paper, could shock anyone.

The result will also depend on the governmental politics, because the conflict of the 17 years of EU pre-accession reforms (1990-2006) suggests the fact that they have hindered the establishing in our country of a competitive market, where the resources would be directed towards the industrial sectors with a potential comparative advantage. From this point of view, neither the agricultural sector could not manage to exploit to a maximum the existing favourable opportunities, the governmental politics meant to favour the creating of the great agricultural farms seemed to hinder this. It has happened the same regarding the work force, which has become a part of performance in our exports, through the number of Romanian who have left to work abroad, and this because of the fact that the direct foreign investments have failed in their role to exploit the cheap and qualified work force in our country. Therefore, an efficient governmental politics, along with the strengthening of the capacity to attract more of the EU structural funds in our economy should contribute to a new spring of the Romanian exports in the near future, and to the assessment of the comparative and competitive advantages of the leading sectors in Romania’s foreign trade.

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Annex 1

The share of each group of imported/exported products from/to EU in the total imports/exports of Romania for the same group of products, 1991-2006

A. The share of each group of exported products to EU in the total exports of Romania for the same group of products, 1991-2006 (%)

CN Code \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	43.80	28.87	19.57	22.28	33.59	37.40	30.11	55.95	57.80	55.07	69.86	61.44	64.02	70.65	69.37	69.59
II	56.14	71.05	63.27	66.67	24.84	13.71	33.33	33.96	42.55	47.29	49.01	50.00	63.16	71.01	78.97	75.93
III	73.25	67.23	23.08	5.13	14.52	1.85	1.82	3.23	13.73	4.55	10.71	4.00	14.81	40.63	36.88	30.69
IV	66.67	59.46	60.00	49.12	56.36	45.35	39.36	32.93	48.33	46.84	53.70	43.75	46.85	65.52	62.68	61.17
V	59.06	30.23	37.76	27.57	20.71	27.54	15.60	21.29	10.81	6.93	24.29	43.13	24.50	35.49	19.64	18.32
VI	23.50	19.69	21.69	28.40	26.43	25.36	26.57	32.00	24.92	26.06	22.46	25.24	27.88	34.75	64.32	65.16
VII	38.64	43.94	44.29	40.50	57.05	57.14	59.15	65.81	58.14	59.68	62.02	55.94	54.33	60.99	33.32	33.15
VIII	38.10	68.42	73.33	72.34	78.05	76.19	72.88	85.45	88.52	83.33	82.50	87.43	89.89	95.98	78.75	86.17
IX	36.17	32.77	23.84	25.53	32.16	29.66	30.67	37.72	45.28	39.48	42.57	42.81	47.11	52.70	21.64	21.81
X	66.67	46.15	31.25	39.29	37.88	36.96	31.58	36.59	37.78	37.50	49.57	41.67	47.01	47.06	47.84	47.71
XI	50.30	61.54	80.00	84.80	85.17	88.14	88.44	90.15	91.46	90.62	91.05	91.29	91.07	85.65	85.98	86.13
XII	49.30	60.71	81.02	91.22	92.75	93.30	96.69	97.97	96.26	97.55	97.72	96.93	96.62	98.22	84.84	84.10
XIII	59.02	61.76	60.00	67.74	66.67	64.17	64.93	67.14	64.00	65.14	65.28	63.38	66.20	76.42	81.84	81.28
XV	30.25	27.92	21.86	32.07	50.77	53.26	50.51	53.46	51.34	49.25	46.01	38.11	36.29	45.43	44.35	43.99
XVI	14.66	22.25	30.13	43.15	51.28	59.40	55.67	69.04	69.59	74.03	73.91	69.12	75.01	85.53	79.65	80.69
XVII	8.21	11.26	12.75	18.79	29.91	37.78	27.07	43.83	55.08	51.26	56.50	59.81	71.70	79.97	68.75	69.84
XVIII	25.00	44.44	60.00	53.85	62.50	66.67	68.18	63.64	64.52	68.89	65.67	76.47	76.71	81.19	74.43	74.59
XX	70.09	75.89	72.09	78.26	79.95	77.32	74.84	76.41	81.53	80.62	83.04	81.04	79.34	87.70	91.01	91.42
XXII	16.13	10.29	4.84	7.69	14.00	9.30	8.33	21.21	16.88	55.56	55.74	43.08	36.47	38.96	0.97	0.99

Sources: Personal computations based on statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

B. The share of each group of imported products from the EU in the total imports of Romania for the same group of products, 1991-2006 (%)

