

## THE EVOLUTION OF THE ROMANIAN EXPORTS' COMPETITIVENESS ON THE INTERNATIONAL MARKET DURING 2001 – 2014

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**Abstract:** *The research is devoted to the analysis of Romanian exports competitiveness determined by the number of won/lost ranks in the world exports rankings (hierarchy) in 2014 as compared with 2001. The paper reveals the existence of four categories of exports, based on SITC (two digits), classified in function of the decreasing number of won positions in the world exports hierarchy as follows: category I with high competitiveness potential (HCP), 68-33 won positions; category II with competitiveness potential (CP), 29-15 won positions; category III with medium competitiveness potential (MCP), 14-8 won positions; category IV with low competitiveness potential (LCP), 7-0 won positions. A comparison is made between Romania and new EU member countries (Bulgaria, Czech Republic, Greece, Hungary, Poland, Slovakia, Slovenia ) which were positioned upward and downward Romania, within each group of exports by the following three categories (weak, medium and high potential of competitiveness). According to the EU Competitiveness Report on 2015, Romania belongs to the category of EU countries with modest but improving competitiveness. Romania is a country with an emerging economy, which is characterized by a structure of export of goods marked notably by a relatively low share of high-tech groups of approx. 8% (Financial Stability Report, 2015 BNR). One of the main conclusions of the paper is that Romania on international export markets is rather a price-taker than a price-maker due to a relatively low degree of the national exported goods and services. Another conclusion is related to a promising improvement for certain groups of export goods competitiveness especially for the raw materials and semi-products (II-IV group of SITC), where at macro-level the trade balance of Romania is positive, unlike the case of the majority of EU member countries, meaning the necessity to improve and stimulate export diversification especially via smart specialisation and promoting higher value-added product exports.*

**Keywords:** exports competitiveness; ranking; SITC; international specialization.

**JEL classification:** D40; F02; F10; F15.

The 2007-2014 post-accession period has represented for the Romanian exports a new stage for the structure and evolution of its competitiveness on the international markets. In order to identify the main trends of the Romanian exports' competitiveness on the SITC two digits categories, we have taken into account the primary UNCTAD data regarding their volume value in the international comparative context.

We have decided that the change of the Romanian's position in the international hierarchy of each country's exports during 2006, 2010 and 2014 compared to 2001 represents a genuine indicator for the exports' competitiveness, according to the number of positions gained/lost in the international changing classification. In other words, the more Romania ascends its place or position in the international hierarchy, the more its competitiveness capacity is growing and vice versa.

On the contrary, the more Romania loses positions in the respective hierarchy, the more its competitiveness power diminishes for the respective exports group. The indicator for the number of positions gained/lost for the Romanian exports in the international hierarchy during a certain time periods gives the opportunity to evaluate to which extent a country for

a certain category of goods exported on the international market has improved/diminished its competitiveness position outranks or, on the contrary, stays behind other competitors.

## **1. Theoretical approaches of exports competitiveness**

### **1.1. The Definition of the concept of competitiveness**

In the current conjuncture of global economy the competition is a true generator of economic performance for economic entities and competitiveness - a key factor for success in the competitiveness battle or race.

The competitiveness is a complex economic category within which one interfering a lot of relevant factors of influence such as: productivity, profitability, the surplus of trade balance, economic growth, etc.

One of the definitions considers that competitiveness represents the ability to sell goods and services on time, place and form appropriate to foreign buyers at prices equal to or lower than those offered by other potential providers earning at least the opportunity cost of the resources used (Sharples et Milham, 1990).

Competitiveness, which often is confused with financial indicators as profitability or productivity is the real or potential ability characterized by a relative over other competitors in the same market. Some specialists however hold that profitability and productivity are only partial measures of competitiveness (PriceWaterhouseCoopers Développement, 2001).

In European Union conceptions, competitiveness is the ability that an economy has to sustain high growth rates of productivity. Since the Lisbon Strategy, set out to make Europe the most competitive and dynamic economy in the world, competitiveness became one of the political priorities of the Union.

The necessity for a competitive European industry and a competitive market generally comes from a desire to fulfil the economic, social and environmental objectives and ensuring a social welfare growth.

The competitiveness in the EU vision is to excel in terms of research and innovation, information technologies and communication, entrepreneurship, competition, education and training, and depends on the capacity, outlook and "conduct" of economic activities of European countries to achieve structural adjustment towards obtaining performances in these areas.

In the context of free market economy, the competitiveness is defined as the business capacity to maintain or improve its national or international position. At micro-level of individual firms it involves entrepreneurial quality and quality of managers, goods and services level of innovation, connection with the markets, access to the production factors (land, labour and capital, efficiency of production process).

At country level, competitiveness is manifested in more aggregated forms and comprises: the level of enterprises culture; the size of comparative advantages; resource endowments; research and innovation; skills availability; functional financing markets.

### **1.2. Fundamental traits and attributes that characterize the concept of competitiveness**

- Competitiveness is, broadly, the attractiveness of a product, entities and their levels to meet consumer preferences, performance benefits of an economic entity, of a nation;
- Competitiveness is a relative concept, considering an economic entity capacity, compared with other entities;
- Competitiveness is not a static concept, but a dynamic one, involving a potential time format. The economic technological performance, of an entity at a certain time, it is not necessarily related to competitiveness. But, maintaining or increasing the respective performance over time, meaning long-term success in the

competitive process, can be a proof of the competitiveness of this unit; which indicates the health of the entity and includes several indicators in compliance or responding to a critical system of a competitive position on the market.

In the special literature one can distinguish three levels of competitiveness approach: macro level, describing national competitiveness; micro level, including a dynamic vision of competitive process; commercial approach, predominant in the analysis, due to the availability of international trade statistics.

The competitiveness of a country represents "level that a country in the free market produces goods and services that meet the tastes of the international market, which simultaneously maintains and improves population real incomes in the long term" (H.H. Chartrand, 2002) and "competitiveness in the international trade represents the ability or inability measure of a country to sell its products on international markets" (OECD, 1996). At micro level competitiveness, is a firm's ability to produce goods and/or services with higher quality and at a lower price than its internal or external competitors, while international competitiveness is the capacity of a country, in free market conditions and of fair competition, to design, produce and market goods and services that are of higher quality or at a price below the products and services of other countries (Carbaugh, 1995)

The competitiveness of a firm is related to its safety, efficiency, quality, high productivity, adaptability, successful, modern management, superior products, optimal costs which requires a rigorous examination of both that company, and business environment of its activity.

