

FOREIGN TRADE AT REGIONAL LEVEL IN ROMANIA AS A TOOL IN BUILDING SMART SPECIALISATION STRATEGIES

Constantin POSTOIU

Bucharest University of Economic Studies, Romania
postoiu.constantin@gmail.com

Abstract

In the context of the new EU Cohesion Policy and Europe 2020 strategy, regions are encouraged to build their own development strategies based on specialisation and innovation. Smart specialisation strategies aim to identify and focus on those activities in which the region has comparative advantages and at the same time, are characterized by a high added value. These activities have the power to bring the greatest benefits to the local and regional economy and, thus, reduce disparities between regions and enhance overall competitiveness of European regions. This paper analyzes data on exports and imports at the county level, on sections and chapters of the Combined Nomenclature in order to identify trends of specialisation of economic activity. Moreover, this approach provides information on the competitiveness of these counties, high export rates indicating a better adaptation to international markets. Results show that the majority of counties import and, at the same time, export machinery and electrical equipment, and textiles and textile articles.

Keywords: foreign trade, Smart Specialisation Strategy, regional competitiveness

JEL Classification: F14, R12

I. INTRODUCTION

The smart specialisation concept was officially launched in 2009 when the *Knowledge for growth* expert group of the EU published a report concluding that the productivity gap between Europe and the U.S. is due to low specialisation and low capacity of regions to prioritize efforts and resources at regional level (European Commission, 2009). The group suggested that policy makers, especially at the regional level, should promote investment in domains that are complementary to existing activities, aiming to create added value and comparative advantages. The new concept called smart specialisation has gained importance and was soon included in the Europe 2020 strategy. Moreover, the establishment of research and innovation strategies for smart specialisation (RIS3) is an ex-ante conditionality for structural funds under the Cohesion Policy 2014-2020.

Specialization is a basic concept in economics, brought up by Adam Smith in 1776, who talked about the advantages of specialization and exchange. He mentioned in his book *An Inquiry into the Nature and Causes of the Wealth of Nations* that a household will not try to produce something at home if it is more advantageous to buy it already made by others. On this basis, David Ricardo stipulates in 1817 the principle of comparative advantage using the example of two goods, clothing and wine, and two countries that produce these goods under different costs.

More recently new economic geography (NEG) treats specialization in terms of centripetal (transport costs, knowledge and externalities, endogenous processes that generate increases in productivity) and centrifugal forces (cost of inputs, lower transaction costs) (Fujita et al. 2001). Krugman (1993) stated that members of the Economic and Monetary Union should take into account „the lessons of Massachusetts” anticipating that Europe approaches the degree of regional specialization of the US, as it completes the single market and monetary uniformity. He made this statement in the context in which specialized regions of the US were hit by adverse shocks precisely because the US is a highly integrated market. Regions with a high degree of specialization are vulnerable in the event of an adverse shock (such as the relocation of firms or sudden drop in market demand for that specific type of good) acting upon the core business of the region.

Among the first empirical studies that have analyzed the problem of regional specialization of economic activity are those of Molle (1996) and Brühlhart (1997). The first analyzes the EU15 regions between 1950 and 1990 and reveals a decrease of concentration and specialization of economic activity. In 1990 northwest regions from EU15 were less specialized while peripheral regions were highly specialized. The results of the second author also show that specialization has decreased between 1970 and 1980 in EU regions.

The research undertaken by Hallet (2000) highlights that, amid the transition from industry to services, European regions tend to be more similar in terms of specialization, but this result should be viewed with caution because the service sector is divided into fewer branches than industry, increasing the likelihood that multiple regions have a similar structure of the economy.

Traistaru et. all (2002) studied regional specialisation and industry concentration patterns in Bulgaria, Estonia, Hungary, Romania and Slovenia. Results show that average regional specialization has increased in Bulgaria and Romania, decreased in Estonia and has not significantly changed in Hungary and Slovenia. The study also reveals that highly specialized regions seem to perform better than low specialized regions in terms of GDP per capita.