CN Code \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	88.57	51.52	39.66	32.53	36.00	54.24	44.83	35.14	39.13	48.15	48.41	58.33	41.00	65.81	57.03	58.52
II	47.68	53.03	58.62	31.36	22.69	32.33	26.49	24.88	24.88	23.31	20.27	22.11	25.84	37.75	46.30	46.08
III	81.82	76.67	61.11	52.00	68.18	82.35	70.00	54.00	56.67	52.63	57.89	55.71	47.27	51.92	50.79	49.81
IV	41.10	32.06	34.02	37.58	40.63	37.27	39.26	37.85	39.54	29.87	29.65	32.51	35.15	54.25	53.60	53.62
V	9.17	10.89	7.07	4.85	7.86	9.65	8.75	8.90	7.64	6.41	8.10	5.75	3.97	7.29	7.57	7.83
VI	48.67	55.17	54.67	57.26	55.89	60.00	60.07	63.17	64.92	64.08	64.51	67.63	65.86	75.53	73.41	70.35
VII	54.84	45.65	49.71	57.29	52.32	55.18	56.35	57.58	63.25	62.15	65.09	67.79	68.07	81.17	79.20	78.56
VIII	26.67	64.41	70.10	79.37	90.18	90.95	90.65	94.12	95.42	95.18	95.45	94.82	94.75	94.22	91.97	92.97
IX	51.72	60.00	61.54	69.57	74.42	63.41	65.22	50.94	54.69	48.35	43.90	44.59	41.67	80.33	82.83	81.73
X	25.00	30.00	32.93	42.11	43.96	46.58	47.79	48.01	51.21	51.42	54.66	56.88	59.80	77.24	86.31	85.91
XI	1.00	11.32	13.68	16.40	15.61	14.09	13.21	14.42	14.10	13.39	13.04	12.27	11.32	11.43	78.28	78.41
XII	40.54	65.63	60.98	75.00	79.27	87.88	83.45	78.98	84.36	81.74	85.21	81.55	82.28	80.62	73.88	74.93
XIII	40.00	30.23	27.78	31.03	30.68	26.09	27.56	24.14	22.07	24.49	27.13	24.76	23.53	30.48	75.38	74.96
XV	12.63	22.97	19.41	14.19	16.75	15.41	10.27	11.38	10.82	9.87	10.83	12.55	13.14	20.65	67.54	66.75
XVI	32.55	44.89	51.07	52.41	51.71	53.10	39.77	39.53	37.98	31.76	37.22	35.44	35.42	39.10	68.62	68.42
XVII	95.73	58.41	71.78	62.50	95.11	92.75	91.47	85.15	80.71	98.02	98.10	97.95	91.38	71.31	78.60	75.62
XVIII	12.28	47.27	47.00	55.88	47.06	63.87	59.31	61.00	59.02	49.35	47.02	52.27	59.11	76.36	63.26	61.98
XX	3.85	15.00	15.15	23.16	30.00	28.57	28.49	27.72	28.21	29.17	26.95	26.61	27.72	39.48	73.55	73.94
XXII	40.54	1.44	4.35	41.89	51.55	59.70	64.18	70.28	50.60	64.41	46.51	42.31	32.35	45.50	27.31	26.33

Sources: Personal computations based on the official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