Competitiveness at the macro level is defined as "a set of institutions, policies and factors that determine the country's level of productivity. Productivity, in turn, sets a sustainable level of prosperity that can be earned by an economy. In other words, more competitive economies may have the capacity to produce a higher level of income for citizens "(The Global Competitiveness Report 2009-2010), and increase the national wealth.

From literature review we concluded that there are two approaches nation's competitiveness and companies' competitiveness (Porter, 1990, Krugman and Venables, 1990).

Krugman states that the role of macroeconomic policies must be flexible enough to allow companies to face international competition, the nation is the one that can sustain or not a favourable environment for their activity, and firms, in turn are the ones that create value and offers the nation the strength to face domestic and international competition.

"The true nature of capitalist competition is not price competition but technological competition, that leads to" new products, new technologies, new sources of supply, new forms of organization (...) competition that determines the decisive advantages of cost or quality and that breaks not only the boundaries of profit and the output of existing firms, but their fundamentals and life itself" (Schumpeter, J.A. 1943).

When talking about the competitiveness of a sector or economy, it deals with the concept in connection to foreign competitors, i.e. considering its performance in foreign trade, or, in other words, the industry's ability (businesses they represent) to penetrate foreign markets (increasing exports and foreign direct investments) and to face competition. Increasing exports and FDI have a direct impact on productivity growth. Increasing exports depends on factors related directly to the internal environment of enterprises, which are specific to each entity and also on nationwide factors such as: natural resources, highly skilled workforce, well-developed infrastructure, effective state policies (Global Competitiveness Indicator), national values, culture, history, etc.

Thus, due to the specificity of each economy, industries or economic units, there is a big difference between models that ensure their competitiveness - factors that create the competitiveness groundwork in a country, may be insignificant to another.

The competitiveness of a country does not mean export success in every industry, or even in most industries. Obviously, no country can provide a trade surplus in every sector of the economy. And the specialization in certain sectors automatically implies lower performance

in others. Even the most developed countries can't ensure success on the international market form all industrial sectors. Thus, national authorities targeting an increase in national competitiveness should focus selectively on domains that present a competitive advantage against competing industries abroad, or have a growth potential. "Trying to explain" competitiveness "at national level, you need to understand the determinants of productivity levels and growth rate. First and foremost we should focus not on the economy as a whole, but on specific industries and segments of industry" (Porter, 1990). Scientists did not yet reached a consensus on the competitiveness definition. Often when they are talking about insuring country competitiveness, it is envisaged targeting efforts and resources for increasing high real income for the population, the productivity factors and foreign trade performance, focusing on product export with high added value.

### **1.3. Foreign trade - indicator of national competitiveness**

Being a very complex concept, different studies provide a variety of factors and indicators that determine national competitiveness. Being an expression indicating the possibility of a country to create added value and an increased real income for its citizens as well as its ability to maintain a high market share in world exports (which reflects the country's performance on foreign markets), right as measuring indicators of competitiveness in literature review very often is used the analysis total productivity of production factors or review exports performances.

Porter supports the idea that, despite the globalization of production and trade, competitive advantage is created within a national framework, through their institutional, natural, cultural, economic characteristics determining ultimately the development of certain economic activities.

Based on definitions, concepts of competitiveness by implementing direct exports, we felt that one of the indicators relatively simple, but relevant in our view (opinion), necessary and sufficient is the positioning total export or groups of goods and services of a country in the ranking of world exports.

Moreover, the consistency of this indicator stems from interfering its main influence factors in a static and dynamic approach.

We note that the indicator is simple as it is expressed through the place or rank in the hierarchy, and it is in conjunction with positions won or lost in that hierarchy, in a certain period of time as compared to other countries. But the evolution of the export ranks for a country reflects in a special synthetic manner the potential of competitiveness increase as a result of quantity and quality of exports and their diversification (specialisation), internal and external prices, efficiency at large of foreign trade of the respective country.

The post-accession period 2007-2014 accounted for Romania's exports a new stage in terms of structure and evolution of its worldwide competitiveness. In order to identify the main trends of Romanian's export competitiveness on the two digits SITC categories, we used UNCTAD primary data concerning their value volume in international comparative context.

We prioritized the development of positions won / lost, especially at Romania's export goods that have significant shares in the total volume of Romanian exports; this doesn't mean that the other commodities with lower shares must be ignored.

The change of Romania's position in the hierarchy world's exports by countries in 2006, 2010 and 2014, as compared to 2001, constitutes a sui generis indicator of its export competitiveness, according to the number of positions (ranks) won/lost in the framework of export world ranking. In other words, as Romania's climbs in the world hierarchy as place or position indicates a greater competitive ability. Conversely, a loss of positions in the hierarchy means a diminishing in the competitive strength of exports. The indicator regarding the number of positions won/lost by Romania's exports in the world ranking, in certain periods of time, provide the opportunity to assess to what extent a country for a certain category of exported goods on the world market has improved/worsened its

competitive position, surpassing or, on the contrary, remaining behind some other competitors.

## 2. Positions won by Romanian export groups over the period 2001-2014

The increased number of the export positions in the international markets, won by Romania during 2001-2014 has been different depending on capacity, a better or weaker competitiveness, the number of exporting competitors which Romania has outranked (surpassed).

The pre-association (1990-1995), the association (1995-2000) and pre-accession (2001-2006) periods have been characterized for the Romanian exports by a sensitive reduction of the export list and loss of important traditional external markets caused by negative impact of recession, high transition costs and custom duties diminishing as a result of adoption of EU *acquis communautaire* and other commercial rules and regulation.

We prefer to study the 2001-2014 period when, especially during the post-accession period, it has been recorded a slight recovery of the exports from the competitiveness viewpoint after the transition costs and economic crisis impact. The economic decline generated by international financial crisis in 2009 was a challenge for the Romanian economy from the viewpoints of both magnitude and speed recovery. Unlike imports, exports have recovered at macroeconomic level in 2010 even exceeding the peak level of exports recorded in 2008.

