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FOREIGN TRADE INTEREST ASYMMETRY EVALUATION OF EUROPEAN COUNTRIES

ANNOTATION

The article reviews foreign trade interests of European countries. The globalization impact on the development of international trade in European countries is considered. The influence of asymmetry on foreign trade interests of European countries is investigated. The reasons for its occurrence are analyzed.

Globalization accompanied by expansion in international trade, providing not only moving flows of goods and services, but is intended to stimulate economic development in each country. However, consumers have access to a wide selection of goods and services, and increased competition between the imported products and locally produced goods leads to better quality. In other words, globalization has brought economic benefits for all countries, including for developing countries, but a condition that made multilaterally rules will be carried out and apply measures to integrate developing countries to the world trade system. Important features of international trade and globalization are its acting contrary to the process, its regionalization, when trade flows are directed to countries united by different economic agreements. The globalization of the world economy and the deepening of the integration process (especially in Europe) extend asymmetries between countries both in macroeconomic indicators, positioning in the world, and on foreign trade interests. Each country has its own conditions of integration into the global trading space, according comparing the interests and capabilities of their implementation and taking into account their own capacities. The asymmetry of

interests creates asymmetry of trade flows, which may manifest itself in the territorial (spatial) and temporal dimension.

Our analysis confirmed the existence of significant spatial and temporal asymmetries in the distribution of European countries by exports/imports trade flows of goods and services, it means that those countries in the implementation of foreign trade follows its own interests.

Key words: globalization, international trade, European market, integration, asymmetry, export, import, cluster analysis, European Union.

Task statement. Globalization accompanied by expansion in international trade, providing not only moving flows of goods and services, but is intended to stimulate economic development in each country. However, consumers have access to a wide selection of goods and services, and increased competition between the imported products and locally produced goods leads to better quality. In other words, globalization has brought economic benefits for all countries, including developing countries, but a condition that made multilaterally rules will be carried out and apply measures to integrate developing countries to the world trade system. Important features of international trade and globalization are its acting contrary to the process, its regionalization, when trade flows are directed to countries united by different economic agreements [6].

Deployment of globalization is in some form or, in other words, globalization reflects its inherent manifestations. They are mostly "crystallized" and find their materializes in increasing the volume and diversification of international trade; international direct and portfolio investments that are increasingly being used in the system of national economic development activities; movement of labor in the entire field of the world economy; in the growing use of knowledge, technology, management, marketing, produced in more developed countries, and are used in economic systems, which are gradually converted into global economic processes. The globalization of the world economy and the deepening of the integration process (especially in Europe)

extend asymmetries between countries both in macroeconomic indicators, positioning in the world, and on foreign trade interests. Each country has its own conditions of integration into the global trading space, according comparing the interests and capabilities of their implementation and taking into account their own capacities. The asymmetry of interests creates asymmetry of trade flows, which may manifest itself in the territorial (spatial) and temporal dimension [2].

Analysis of recent research and publications. Many scientists were studying this theme such as: Joseph Stiglitz, George Akerlof, Michael Spence, Bozhydarnik N. V., Storonyanska I. Z., Vahovych I. M., Lakatosh I. M. and others. They believe that alignment of foreign interests' asymmetry is a equitable distribution result of foreign trade, affecting the socio-economic development, economic growth, human capacity development.

Problem statement. The term "asymmetry" became popular after receiving in 2001 Nobel Prize by American economists Joseph E. Stiglitz, George A. Akerlof and A. Michael Spence for developing the theory and analysis of markets with asymmetric information.

Asymmetry of foreign interests proposes to determine how the heterogeneity of national space that appears in the interests of different vectors in international trade affects the differences in their economic and human development. To overcome the asymmetry of the distribution of trade flows in Europe, as elsewhere in the world, is impossible because of interest's disparity in conducting foreign trade policy.

The internationalization of world economic life caused deepening trade relations and the liberalization of goods movement. 2008 proved to be disastrous for world trade, as countries struggled to maintain traditional markets and reduce trade volumes; these trends have affected both world exports and imports (Fig. 1).