Annex 2

The structure of the Romania's foreign trade with EU

A. The share of the sections of Romanian exported products to EU, in the total exports of Romania to EU, 1991-2006 (%)

CN Code \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	4.08	3.46	1.58	1.65	1.22	1.14	1.27	0.99	1.21	1.06	1.18	0.99	1.12	1.03	0.88	0.85
II	2.50	2.26	1.79	1.44	1.12	1.28	1.15	1.14	1.91	0.87	1.15	0.98	1.02	1.07	1.28	1.80
III	0.36	0.39	0.68	0.06	0.24	0.02	0.04	0.05	0.12	0.01	0.04	0.05	0.16	0.19	0.14	0.10
IV	1.54	1.85	1.36	1.11	0.85	0.97	0.89	2.57	0.55	0.51	0.67	0.73	0.68	0.55	0.60	0.64
V	23.25	11.24	10.72	6.64	3.24	3.78	2.08	2.02	0.97	0.86	2.46	5.98	3.15	3.50	4.88	3.12
VI	4.25	5.43	3.67	4.69	4.10	3.49	3.11	1.99	1.49	2.04	1.46	1.89	1.84	1.94	1.77	3.97
VII	1.29	2.46	1.78	1.97	2.48	2.19	2.30	2.13	1.91	2.07	1.86	2.25	2.95	3.13	3.64	2.10
VIII	0.61	1.97	1.78	1.36	8.90	0.80	1.01	0.99	1.07	1.75	1.52	1.61	1.54	1.38	1.28	3.62
IX	2.63	3.34	2.07	1.91	1.77	1.74	2.19	2.72	4.04	3.38	2.93	3.12	3.41	3.18	2.93	1.17
X	0.93	0.48	0.30	0.44	0.69	0.41	0.47	0.31	0.33	0.45	0.68	0.61	0.67	0.52	0.52	0.37
XI	12.71	18.27	31.05	33.04	28.71	30.33	36.04	36.39	36.12	34.31	35.14	33.03	32.69	29.07	26.41	20.85
XII	2.68	2.90	6.44	9.54	8.52	9.37	11.04	11.13	11.82	11.64	12.43	11.46	10.89	8.80	8.42	8.72
XIII	2.81	3.57	2.93	2.52	2.17	1.92	2.05	1.98	1.84	1.58	1.46	1.43	1.37	I.17	1.04	0.92
XV	12.17	13.35	10.36	11.52	15.66	13.42	16.50	15.77	12.09	12.35	9.05	7.57	7.36	9.62	8.96	9.90
XVI	6.46	7.40	6.52	7.56	7.22	7.93	8.62	10.17	12.13	16.18	16.10	15.96	17.95	20.59	21.81	24.58
XVII	7.59	3.50	7.54	7.50	7.75	3.37	7.57	3.50	4.45	3.94	4.38	5.18	5.88	6.94	8.32	10.32
XVIII	0.00	0.00	0.36	0.29	0.28	0.29	0.35	0.44	0.38	0.44	0.61	0.51	0.51	0.60	0.62	0.77
XX	18.03	18.10	14.36	11.50	9.86	8.49	8.26	7.41	7.36	6.50	6.60	6.38	6.59	6.50	6.40	6.19
XXII	0.00	0.00	0.20	0.24	0.20	0.11	0.11	0.30	0.26	0.56	0.39	0.28	0.28	0.22	0.09	0.01

Sources: Personal computations based on the official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

Explanatory note: the figures marked in red mean an unfavourable trend, indicating a diminishing of the exports; the figures marked in blue mean a favourable trend, indicating that the exports are growing.

B. The share of the sections of imported products in Romania from the EU, in the total Romania's imports from EU, 1991-2006 (%)

CN Code \ Year	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	2.25	1.72	0.90	0.92	0.89	0.68	0.49	1.07	0.74	0.95	1.63	1.65	1.25	1.50	1.87	1.64
II	10.57	8.78	9.41	1.27	0.67	0.89	0.76	0.82	0.86	0.87	0.76	0.59	2.23	1.20	1.00	0.98
III	0.70	1.17	0.43	0.45	0.37	0.30	4.00	0.45	0.29	0.25	0.22	0.36	0.20	0.10	0.15	0.15
IV	8.85	5.46	4.60	4.29	4.53	3.76	2.82	2.91	2.54	1.93	1.85	1.67	2.37	2.32	2.29	2.36
V	14.50	8.57	4.47	2.71	3.78	4.33	3.51	2.19	1.47	1.67	2.03	1.25	1.10	1.51	1.90	1.88
VI	12.08	8.85	9.52	9.40	10.04	9.92	9.54	9.51	9.72	9.34	8.81	9.76	9.24	9.23	8.83	8.69
VII	*2.53*	*3.17*	*3.45*	*3.80*	*3.94*	*4.11*	*4.23*	*4.32*	*4.64*	*4.90*	*5.54*	*6.37*	*7.38*	*7.30*	*7.59*	*7.88*
VIII	0.31	1.90	2.71	3.47	3.67	3.99	4.26	4.21	4.42	4.66	5.45	5.65	4.49	3.63	3.21	2.78
IX	1.11	0.73	0.65	0.54	0.80	0.53	0.58	0.45	0.57	0.55	0.55	0.64	1.07	1.13	1.31	1.25
X	1.30	1.90	1.57	2.18	2.64	2.69	2.66	2.58	2.57	2.35	2.41	2.60	3.04	2.84	2.75	2.62
XI	3.04	15.22	17.14	20.22	19.60	19.33	22.81	23.11	26.64	24.32	23.55	23.12	18.71	16.04	12.88	10.54
XII	1.14	1.08	1.04	1.50	L70	1.84	2.25	2.33	2.51	2.49	2.46	2.31	1.90	1.57	1.31	1.23
XIII	2.67	1.21	1.18	1.34	1.52	1.55	1.54	1.45	1.36	1.39	1.53	1.53	1.99	2.10	2.28	2.19
XV	5.80	5.47	4.77	5.16	5.75	6.47	5.81	5.94	5.88	5.82	6.42	6.93	8.15	8.68	9.59	10.68
XVI	*24.65*	*21.91*	*27.17*	*32.03*	*28.75*	*29.28*	*27.58*	*26.97*	*26.03*	*28.25*	*25.16*	*23.72*	*24.31*	*25.22*	*25.85*	*26.85*
XVII	3.48	9.42	5.95	3.96	3.70	3.21	3.24	4.32	3.77	4.92	6.78	7.20	8.02	11.50	12.92	14.15
XVIII	0.00	0.00	3.07	3.03	3.79	2.87	2.48	2.49	2.45	2.54	2.62	2.37	2.14	1.79	1.77	1.74
XX	1.02	1.30	1.87	2.64	2.60	2.56	2.61	2.43	2.35	2.34	2.13	2.18	2.31	2.14	2.24	2.28
XXII	0.00	0.00	0.10	1.09	1.26	1.68	2.45	2.46	2.21	0.46	0.20	0.10	0.08	0.12	0.27	0.11