**Table 1:** The total number of positions won/lost by Romania within world exports hierarchy by the main goods groups in 2006, 2010 and 2014 as compared to 2001

Years	Total number of positions won	Total number of positions lost
2006	64	32
2010	65	31
2014	68	28

Source: Own estimates based on the International trade in goods - Exports data 2001 - 2014 ITC ([www.intracen.org](http://www.intracen.org))

A synthetic analysis of the evaluation for 96 groups of goods exported by Romania during 2006-2010 and 2014 (table 1) points out the following aspects:

- *the total number of positions won* by Romania in the international exports hierarchy by countries and groups of goods has more than doubled in comparison with the number of the positions lost (68 positions won against 26 positions lost in 2014 as compared to 2006), meaning a favourable trend in the evolution of the Romanian exports competitiveness according to the used indicator (the number of positions won/lost) during the post-accession period. However this position trend registered by Romanian exports in the world competition has to be related to the economic importance of export goods better ranking in 2014 in comparison with 2001.
- *the number of positions (places) lost* by Romania in the international exports hierarchy during 2014 as compared to 2006, has diminished from 32 to 28 which shows a favourable trend for the increase of the competitiveness capacity for the Romanian exports in comparison with the previous periods when it has been recorded a decrease of export competitiveness.

In order to study in detail the evolution of the export goods competitiveness in Romania, we have delimited the number of positions won during 2014 compared to 2001 in the categories I-IV in a decreasing order of the positions won number.

The 1st Category includes the export categories with a *highest level of competitiveness (HLC)* which have won between 68 and 33 positions, pointing out a relative high level of competitiveness.

The 2nd Category with *competitiveness potential (CP)* refers to the export groups which, during the analysed period have won between 29 and 15 positions, in the general world export classification.

The 3rd Category with a *medium competitiveness potential (MCP)* refers to the export groups which have won between 14 and 8 positions in the general classification.

The 4th Category includes exports groups with *poor competitiveness potential (PCP)* with 7 to zero positions won.

**Table 2:** The hierarchy of the export products groups, according to the intervals of the number of positions won by Romania on the international market during 2014 compared to 2001

Categories of goods exported, by the number of gained positions on the world market	Name of the export goods groups, gaining positions in 2014 (figures in brackets are indicating the percentage share in total Romania's exports and the number of positions won in 2014 compared to 2001)
Category I high level of competitiveness (HLC) 68 – 33 positions	Tobacco and manufactured tobacco substitutes (1.36 %, +68); Pharmaceutical products (1.63 %, +44); Cocoa and cocoa preparations ( 0.09 %, +43); Tin and articles thereof (0.004 %, +40); Miscellaneous edible preparations (0.23 %, +37); Sugars and sugar confectionery (0.17 %, +36); Bird skin, feathers, artificial flowers, human hair (0.01 %, +35); Meat and edible meat offal (0.40 %, +33); Percentage share in Romania's total export : 3,89%; Total number of export groups: 8
Category II competitiveness potential (CP) 29 – 15 positions	Cotton (0.09 %, +29); Wool, animal hair, horsehair yarn and fabric thereof (0.24 %, +29); Essential oils, perfumes, cosmetics, toiletries (0.54 %, +28); Rubber and articles thereof (3.59 %, +26); Meat, fish and seafood food preparations nes. (0.22 %, +25); Albuminoids, modified starches, glues, enzymes (0.03 %, +24); Soaps, lubricants, waxes, candles, modelling pastes (0.30 %, +23); Coffee, tea, mate and spices (0.04 %, +23); Explosives, pyrotechnics, matches, pyrotechnics, etc. (0.01 %, +23); Vehicles other than railway, tramway (14.17 %, +22); Impregnated, coated or laminated textile fabric (0.16 %, +22); Milling products, malt, starches, inulin, wheat gluten (0.02 %, +22); Cereals (3.78 %, +21); Oil seed, oleagic fruits, grain, seed, fruit, etc., nes. (1.62 %, +20); Cereal, flour, starch, milk preparations and products (0.23 %, +19); Miscellaneous manufactured articles (0.14 %, +19); Commodities not elsewhere specified (0.90 %, +17); Miscellaneous articles of base metal (0.58 %, +17); Optical, photo, technical, medical, etc. apparatus (1.43 %, +16); Animal, vegetable fats and oils, cleavage products, etc. (0.41 %, +16); Residues, wastes of food industry, animal fodder (0.37 %, +16); Printed books, newspapers, pictures etc. (0.14 %, +16); Knitted or crocheted fabric (0.05 %, +16); Silk (0.15 %, +16)

Categories of goods exported, by the number of gained positions on the world market	Name of the export goods groups, gaining positions in 2014 (figures in brackets are indicating the percentage share in total Romania's exports and the number of positions won in 2014 compared to 2001)
	+16); Electrical, electronic equipment (15.53 %, +15); Other made textile articles, sets, worn clothing etc. (0.64 %, +15); Photographic or cinematographic goods (0.01 %, +15); Special woven or tufted fabric, lace, tapestry etc. (0.08 %, +15); Products of animal origin, nes (0.07 %, +15); Percentage share in Romania's total export: 45,54%; Total number of export groups: 28
Category III medium competitiveness potential (MCP) 14 – 8 positions	Other base metals, cermets, articles thereof (0.02 %, +14); Tanning, dyeing extracts, tannins, derives, pigments etc. (0.09 %, +13); Manmade filaments (0.24 %, +13); Tools, implements, cutlery, etc. of base metal (0.17 %, +11); Machinery, nuclear reactors, boilers, etc. (10.47 %, +9); Plastics and articles thereof (2.03 %, +8); Articles of iron or steel (3.05 %, +8); Fish, crustaceans, molluscs, aquatic invertebrates nes. (0.03 %, +8); Dairy products, eggs, honey, edible animal product nes. (0.32 %, +8); Manmade staple fibres (0.41 %, +8); Raw hides and skins (other than furskins) and leather (0.20 %, +8); Live trees, plants, bulbs, roots, cut flowers etc. (0.01 %, +8); Percentage share in Romania's total export: 17,04%; Total number of export groups: 12
Category IV with poor competitiveness potential (PCP) 7 – 0 positions	Furniture, lighting, signs, prefabricated buildings (3.87 %, +7); Aluminium and articles thereof (1.66 %, +7); Wood and articles of wood, wood charcoal (3.56 %, +7); Vegetable, fruit, nut, etc. food preparations (0.07 %, +7); Clocks and watches and parts thereof (0.01 %, +7); Stone, plaster, cement, asbestos, mica, etc. articles (0.09 %, +7); Paper and paperboard, articles of pulp, paper and board (0.49 %, +5); Beverages, spirits and vinegar (0.21 %, +5); Headgear and parts thereof (0.04 %, +5); Ships, boats and other floating structures (1.44 %, +4); Aircraft, spacecraft, and parts thereof (0.40 %, +3); Lead and articles thereof (0.09 %, +3); Railway, tramway locomotives, rolling stock, equipment (0.42 %, +2); Wadding, felt, nonwovens, yarns, twine, cordage, etc. (0.07 %, +2); Live animals (0.60 %, +2); Miscellaneous chemical products (0.25 %, +1); Copper and articles thereof (0.44 %, +1); Pearls, precious stones, metals, coins, etc. (0%, 0); Iron and steel (2.92 %, 0); Articles of leather, animal gut, harness, travel goods (0.42 %, 0); Percentage share in Romania's total export: 17,05%; Total number of export groups: 20