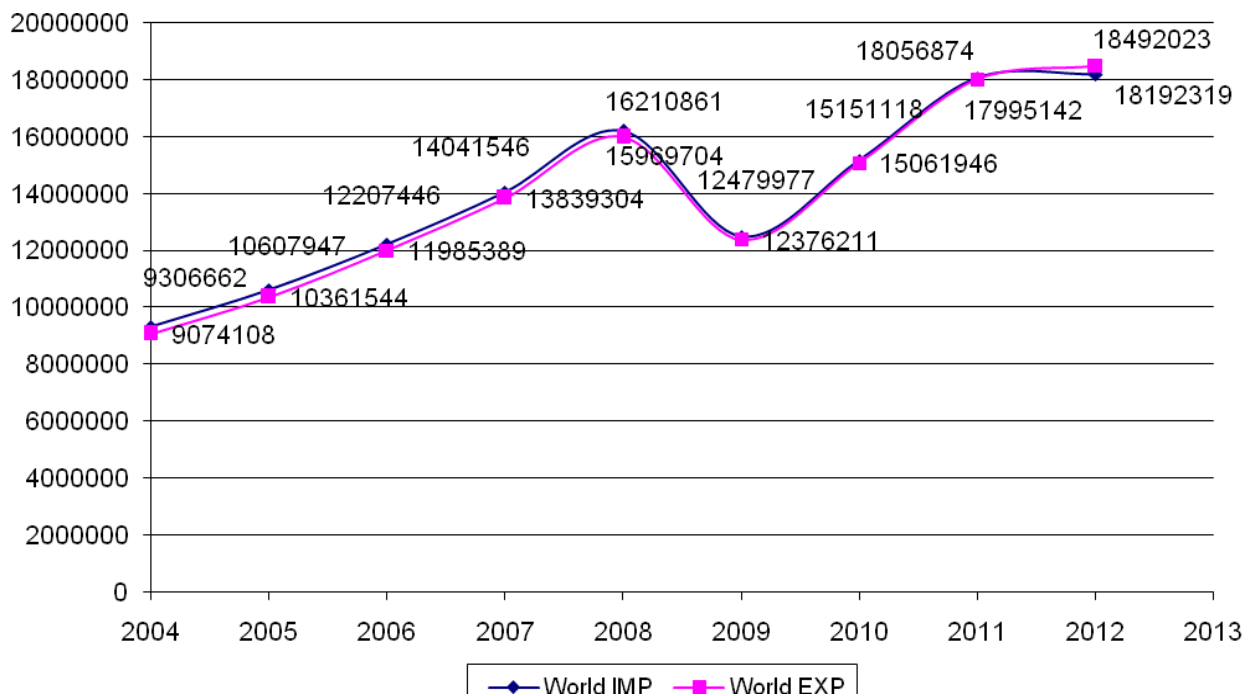


Figure 1. World exports dynamics of goods and services (mil. \$ US) [7]

Today in the world is formed three major centers of trade: Europe, Asia-Pacific region and North America, however, due to the instability in the financial, economic and trade areas in some European countries, such as in Greece, there was a share's reduction of European countries trade in the world trade.

The European Union, which accounts for 20% of global imports and exports, has the highest turnover in the world. Open trade between Member States was the basis of its creation nearly 50 years ago and led to the welfare of all member states. The European Union, therefore, plays a leading role in efforts to provide equal access to world markets of both rich and poor countries.

Consequently, the European Union is negotiating with its partners to ensure market access of both goods and services. EU aims to assist developing countries, providing them with accelerated access to its market, but on the other hand, taking them more time to open the access of European goods to the markets of these countries. At the same time, the EU is reforming its agricultural policy, which will also have positive implications for developing countries.

The EU is an active supporter of the World Trade Organization (WTO), which established a set of rules designed to promote the opening of global markets and ensure

fair treatment of all participants. Despite the perceived need to improve the system, it provides a degree of legal certainty and transparency for international trade. WTO also establishes a procedure for settling disputes as between two or more trading partners there are direct differences. The EU has become a major player in the successive rounds of multilateral negotiations on access to the world market.