This paper analyzes data on exports and imports at the county level, on sections and chapters of the Combined Nomenclature in order to identify the spatial characteristics of specialisation. Available data covers only less than 4 full years, hence it is difficult to assess the evolution over time of export and specialisation at county level.

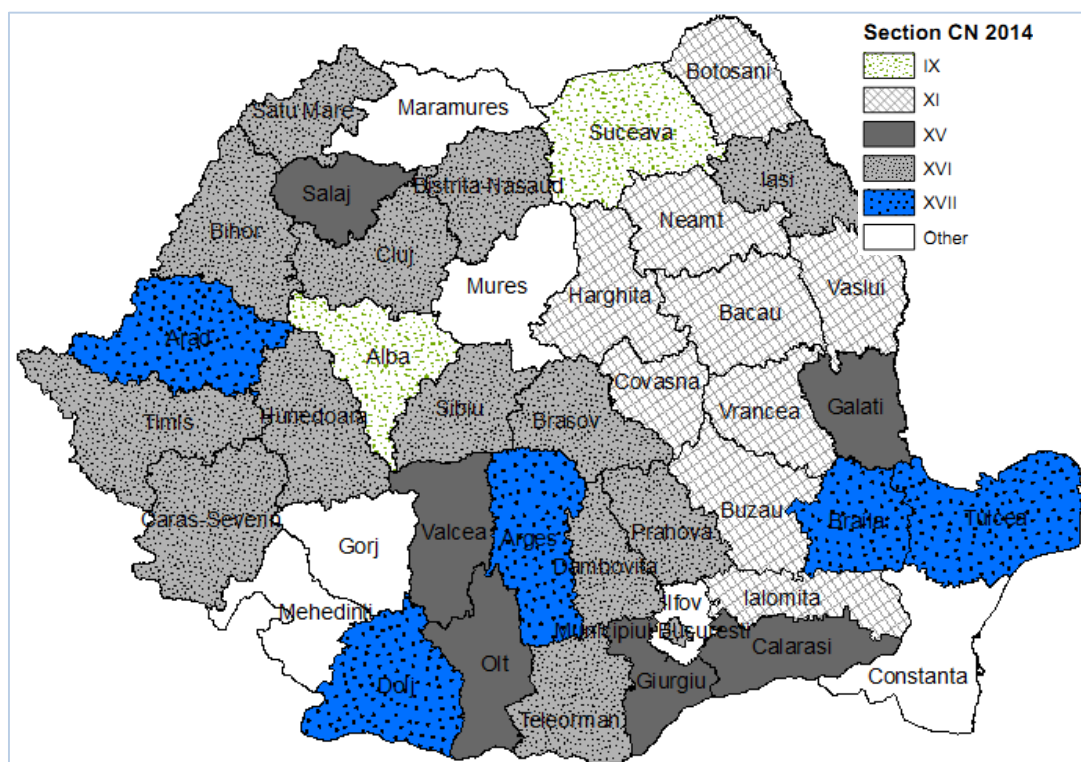
While exports may form only a small part of the whole activity, its relevance for the smart specialisation strategy is given by the fact that exports provide information on those types of activity that are competitive and better adapted to international markets. Worth mentioning is that more than 40% of exports are heading to EU developed countries (Germany, Italy, France, UK, and Austria).

The data provided by National Institute of Statistics (INS) on the import and export at county level in Romania are monthly and cover the period January 2011 - September 2014. The classification is done on sections and chapters of the Combined Nomenclature of the European Union, version 2014. Traded goods are divided in 22 sections and 99 chapters.

The raw data contains over 350,000 monthly values that were summed to determine the annual values. Then, the exports and imports values for each section and chapter were divided by the total export and import values to obtain the section or chapter share in total imports or exports for every county. Because the data stops in September 2014, the data used further in this study is for the year 2013. The choice of selecting only 2013 has to do with the fact that, for the most part, sections and chapters of goods most commonly traded with foreign countries do not change between 2011 and 2014.