Source: Own estimated based on the International trade in goods - Exports data 2001 - 2014 ITC ([www.intracen.org](http://www.intracen.org))

For each category of exports competitiveness it is necessary to apply different and appropriate strategic approaches which suppose a complex combined of several factors of influence, besides the percentage share (importance) of the export group, such as value added size, prices, technological level, potential competitors etc.

In Table 2 we have presented the export categories from I to IV, by intervals, according to the number of positions won during 2014 compared to 2001, specifying in the brackets the weight of the export group from the total Romanian exports and the number of positions won in the international exports hierarchy by countries.

*The 1st Category (HPC)* with 8 groups of goods has won the biggest number of positions in the international classification list (between 68 and 33 positions).

Although this shows a sensible competitiveness progress, these export groups represent a relative small weight (3.89 % from the total Romanian exports) and refers to the exports for the majority of the raw materials. The highest weight from the total exports belongs to the pharmaceutical products (1.63%).

*The 2nd category (PC)* with 28-15 positions won in the SITC classification list includes a number of 28 groups of goods with a 45.54% weight from the total exports, out of which the most important groups are: electrical and IT equipment (15.53%), vehicles other than railways and trams (14.17%) and cereals (3.78%). In fact a good part of these exports represent an important segment of manufacturing industries with potential competitiveness belonging especially to the medium technological level.

*The 3rd category (MPC)* of export goods which has won between 14 and 8 positions in the international hierarchy includes a number of 12 groups of products, with a percentage share of 17.04% in the total exports, has as main components the groups: machinery, nuclear reactors, boilers (10.47%), iron and steel products (3,05%) and plastics and plastic products (2.03%). This export category needs special strategies for improving the technological level.

*The 4th category (PPC)*, with the smallest number of won positions during the specified periods, between 7 and 0 positions, includes 20 groups, with a weight of 17.05%, out of which the most important are: furniture, chandeliers, construction prefabs (3.87%), wood, wood items and carbonization wood items (3.56%), ships, steamers, boats and other floating structures (1.44%), iron and steel (2.92%). The PPC group of exports shows a reduced competitiveness potential for the time being, their progress in the international competition being relatively modest.

### **3. Lost positions by Romanian export SITC groups in 2014 against 2001**

Regarding the lost positions of the Romanian export on the international market in 2014, compared to 2001 (Table 3) we have identified four categories in an increasing order, of the number of lost positions:

- category I with a less significant loss (LSL), with 1-3 positions lost;
- category II with a medium loss (ML), with 4-6 positions lost;
- category III with a significant loss (SL), with 10-19 positions lost;
- category IV with a very high loss (VHL), with 28-57 positions lost.

**Table 3:** Classification of the groups of export goods, according to the number of positions lost in the international market, during 2014 against 2001

Categories of goods exported, by intervals, of the number of lost positions on the world market	Name of the export goods groups, ( in brackets are indicated the percentage share in total world exports and positions lost in 2014 compared to 2001)
Category I less significant loss (LSL) 1 – 3 (positions)	Ceramic products (0.23 %, -1); Vegetable textile fibres nes, paper yarn, woven fabric (0.004 %, -1); Umbrellas, walking-sticks, seat-sticks, whips, etc. (0.003 %, -1); Articles of apparel, accessories, not knit or crochet (3.85 %, -2); Articles of apparel, accessories, knit or crochet (1.39 %, -3); Footwear, gaiters and the like, parts thereof (2.69 %, -3); Musical instruments, parts and accessories (0.02 %, -3); Percentage share in Romania's total export: 8.19%; Total number of export groups: 7
Category II medium loss (ML) 4 – 6 (positions)	Mineral fuels, oils, distillation products, etc. (6.01 %, -4); Edible fruit, nuts, peel of citrus fruit, melons (0.18 %, -4); Edible vegetables and certain roots and tubers (0.17 %, -4); Nickel and articles thereof (0.01 %, -4); Furskins and artificial fur, manufactures thereof (0.01 %, -4); Toys, games, sports requisites (0.22 %, -5); Glass and glassware (0.24 %, -5); Pulp of wood, fibrous cellulosic material, waste etc. (0.03 %, -6); Percentage share in Romania's total export: 6.87%; Total number of export groups: 8
Category III significant loss (SL) 10 – 19 (positions)	Organic chemicals (0.23 %, -10); fertilizer (0.59 %, -11); Carpets and other textile floor coverings (0.02 %, -12); Inorganic chemicals, precious metal compound, isotopes (0.35 %, -16); Lac, gums, resins, vegetable saps and extracts nes. (0.002 %, -17); Salt, sulphur, earth, stone, plaster, lime and cement (0.11 %, -19); Percentage share in Romania's total export: 1.3%; Total number of export groups: 6
Category IV very high loss (VHL) 28 – 57 (positions )	Ores, slag and ash (0.11 %, -28); Zinc and articles thereof (0.01 %, -29); Cork and articles of cork (0.0001 %, -36); Manufactures of plaiting material, basketwork, etc. (0.0002 %, -57); Percentage share in Romania's total export: 0.12%; Total number of export groups: 4

Source: Own estimated based on the International trade in goods - Exports data 2001 - 2014 ITC ([www.intracen.org](http://www.intracen.org))

The 1st category (LSL) with the smallest number of lost positions (1-3) includes 7 groups of export goods, with a total weight of 8.19%, out of which the most important are: manufactures and ready-made clothes, not mercerized or crocheted accessories (3.85%); footwear (2,69%); suits, crocheted accessories and items (1.39%). It is worth mentioning that the so called export based on the „lohn” production consists of components with the biggest weight of lost position for this category of products (textiles, ready-made clothes, footwear).