Trade rules are multilateral, but trade itself – two-way process: between buyers and sellers, exporters and importers. That is why the EU has developed a system of bilateral trade agreements with individual countries and regions around the world. Enlargement of the EU-15, held in 2004, as a result of which the number of its members was 25, adds weight as a trading partner, particularly in relations with neighboring countries in Eastern Europe and the Mediterranean Basin.

EU trade policy is closely linked to development policy. As soon as the European Union assumes its share of responsibility to help developing countries to eradicate poverty and integrate into the global economy, these policies are merging.

Long time ago the EU has recognized the fact that trade can stimulate economic growth and productive capacity of poor countries. Back in early 1971, the EU began to reduce and eliminate tariffs and import quotas on goods imported from developing countries, for "the general system of preferences" (GSP). Moreover, in the framework of the "Everything but Arms", launched in 2001, the European Union provides 49 least developed countries free access to the EU market of all their products, except weapons.

The special relationship in trade and assistance between the EU and the 78-th Partners in Africa, Caribbean Basin and Pacific region (ACP countries) were established in 1975 and is considered an example of how rich countries can help the poor.

Approximately half of the funds allocated to help poor countries come from the European Union or its individual member states, making the EU one of the largest financial donors. The promotion is not only drinking water and the construction of new roads, though that is important. It also provides assistance to developing countries, improving the efficiency of their trading activities by providing more open access to the EU market. Such assistance will allow them to develop and strengthen relations and

foreign trade, so take advantage of globalization.

Not all countries have made progress in this direction. Although Africa, Caribbean Basin and Pacific region (ACP) have a special relationship with the European Union, their share of the EU market continues to decline, while their isolation in world trade increases.

Therefore, the EU development strategy also aims to help poor countries to improve their infrastructure, productive capacity and improve the efficiency of public authorities and institutions. Thanks to this help, some countries will be able to take advantage of opportunities in trade and attract more inward investment to expand their economic base. This is essential, because it gives such countries to integrate into the global economy and ensure its sustainable growth and development.

The European Union in a new way combine trade and aid in the next generation of "economic partnership agreements", that now are discussing with the ACP countries and entered into force in 2008. The idea is to help ACP countries integrate with their regional neighbors as a step towards further global integration, and assist them in the development of institutional capacity and applying the good governance principles. At the same time, the EU will continue to open their markets to products of ACP and other developing countries [3].

The European Union and its Member States provide developing countries, more than 30 billion Euros per year of official development assistance, about 6 billion Euros which passes through the EU institutions. Although EU members, like other industrialized countries agreed to allocate each year to help developing countries 0.7% of their GDP, only Denmark, Luxembourg, the Netherlands and Sweden have executed this indicator. Other countries have pledged to catch up. The average rate of aid granted by EU is 0.34% – this indicator is higher than the aid provided by the United States or Japan [1].

The European Union has a network of association, cooperation agreements and trade agreements, involving almost all the countries over the world, from its nearest neighbors in Europe to its most distant partners in Asia and the Pacific region. To

manage these relationships, the EU holds with its major partners summits or ministerial.

The most intense EU relations are with four western European neighbors: Switzerland, Norway, Iceland and Liechtenstein. All are members of the European Free Trade Association (EFTA), which brought their legislation into line with much of the legislation on the EU internal market and follow the EU in other policy areas. All of these countries except Switzerland participate, the European Economic Area (EEA) along with the EU [4].

Let us make a comparative evaluation of dynamic structural changes derived by determining the performance of integrated structural changes in European countries' exports and imports. We used the following indicators:

- Integral factor of structural changes (Hatyev index),

$$K_d = \sqrt{\frac{\sum (d_{1i} - d_{0i})^2}{\sum d_{1i}^2 + \sum d_{0i}^2}}$$

- Salai index,

$$I_C = \sqrt{\frac{\sum \left(\frac{d_{1i} - d_{0i}}{d_{1i} + d_{0i}} \right)^2}{n}}$$

- V. Ryabtsev index,

$$I_R = \sqrt{\frac{\sum (d_{1i} - d_{0i})^2}{\sum (d_{1i} + d_{0i})^2}},$$

where d_{1i} and d_{0i} are comparative structural components; n is number of structural gradation (member countries).