II. SPECIALISATION OF EXPORTS AT COUNTY LEVEL

At the national level, in 2013, Romania’s leading exports were cars (7.53% of all exports), insulated cables (4.87%), various automotive components (11.7%), medication (1.94%) and cigarettes (1.28%), according to Eurostat, International Trade. Exports of EU member states are classified in a nomenclature called the Combined Nomenclature (abbreviated CN), used for the common external tariff and for external trade statistics.



Map 1. Leading exports at county level in Romania, 2013 (on sections of Combined Nomenclature 2014)
 Source: own graphical representation based on National Statistics Institute data

Where:

Section IX - wood and articles of wood; wood charcoal; cork and articles of cork; manufactures of straw, of esparto or of other plaiting materials; basketware and wickerwork

Section XI - textiles and textile articles

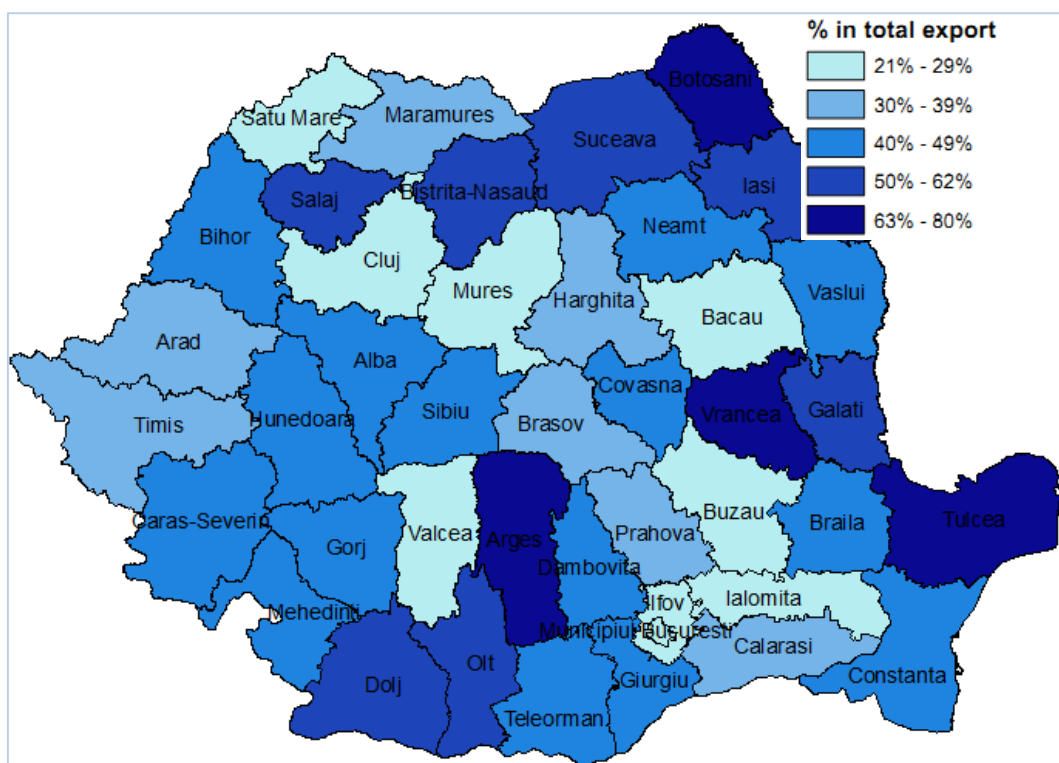
Section XV - base metals and articles of base metal

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

Section XVII - vehicles, aircraft, vessels and associated transport equipment

Map 1 illustrates the section of goods that have the biggest share in exports at county level. Machinery, mechanical appliances and electrical equipment (section XVI of CN 2014) are the most exported items in 14 counties and also at the national level. Textile industry products are the next most exported section of goods forming the leading exports in 9 counties. Heavy industry is next, with 6 counties exporting mostly base metals and articles of base metal. Transport vehicles production and export are concentrated mainly in 5 counties: Arad producing freight wagons, tank wagons and accessory components; Arges and Dolj producing cars and automotive components. Located near the Danube and the Black sea, Braila and Tulcea build and export ships, boats and floating structures.