The 2nd category (ML), with a loss between 4 and 6 positions in the international export classification list, includes a number of groups which represent a weight in the total exports of the country of 6.87%, out of which 6.01% is represented by the mineral fuels, oils and distilled products.

The 3rd category (SL), with an important number of lost positions between 9 and 19 positions, includes 6 groups of exports with a total weight of 1.30%, each group counting under 1.0% of the total Romanian exports.

The 4th category (VHL), with the most lost positions between 28 and 57, includes 4 groups of goods with a total weight of 0.12%.

It is worth to mention that Romania has recorded the biggest loss in competitiveness at the category "other products" export, which had a relatively small weight in the total exports of the country.

#### 4. The position of the Romanian exports in 2014 on the international market, by SITC components (groups)

The globalisation process is marked by permanent reconfigurations of the structural components and the progress of the value chains at the international level, due to many influence factors with economic, social, geo-politic, environmental and technical and scientific character, or different time horizon.

The place which the Romanian exports have in the international hierarchical classification list by countries and product SITC groups indicates a variety of positions. For a better understanding of Romanian export competitiveness on international market we established several segments of hierarchical intervals indicating (table 4) in brackets Romania's export ranks on the international export SITC list.

**Table 4:** Classification of the Romanian export product groups, according to Intervals regarding its places (positions)\* on the international market during 2014

Intervals on places (positions) of Romanian exports to the global market	Name of the goods group and position (place) in the hierarchy of world exports
Position (ranks) 1-20 11 groups of goods	Silk (5); Cereals (12); Tobacco and manufactured tobacco substitutes (13); Oil seed, oleagic fruits, grain, seed, fruit, etc., nes. (14); Footwear, gaiters and the like, parts thereof (14); Live animals (15); Articles of apparel, accessories, not knit or crochet (16); Wool, animal hair, horsehair yarn and fabric thereof (17); Wood and articles of wood, wood charcoal (18); Furniture, lighting, signs, prefabricated buildings (19); Other made textile articles, sets, worn clothing etc. (20); Ships, boats and other floating structures (20);
Position (ranks) 22-30 13 groups of goods	Railway, tramway locomotives, rolling stock, equipment (22); Manmade staple fibres (23); Rubber and articles thereof (24); Vehicles other than railway, tramway (24); Lead and articles thereof (24); Articles of leather, animal gut, harness, travel goods (26); Electrical, electronic equipment (28); Musical instruments, parts and accessories (28); Commodities not elsewhere specified (29); Miscellaneous articles of base metal (29); Special woven or tufted fabric, lace, tapestry

Intervals on places (positions) of Romanian exports to the global market	Name of the goods group and position (place) in the hierarchy of world exports
	etc. (29); Iron and steel (29); Manmade filaments (30); Fertilizers (30);
<p style="text-align: center;">Position (ranks) 31-40 23 groups of goods</p>	<p>Pharmaceutical products (31); Impregnated, coated or laminated textile fabric (31); Headgear and parts thereof (31); Iron and steel (31); Bird skin, feathers, artificial flowers, human hair (32); Ceramic products (32); Meat and edible meat offal (33); Products of animal origin, nes. (33); Articles of apparel, accessories, knit or crochet (33); Residues, wastes of food industry, animal fodder (34); Optical, photo, technical, medical, etc. apparatus (36); Machinery, nuclear reactors, boilers, etc. (36); Toys, games, sports requisites (36); Soaps, lubricants, waxes, candles, modelling pastes (37); Raw hides and skins (other than furskins) and leather (37); Aluminium and articles thereof (37); Aircraft, spacecraft, and parts thereof (37); Umbrellas, walking-sticks, seat-sticks, whips, etc. (38); Tin and articles thereof (39); Tools, implements, cutlery, etc. of base metal (39); Meat, fish and seafood food preparations nes. (40); Animal, vegetable fats and oils, cleavage products, etc. (40); Printed books, newspapers, pictures etc. (40); Furskins and artificial fur, manufactures thereof (40);</p>
<p style="text-align: center;">Position (ranks) 41-50 15 groups of goods</p>	<p>Essential oils, perfumes, cosmetics, toiletries (41); Miscellaneous manufactured articles (43); Photographic or cinematographic goods (43); Glass and glassware (44); Knitted or crocheted fabric (45); Plastics and articles thereof (45); Vegetable textile fibres nes., paper yarn, woven fabric (46); Paper and paperboard, articles of pulp, paper and board (47); Cotton (48); Cereal, flour, starch, milk preparations and products (48); Copper and articles thereof (48); Nickel and articles thereof (48); Carpets and other textile floor coverings (48); Explosives, pyrotechnics, matches, pyrotechnics, etc. (49); Other base metals, cermets, articles thereof (50); Dairy products, eggs, honey, edible animal product nes. (50); Wadding, felt, nonwovens, yarns, twine, cordage, etc. (50); Edible vegetables and certain roots and tubers (50); Pulp of wood, fibrous cellulosic material, waste etc. (50);</p>
<p style="text-align: center;">Position (ranks) 52-59 10 groups of goods</p>	<p>Cocoa and cocoa preparations (52); Miscellaneous edible preparations (53); Stone, plaster, cement, asbestos, mica, etc. articles (53); Albuminoids, modified starches, glues, enzymes (54); Miscellaneous chemical products (54); Zinc and</p>