The values of these indices range from zero to one. The lowest index value of structural change means complete identity comparable structures. Nearer the index is to the one, the greater the difference in the structure of totality (see table 1).

The calculated values of exports/imports structural changes in European countries based on 2010-2011 yy.

Indicator	Value Score	
	Export volume	Import volume
Hatyev index	0,0531	0,1612
Salai index	0,1676	0,1419
Ryabtsev index	0,0374	0,0132

The resulting indices of structural changes in European countries (based on 2010-2011 yy.) export volume show a very low level of structural differences. Structure of imports in European countries has undergone changes that are more substantial. It is characterized by a low level of differences.

We made a comparative analysis of the import flows distribution in Europe by using import volume index. In 2003 (see figure 2) were the most numerous group of countries (more than 16), which account for import volume index of 100 to 120. Other groups are combined maximum of eight countries. There were only two countries such as Moldova and Serbia which import volume index exceeded 200 [7].

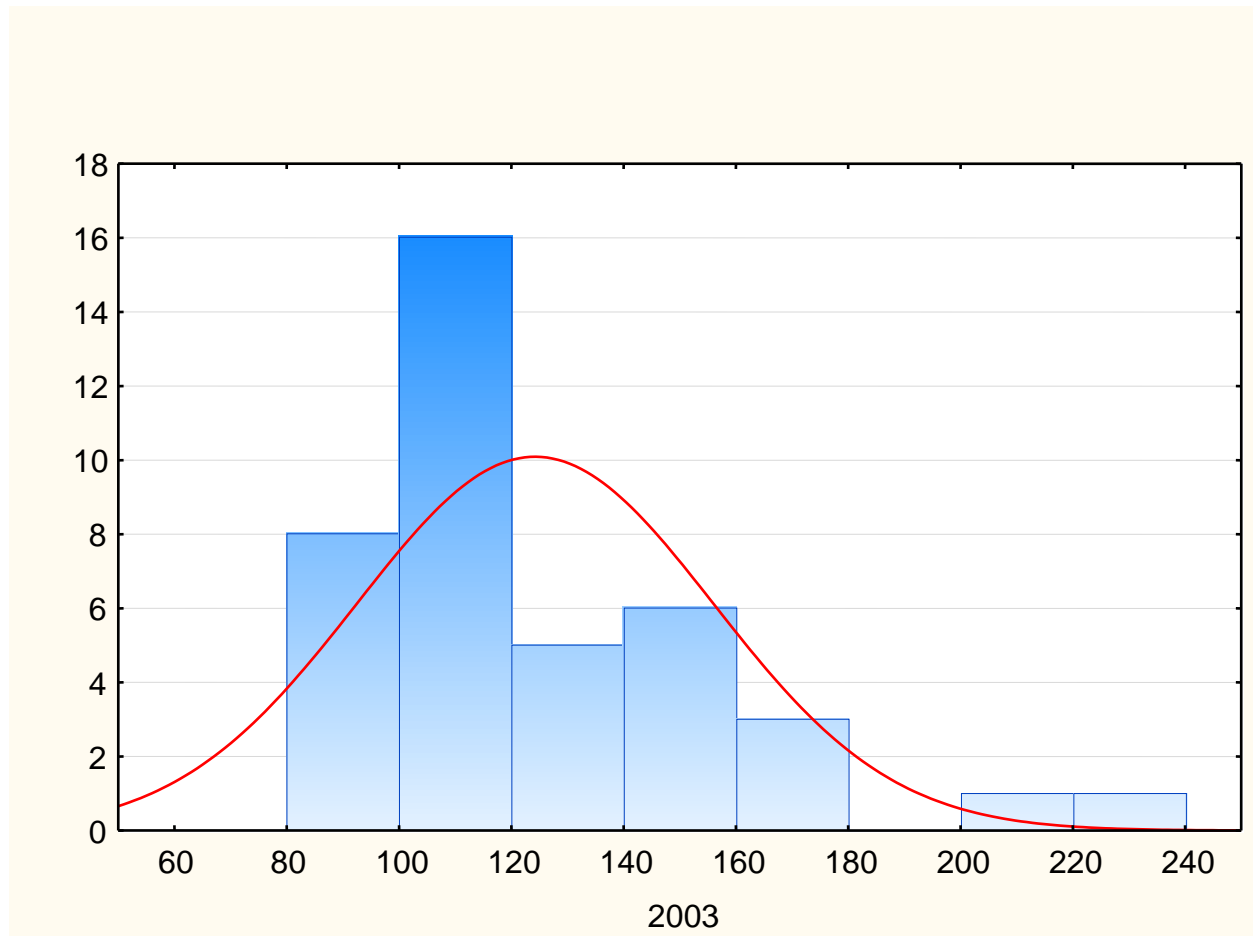


Figure 2. Import flow distribution of goods and services in European countries in 2003.

Since 2004 and in 2013 there were changes in the volume of imports, which confirmed by gradual rise of asymmetry coefficients and kurtosis. Since 2006 year no import volume index fell below 100, instead appeared countries with import volume index more than 300 (Romania, Serbia, Russia). The asymmetry of spatial import flow distribution in European countries grew in the following years. By analysis of figure 3 can be concluded that the emergence of new leaders importers of selected countries in comparison with 2003 have increased their dependence on imports, including Russia, Moldova (about 4 times), while the developed countries of Europe continue to maintain a steady trend of dependence and also are a group of countries whose import volume index ranging 100-150 (Austria, Belgium, Denmark, Germany, etc.).