A spatial pattern can be observed in the map. First, the counties producing machinery, mechanical appliances and electrical equipment are located primarily in the western part of the country, a region with a tradition in manufacturing (Bakk and Benedek, 2010). The textile industry is located in the less developed counties from the eastern part of the country. These factories were built mostly during the communist era to employ the labour force previously working in agriculture.



Map 2. Leading exports section as % of total exports

Source: own graphical representation based on National Statistics Institute data

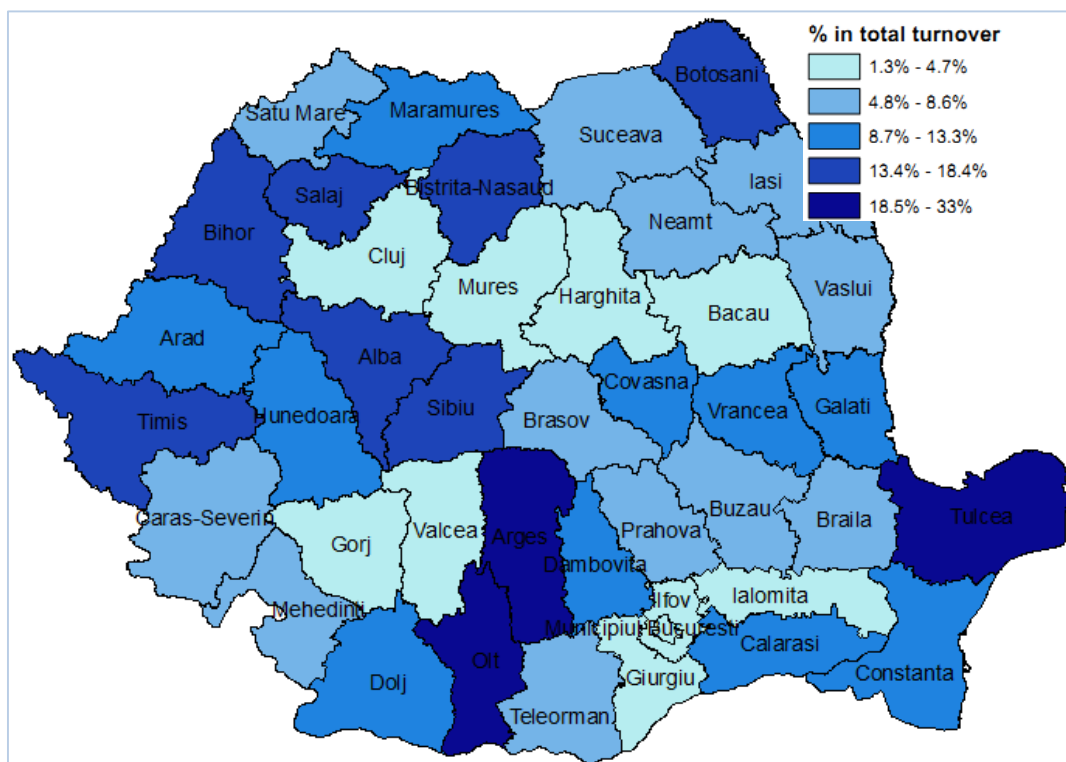
Map 2 shows how specialised are the exports in the sections illustrated in map 1. The most specialised county in terms of exports is Botosani. 80% of total exports are textiles and textile articles. The next is Vrancea exporting at a rate of 74%, also clothing. In Tulcea and Arges exports of vehicles, aircraft, vessels and associated transport equipment covers 69% and 68% out of all exports.

Among the Romanian counties, Arges accounts for the highest value of exports with more than 50% over the next county ranked (Bucharest) and ten times more than the country average. This can be explained by the fact that here is one of the largest factories in Romania: Dacia. It is the fifth largest car factory in Europe and the largest exporter in the country. These products are the county's leading exports and account for a third of the

total turnover. Arges is an example of agglomeration center where much of the economic activity is related to automobile production.

In Salaj county 63% of export are metal products. This specialization is based on a large factory of steel fittings. In a similar situation is Iasi, hosting the largest heavy equipment factory from Moldova. In the latter the total exports occupy a smaller share in total economic activity as the services sector is more developed.