<b>Intervals on places (positions) of Romanian exports to the global market</b>	<b>Name of the goods group and position (place) in the hierarchy of world exports</b>
	articles thereof (55); Beverages, spirits and vinegar (56); Tanning, dyeing extracts, tannins, dyes, pigments etc. (58); Organic chemicals (58); Sugars and sugar confectionery (59); Inorganic chemicals, precious metal compound, isotopes (59)
Position (ranks) 61-70 6 groups of goods	Clocks and watches and parts thereof (61); Mineral fuels, oils, distillation products, etc. (65); Live trees, plants, bulbs, roots, cut flowers etc. (67); Edible fruit, nuts, peel of citrus fruit, melons (68); Vegetable, fruit, nut, etc. food preparations (69); Salt, sulphur, earth, stone, plaster, lime and cement (70);
Position (ranks) 71-112 7 groups of goods	Cork and articles of cork (71); Milling products, malt, starches, inulin, wheat gluten (73); Coffee, tea, mate and spices (76); Manufactures of plaiting material, basketwork, etc. (79); Ores, slag and ash (83); Lac, gums, resins, vegetable saps and extracts nes.(88); Fish, crustaceans, molluscs, aquatic invertebrates nes. (112);

\*) in the brackets is stipulated the position of the Romanian export product group on the international market in 2014.

Source: Own estimated based on the International trade in goods - Exports data 2001 - 2014 ITC ([www.intracen.org](http://www.intracen.org))

From table 4 the most relevant conclusions regarding the international positions of the Romanian exports groups are the following:

- the best places in the international hierarchy are represented by the export of raw materials, food and non-food industry, cereals (the 12th place in the world), tobacco (13), footwear (14), chandeliers and furniture (19);
- other Romanian exports are on hierarchically inferior positions namely: 36 export groups are placed on positions between 27 and 40 of the international exports classification, 25 groups on the positions between 41 and 59 and 13 groups on the places between 70 and 112.

Tables 5 and 6 regard the total number of competitors in Central and Eastern Europe with upper and lower rank, against Romania, in 2014 in the world's exports.

For the determination of the Romanian Export Competitiveness we selected for comparison the EU New member Countries (Bulgaria, Czech Republic, Greece, Hungary, Poland, Slovakia, Slovenia ) which were positioned upward and downward Romania, within each group of exports by the following three categories ( weak, medium and high potential of competitiveness).

**Table 5:** Total number of competitors in Central and Eastern Europe with higher rank, than Romania, in 2014 in the world's exports

Intervals on the number of competitors with higher rank than Romania	Name of the export goods groups and position (rank) outperforming Romania
<p>Category I with weak potential of competitiveness 10-7 positions</p>	<p>Fish, crustaceans, molluscs, aquatic invertebrates nes. (7); Dairy products, eggs, honey, edible animal product nes. (8); Live trees, plants, bulbs, roots, cut flowers etc (8); Edible fruit, nuts, peel of citrus fruit, melons (7); Milling products, malt, starches, inulin, wheat gluten (8); Lac, gums, resins, vegetable saps and extracts nes. (7); Animal, vegetable fats and oils, cleavage products, etc (7); Cocoa and cocoa preparations (7); Cereal, flour, starch, milk preparations and products (7); Vegetable, fruit, nut, etc food preparations (8); Miscellaneous edible preparations (7); Beverages, spirits and vinegar (9); Salt, sulphur, earth, stone, plaster, lime and cement (8); Tanning, dyeing extracts, tannins, derives, pigments etc (8); Albuminoids, modified starches, glues, enzymes (8); Miscellaneous chemical products (7); Cork and articles of cork (10); Manufactures of plaiting material, basketwork, etc. (8); Pulp of wood, fibrous cellulosic material, waste etc (8); Paper and paperboard, articles of pulp, paper and board (7); Wadding, felt, nonwovens, yarns, twine, cordage, etc (7); Carpets and other textile floor coverings (7); Knitted or crocheted fabric (7); Umbrellas, walking-sticks, seat-sticks, whips, etc (7); Stone, plaster, cement, asbestos, mica, etc articles (9); Zinc and articles thereof (8); Other base metals, cermets, articles thereof (7); Clocks and watches and parts thereof (8); Toys, games, sports requisites (7);</p>
<p>Category II with medium potential of competitiveness 6-4 positions</p>	<p>Meat and edible meat offal (5); Products of animal origin, nes. (4); Edible vegetables and certain roots and tubers (6); Coffee, tea, mate and spices (6); Vegetable plaiting materials, vegetable products nes. (5); Sugars and sugar confectionery (6); Residues, wastes of food industry, animal fodder (5); Ores, slag and ash (5); Mineral fuels, oils, distillation products, etc (4); Inorganic chemicals, precious metal compound, isotopes (6); Organic chemicals (6); Pharmaceutical products (5); Essential oils, perfumes, cosmetics, toiletries (6); Soaps, lubricants, waxes, candles, modelling pastes (4); Explosives, pyrotechnics, matches, pyrotechnics, etc (5); Photographic or cinematographic goods (6); Plastics and articles thereof (5); Rubber and articles thereof (4); Articles</p>

Intervals on the number of competitors with higher rank than Romania	Name of the export goods groups and position (rank) outperforming Romania
	of leather, animal gut, harness, travel goods (4); Furskins and artificial fur, manufactures thereof (6); Printed books, newspapers, pictures etc (6); Cotton (4); Vegetable textile fibres nes, paper yarn, woven fabric (4); Manmade filaments (4); Impregnated, coated or laminated textile fabric (4); Ceramic products (6); Glass and glassware (6); Iron and steel (5); Copper and articles thereof (6); Nickel and articles thereof (6); Aluminium and articles thereof (5); Tin and articles thereof (4); Tools, implements, cutlery, etc of base metal (6); Miscellaneous articles of base metal (5); Machinery, nuclear reactors, boilers, etc (5); Electrical, electronic equipment (4); Railway, tramway locomotives, rolling stock, equipment (5); Vehicles other than railway, tramway (5); Miscellaneous manufactured articles (6);
Category III with high-potential of competitiveness 3-0 positions	Live animals (0); Cereals (1); Oil seed, oleagic fruits, grain, seed, fruit, etc., nes. (1); Meat, fish and seafood food preparations nes. (3); Tobacco and manufactured tobacco substitutes (2); Fertilizers (2); Raw hides and skins (other than furskins) and leather (2); Wood and articles of wood, wood charcoal (1); Silk (0); Wool, animal hair, horsehair yarn and fabric thereof (2); Manmade staple fibres (1); Special woven or tufted fabric, lace, tapestry etc. (2); Articles of apparel, accessories, knit or crochet (2); Articles of apparel, accessories, not knit or crochet (1); Other made textile articles, sets, worn clothing etc. (3); Footwear, gaiters and the like, parts thereof (0); Headgear and parts thereof (3); Bird skin, feathers, artificial flowers, human hair (1); Articles of iron or steel (3); Lead and articles thereof (3); Aircraft, spacecraft, and parts thereof (3); Ships, boats and other floating structures (2); Optical, photo, technical, medical, etc. apparatus (3); Musical instruments, parts and accessories (2); Furniture, lighting, signs, prefabricated buildings (3); Commodities not elsewhere specified (1);