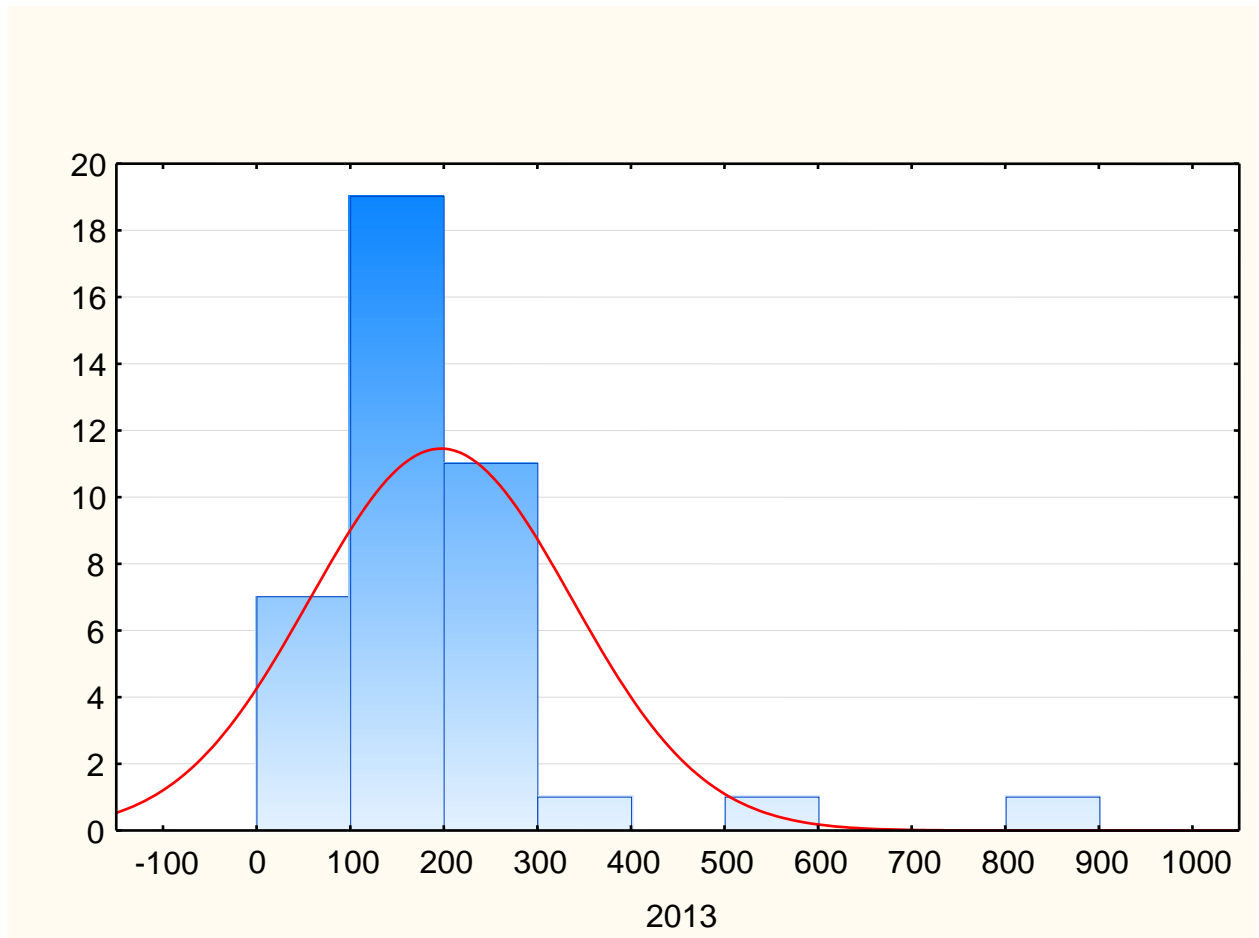


Figure 3. Import flow distribution of goods and services in European countries in 2013

Using cluster analysis, we group the European countries in terms of goods and services, using the method of k-means on the software STATISTICA 8.0. Non-hierarchical clustering algorithm (separation of elements in a set of clusters), where k-means: choosing arbitrary initial center-points in space (centroids). Further, all objects are sorted in-group by proximity distance from the centroid. Thus was obtained four clusters of imports (see figure 4). The first cluster contains two countries (Russia and Moldova); second – 8 countries (here including Ukraine); third – 9 countries; fourth – 21 countries.