Sources: Personal computations based on the official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).

Explanatory note: the figures marked in red mean an unfavourable trend, indicating a diminishing of the exports; the figures marked in blue mean a favourable trend, indicating that the exports are growing.

C. The share of the sections of imported products in Romania from the EU, in the total Romania's imports, 1991-2006 (%)

Year / NC Code	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
I	0.61	0.70	0.41	0.45	0.45	0.35	0.26	0.62	0.45	0.55	0.87	0.96	0.50	0.97	1.16	0.61
II	2.84	3.63	4.25	0.62	0.34	0.47	0.40	0.48	0.52	0.49	0.44	0.34	0.73	0.78	0.62	0.09
III	0.18	0.48	0.20	0.22	0.19	0.15	0.21	0.26	0.17	0.14	0.13	0.21	0.12	0.10	0.09	1.46
IV	2.37	2.26	2.07	2.07	2.29	1.97	1.48	1.67	1.56	1.09	1.06	0.98	1.03	1.51	1.42	1.16
V	3.89	3.52	2.02	1.30	1.90	2.27	1.86	1.27	0.91	0.93	1.16	0.73	0.49	0.98	1.18	5.37
VI	3.26	3.65	4.28	4.54	5.07	5.19	5.01	5.50	6.00	5.29	5.05	5.70	5.24	5.99	5.49	4.87
VII	0.67	1.31	1.55	1.84	1.99	2.16	2.22	2.49	2.86	2.78	3.18	3.72	4.03	4.74	4.72	1.72
VIII	0.08	0.79	1.21	1.67	1.85	2.09	2.23	2.43	2.73	2.64	3.14	3.30	2.98	2.36	1.99	0.77
IX	0.30	0.31	0.29	0.27	0.40	0.28	0.30	0.26	0.35	0.31	0.31	0.37	0.35	0.73	0.82	1.62
X	0.16	0.44	0.48	0.80	1.01	1.12	1.08	1.26	1.28	1.15	1.21	1.33	1.41	1.64	1.71	6.51
XI	0.04	1.02	1.37	1.87	1.84	1.65	1.83	2.22	2.59	2.18	2.10	2.02	1.68	1.44	8.01	0.76
XII	0.30	0.44	0.45	0.70	0.82	0.95	1.16	1.32	1.52	1.39	1.39	1.33	1.23	1.00	0.82	1.36
XIII	0.47	0.27	0.27	0.30	0.34	0.33	0.35	0.33	0.32	0.34	0.40	0.40	0.40	0.53	1.42	6.60
XV	0.49	1.00	0.82	0.70	0.89	0.96	0.61	0.76	0.71	0.68	0.79	0.93	1.01	1.73	5.96	16.59
XVI	4.40	6.55	8.94	10.69	10.63	11.63	9.16	9.08	8.92	7.87	8.43	8.10	8.49	9.30	16.08	8.74
XVII	2.21	2.74	3.09	2.92	3.67	3.36	3.11	4.44	4.21	4.39	5.33	5.56	5.65	6.59	8.04	1.08
XVIII	0.28	0.54	0.84	1.27	1.31	1.34	1.37	1.40	1.45	1.33	1.23	1.28	1.32	1.39	1.10	1.41
XX	0.02	0.12	0.18	0.37	0.53	0.50	0.53	0.53	0.55	0.54	0.48	0.50	0.53	0.70	1.39	0.07
XXII	0.89	0.04	0.04	0.52	0.63	0.88	1.29	1.42	0.42	0.27	0.12	0.06	0.05	0.08	0.09	0.61

Sources: Personal computations based on the official statistic data on Romanian foreign trade published by the National Institute of Statistics – Romania (INSSE), National Customs Authority in Romania (ANV) and Foreign Trade Department of Romania (DCE).