Source: Own calculations based on International trade in goods - Exports data 2001-2015 SITC ([www.intracen.org](http://www.intracen.org))

In the category of Central and Eastern Europe countries with high rank potential of competitiveness, Romania:

- 1st place in "live animals", "silk", "shoes", 2nd in "cereals", "Oil seed, oleagic fruits, grain, seed, fruit, etc. ", " articles of apparel, accessories, not knit or crochet", and 3rd place in "tobacco and manufactured tobacco substitutes", " fertilizers", "special woven or tufted fabric, lace, tapestry etc.";
- regarding medium potential of competitiveness, Romania ranks 6th in " aluminium and articles thereof", "plastics and articles thereof", " ores, slag and ash" and 7 in „edible vegetables and certain roots and tubers ", " Inorganic chemicals, precious metal compound, isotopes ", " glass and glassware "etc.;
- other Romanian exports fill weaker rank namely: 10th place "Stone, plaster, cement, asbestos, mica, etc. articles", 9th at "Dairy products, eggs, honey, edible animal product nes.", " Live trees, plants, bulbs, roots, cut flowers ", etc.

**Table 6:** Total number of competitors in Central and Eastern Europe with lower rank, against Romania, in 2014 in the world's exports

Intervals on the number of competitors with lower rank than Romania	Name of the export goods groups and position (rank) underperforming Romania
Category I with weak potential of competitiveness 0-3 positions	Fish, crustaceans, molluscs, aquatic invertebrates nes. (3); Dairy products, eggs, honey, edible animal product nes. (2); Live trees, plants, bulbs, roots, cut flowers etc (2); Edible fruit, nuts, peel of citrus fruit, melons (3); Milling products, malt, starches, inulin, wheat gluten (2); Lac, gums, resins, vegetable saps and extracts nes. (3); Animal, vegetable fats and oils, cleavage products, etc (3); Cocoa and cocoa preparations (3); Cereal, flour, starch, milk preparations and products (3); Vegetable, fruit, nut, etc. food preparations (2); Miscellaneous edible preparations (3); Beverages, spirits and vinegar (1); Salt, sulphur, earth, stone, plaster, lime and cement (2); Tanning, dyeing extracts, tannins, derives, pigments etc. (2); Albuminoids, modified starches, glues, enzymes (2); Miscellaneous chemical products (3); Cork and articles of cork (0); Manufactures of plaiting material, basketwork, etc. (2); Pulp of wood, fibrous cellulosic material, waste etc. (2); Paper and paperboard, articles of pulp, paper and board (3); Wadding, felt, nonwovens, yarns, twine, cordage, etc. (3); Carpets and other textile floor coverings (3); Knitted or crocheted fabric (3); Umbrellas, walking-sticks, seat-sticks, whips, etc. (3); Stone, plaster, cement, asbestos, mica, etc. articles (1); Zinc and articles thereof (2); Other base metals, cermets, articles thereof (3); Clocks and watches and parts thereof (2); Toys, games, sports requisites (3);
Category II with medium potential of competitiveness 4-6 positions	Meat and edible meat offal (5); Products of animal origin, nes. (6); Edible vegetables and certain roots and tubers (4); Coffee, tea, mate and spices (4); Vegetable plaiting materials, vegetable products nes. (5); Sugars and sugar confectionery (4); Residues, wastes of food industry, animal fodder (5); Ores, slag and ash (5); Mineral fuels, oils, distillation products, etc. (6); Inorganic chemicals, precious metal compound, isotopes (4); Organic chemicals (4); Pharmaceutical

Intervals on the number of competitors with lower rank than Romania	Name of the export goods groups and position (rank) underperforming Romania
	products (5); Essential oils, perfumes, cosmetics, toiletries (4); Soaps, lubricants, waxes, candles, modelling pastes (6); Explosives, pyrotechnics, matches, pyrotechnics, etc. (4); Photographic or cinematographic goods (4); Plastics and articles thereof (5); Rubber and articles thereof (6); Articles of leather, animal gut, harness, travel goods (6); Furskins and artificial fur, manufactures thereof (4); Printed books, newspapers, pictures etc. (4); Cotton (6); Vegetable textile fibres nes., paper yarn, woven fabric (6); Manmade filaments (6); Impregnated, coated or laminated textile fabric (6); Ceramic products (4); Glass and glassware (4); Iron and steel (5); Copper and articles thereof (4); Nickel and articles thereof (4); Aluminium and articles thereof (5); Tin and articles thereof (5); Tools, implements, cutlery, etc. of base metal (4); Miscellaneous articles of base metal (5); Machinery, nuclear reactors, boilers, etc. (5); Electrical, electronic equipment (6); Railway, tramway locomotives, rolling stock, equipment (5); Vehicles other than railway, tramway (5); Miscellaneous manufactured articles (4);
Category III with high-potential of competitiveness 7-10 positions	Live animals (10); Cereals (9); Oil seed, oleagious fruits, grain, seed, fruit, etc., nes. (9); Meat, fish and seafood food preparations nes. (7); Tobacco and manufactured tobacco substitutes (8); Fertilizers (8); Raw hides and skins (other than furskins) and leather (8); Wood and articles of wood, wood charcoal (9); Silk (10); Wool, animal hair, horsehair yarn and fabric thereof (8); Manmade staple fibres (9); Special woven or tufted fabric, lace, tapestry etc. (8); Articles of apparel, accessories, knit or crochet (8); Articles of apparel, accessories, not knit or crochet (9); Other made textile articles, sets, worn clothing etc. (7); Footwear, gaiters and the like, parts thereof (10); Headgear and parts thereof (7); Bird skin, feathers, artificial flowers, human hair (9); Articles of iron or steel (7); Lead and articles thereof (7); Aircraft, spacecraft, and parts thereof (7); Ships, boats and other floating structures (8); Optical, photo, technical, medical, etc. apparatus (7); Musical instruments, parts and accessories (8); Furniture, lighting, signs, prefabricated buildings (7); Commodities not elsewhere specified (9);