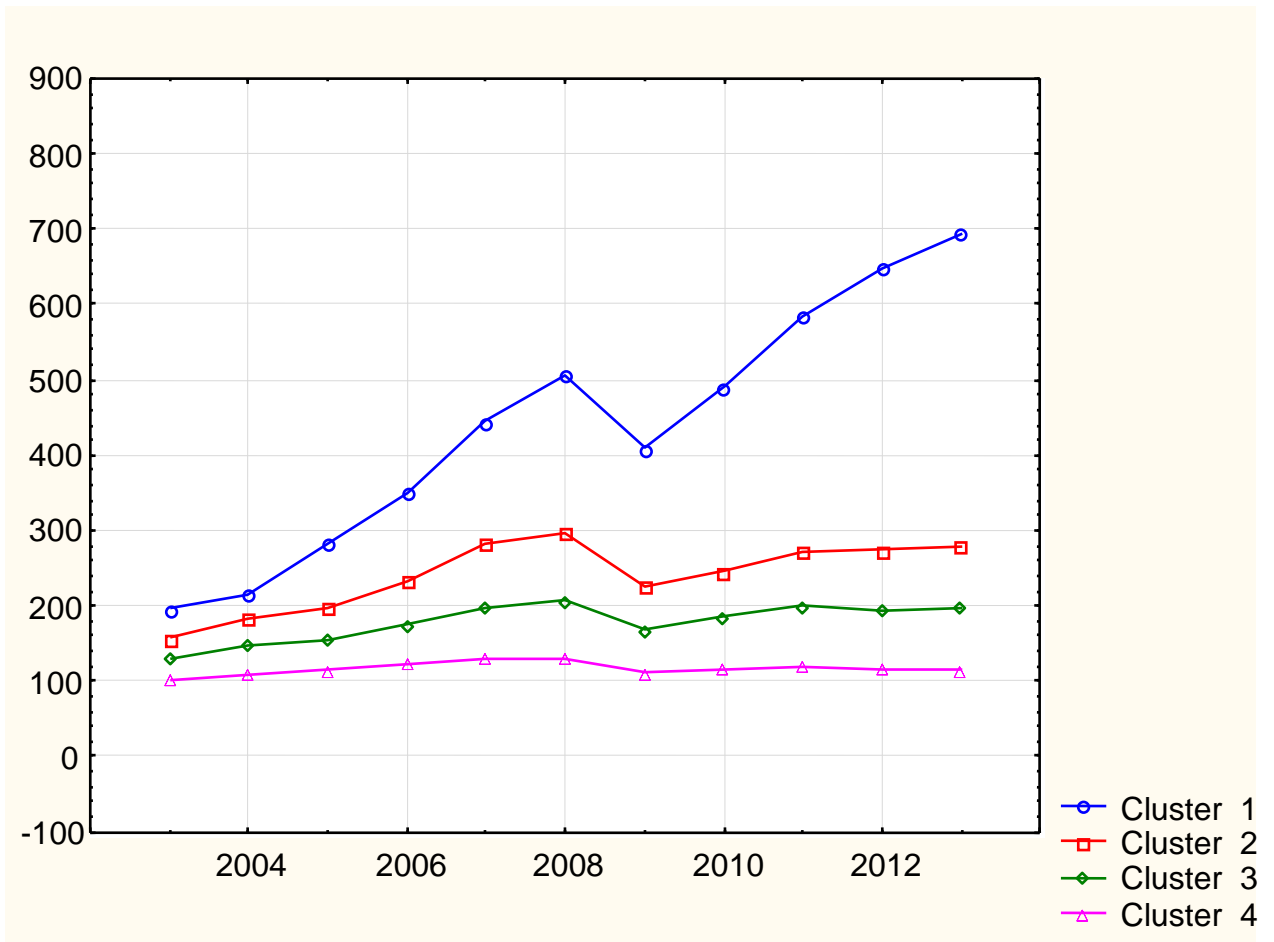


Figure 4. Import mean values of goods and services for each cluster in European countries

European countries distribution by exports value of goods and services through cluster analysis made it possible to generate 4 clusters (see figure 5), among which the export potential first released, which included 9 countries – Latvia, Lithuania, Poland, Slovakia, Serbia, Turkey, Albania, Moldova, Bosnia and Herzegovina. Ukraine became the second cluster, which formed 11 countries, including the Czech Republic, Estonia, Switzerland, Bulgaria, Belarus and others. The low level of exports flows has countries of 4-th cluster, which included nine European countries: United Kingdom, Ireland, Italy, Cyprus, Malta, Finland, France, Sweden and Norway [5].