Export data analysis for counties specialized in a certain field, with more than 50% share in total exports, reveals a common feature. The activity of most of these counties is a continuation of the communist period-specific mono regions. After 1990 various industrial giants were closed having a huge socio-economic impact in the region. Besides the drop in private and public incomes, it left the people specialized in that specific domain unemployed and with few chances in getting a new job.



Map 3. Leading exports section as % of turnover

Source: own graphical representation based on National Statistics Institute data

In order to assess regional specialization it is not enough to evaluate the share of exported goods. Size of economic activity varies greatly among counties. Two counties having similar percentages of goods in total exports could have very different shares of the same export of goods in the total economic activity.

Therefore analysis took into account the share of leading exports in total economic activity, expressed as the turnover in the county. The share of exports in total turnover shows not only the economic competitiveness at the county level but also its dependence on international demand. The largest share of exports in total turnover is in Arges. Half of the turnover comes from exported products, of which 68% are cars. The smallest share of exports is found in Gorj, county specialized in mining and energy production, both used within the country. Only 3% of turnover comes from exported goods.

Exports of textile products amount to 80% of total exports in Botosani but form only 18% of the total turnover of the county. Meanwhile, textile imports represented 70% of all imports (wool, cotton, synthetic fibers). Imports consist mainly of raw material while exports of finished products. The same situation is found Vaslui county, where 74% of exports are textiles. The share in total sales (represented by turnover) is lower, only 11%.

Overall, the share of exported products from a single CN 2014 section in total turnover at county level is quite low. Only in Arges county leading exports reach 33% of turnover. In Olt and Tulcea exports from one section account for 24% of turnover. Only in 10 counties the leading exports exceed 15% of turnover. In case of an international shock to affect the industry exporting the most in these counties, their overall economy would not be greatly affected.

Imports are analyzed in order to see to what extent the foreign trade of the respective county is intra-industry. If a county imports and exports goods in the same category, it shows that most likely it acts as a link in

the chain of production and / or distribution of those goods. Results show that 24 counties import and export goods belonging to same section in CN 2014. Of the 14 counties that mainly import products from the section machinery, mechanical appliances and electrical equipment 12 import the most products in the same section. Out of these 10 even in the same chapter.

In nine counties the most exported goods are textiles. For six of them, textiles also form the largest part of imports. Foreign trade of these counties show that they act as centers of textile processing. The multinational companies in this industry use cheap local workforce and imported raw materials to produce at a low cost finished products that are then exported.

III. CONCLUSION

As the smart specialisation concept gained more and more importance at policy level but also in the economic literature this study tries to assess external trade at county level, in an effort to supply valuable information about regional economic activity and specialisation patterns.

Specialization is closely related to the current economic situation but also with future growth prospects. Currently, the poorest regions (judging by the turnover) mainly export products that require low processing and have a low added value: wooden and textile products. More developed counties mainly produce and export products with a higher degree of processing, such as those from sections XVI and XVII.

Results show that most of the counties (14) are exporting mainly machinery, mechanical appliances and electrical equipment. Textile industry products are the next most exported section of goods, forming the leading exports in 9 counties. Heavy industry is next, with 6 counties exporting mostly base metals and articles of base metal. Transport vehicles production and export are concentrated in 5 counties.

A spatial pattern can be observed as the counties producing machinery, mechanical appliances and electrical equipment are located primarily in the western part of the country, a region with a tradition in manufacturing. The textile industry is located in the less developed counties from the eastern part of the country.

The results are also useful in estimating to what extent are the counties prone to adverse shocks due to high specialisation. Only a few counties are dependent on one type of activity that produces mostly for export. For instance, the economic activity in Arges county revolves around the local car manufacturer, while in Botosani the clothing factories export 80% of the total county export. In similar positions are Vrancea, Tulcea and Olt. For most other counties, even if the exports tend to be concentrated on a single industry, the share in the overall activity is small and a shock on the international markets in the leading exporting industry will not affect the county in a decisive manor.

IV. ACKNOWLEDGEMENT

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