Source: Own calculations based on International trade in goods - Exports data 2001-2015 SITC ([www.intracen.org](http://www.intracen.org))

Number of Central and Eastern Europe countries with lower rank potential of competitiveness, Romania frontloads:

- In the category with highly competitive potential, we have 10 countries at "live animals", " footwear, gaiters and the like, parts thereof ", 9 countries to "cereals", " articles of apparel, accessories, not knit or crochet", 8 countries at "fertilizers", " tobacco and manufactured tobacco substitutes ", etc.;

- the category with medium potential of competitiveness, 6 countries at " Mineral fuels, oils, distillation products, etc.", "cotton ", "electrical and electronic equipment ", etc., 5 countries at " iron and steel ", " plastics and articles thereof ", "pharmaceutical products" and 4 countries at "coffee, tea, mate and spices", "inorganic chemicals, precious metal compound, isotopes", " glass and glassware ", etc.;
- the category with of weak potential of competitiveness, no country at "cork and articles of cork", 1 country " stone, plaster, cement, asbestos, mica, etc. articles " , two countries " vegetable textile fibres nes, paper yarn, woven fabric ", "zinc and articles thereof", " salt, sulphur, earth, stone, plaster, lime and cement " , etc.

## 5. Some conclusions and final remarks

According to experts that have participated in drafting of the National Export Strategy for 2014-2020, in terms of competitiveness criteria, perspective, resilience and vulnerability, we can distinguish the following categories of export for Romania:

- *exports, as relatively strong points for Romania*, with a share of over 70% in the total export value volume, have been identified during 2007-2013 for the following groups of the CAEN code: manufacture of the motor vehicles for road transport, trailers and semi-trailers; manufacture of machinery and equipment; manufacture of electric equipment; metallurgic industry; computers, electronic and optic products; agriculture, hunting and the connected services; production of rubber and plastic products, manufacture of chemicals and chemical products; wood processing ,wood and cork manufacture except furniture; straw articles and vegetal wickerwork; manufacture of furniture.
- *sectors with significant export perspectives and opportunities* (over 8.5% share in total exports) are: industry for metallic constructions and metal products, exclusively machinery, tools and installations; food industry; manufacture of basic pharmaceutical products and pharmaceutical substances; manufacture of other non-metallic minerals products;
- *neuter sectors* with a still unclear outlook (over 6,60% share in total exports) targeting: manufacture of other means of conveyance; goods not elsewhere classified; manufacture of tobacco products;
- *sectors with potential vulnerabilities and relative weak points* (representing over 11% of the total exports) referring to: manufacture of wearing apparel; cork and refined products obtained from petroleum processing; tanning and finishing of leather; manufacture of clothes and leather articles, harness and footwear; dressing and dyeing of fur; manufacture of textile articles; other industrial activities; manufacture of paper and paper products; manufacture of beverages; production and supply of the electric and thermal energy such as: gas, hot water and air conditioning.

The evolution of Romanian export competitiveness in the post-accession period indicates a sign of competitiveness betterment supported by a larger number of won positions on the international markets in 2014 against the year 2001.

Of course the progress so far recorded in the field of competitiveness represents a necessary but not efficient convergence required by sustainable development challenges.

For a series of export products from the processing industry field, Romania has an important potential which can be used to get a better position on the competitiveness scale, deepening the inter and intra-branches specialisation (Gheorghe Zaman, Valentina Vasile, 2012)

We have in mind first of all the agricultural products, aluminium and the items thereof, animal and vegetal fats, glass and glass products, etc.

The different degree of competitiveness of the Romanian exports is conducive to the necessity of promoting smart specialization policies for certain products, semi-products and components, trying to find the so called „niches” which may offer comparative and competitive advantages mainly based on innovation, international cooperation within value chains and networking.

Due to the reduction of the export products nomenclature over the period 1990-2015, the promotion of more diversified and highly qualitative exports in Romania, including knowledge based industrialization represent a challenging milestone for both foreign direct investment companies headquartered in Romania and national firm.

Romanian exports competitiveness analysis (SITC two digits), based on the positions won/lost in the world hierarchy exports reveals that Romania fills relatively significant positions (among the top 15-20 exporters), particularly in products with relatively low processing level, in general being on foreign markets a "price-taker" rather than a "price-maker"; in 2014, as compared to 2001, Romania has won positions in the world's exports at 68 commodity groups and lost positions only at 28 groups, suggesting a favourable trend of increasing Romanian foreign trade competitiveness extremely necessary, but still insufficient to bridge the gap that separates us from the developed countries.

According to the EU Competitiveness Report on 2015, Romania belongs to the category of EU countries with modest but improving competitiveness.

Romania is a country with an emerging economy, which is characterized by a structure of export of goods marked notably by a relatively low share of high-tech groups of approx. 8% (Financial Stability Report, 2015 BNR).

If 70% of total exports in Romania are controlled by companies with foreign capital participation, it is assumed that there are premises for increasing competitiveness given the relatively high level of productivity and profitability of the subsidiaries of mother companies producing in Romania. For example, in the top 100 exporters of goods from Romania, only 4 firms have Romanian capital, the rest belong to foreign capital.

Romania's competitiveness increase in the future has the opportunity to better use the advantages of a higher EU structural funds accession in parallel with a greater contribution of a private economic sector.

The vagueness and complex character of the notion raises a lot of problems in the domain of competitiveness metrics especially if we take into consideration the heterogeneity of enterprises, at least from their size standpoint.

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