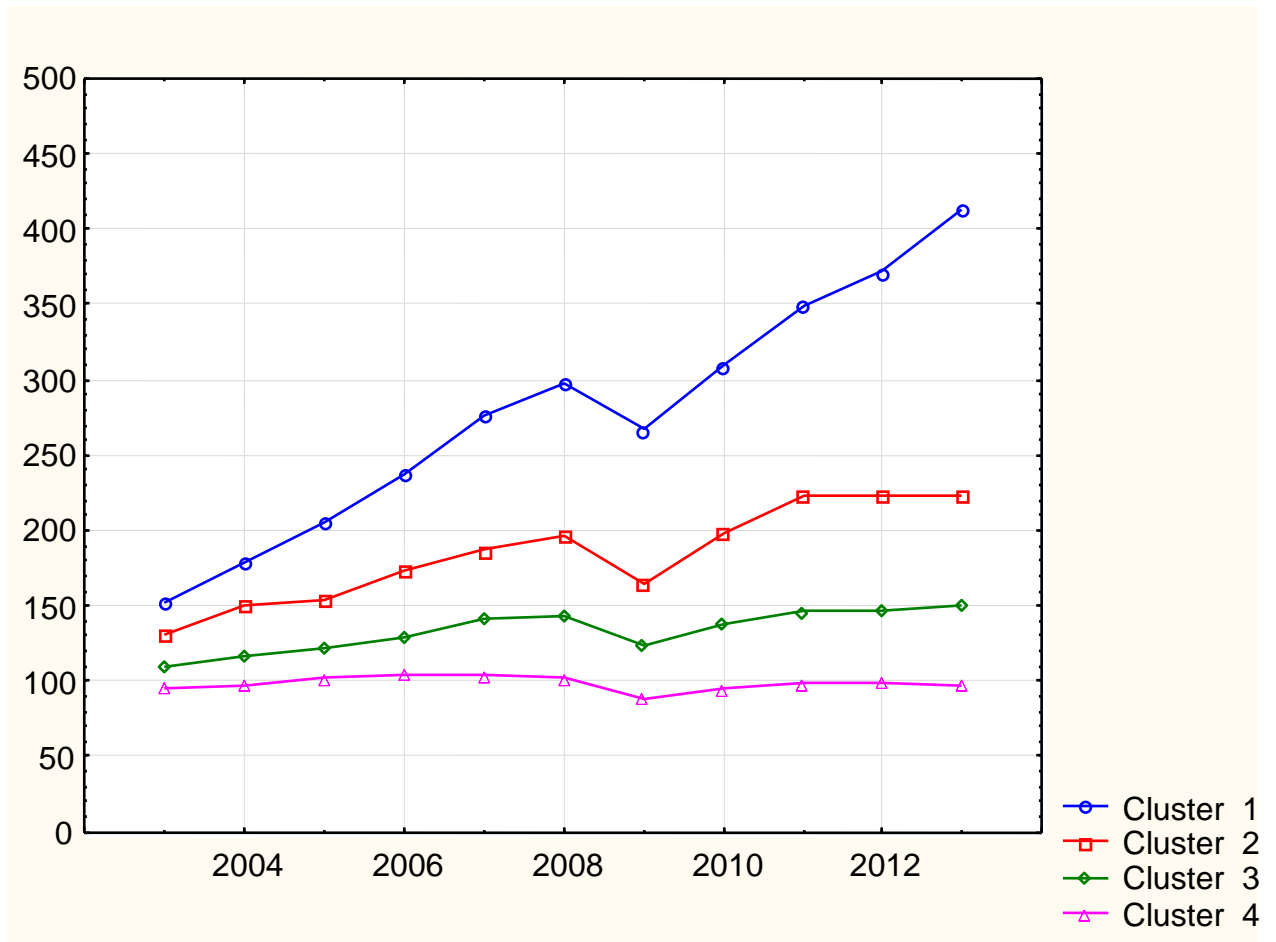


Figure 5. Export mean values of goods and services for each cluster in European countries

To sum it up, cluster analysis confirms that the respective clusters hit European countries with roughly equal imports distribution of goods and services.

Conclusions. Thus, the analysis confirmed the existence of significant spatial and temporal asymmetries in the distribution of European countries by exports/imports trade flows of goods and services, it means that those countries in the implementation of foreign trade follows its own interests. However, among the countries close out the characteristics of the European Union, which became a member in the early stages of the EU. Other countries are characterized by unstable structure and dynamics of foreign trade, changes accordingly their participation in world trade.

By carrying out a comparative evaluation of dynamic structural changes derived by determining the performance of integrated structural changes (index Hatyeva, index

Salai, index V. Riabtseva), we determined that the indices of structural changes in European countries (2010-2011 yy.) exports show a very low level of structural differences. Structure of imports flows in European countries has undergone changes that are more substantial. It is characterized by a low level of differences.

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ОЦІНКА АСИМЕТРІЇ ЗОВНІШНЬОТОРГОВЕЛЬНИХ ІНТЕРЕСІВ КРАЇН ЄВРОПИ

У статті розглянуті зовнішньоторговельні інтереси країн Європи. Визначено вплив глобалізації на розвиток міжнародної торгівлі в європейських країнах. Досліджено вплив асиметрії на зовнішньоторговельні інтереси країн Європи. Проаналізовано причини її виникнення.

Ключові слова: глобалізація, міжнародна торгівля, європейський ринок, інтеграція, асиметрія, експорт, імпорт, кластерний аналіз, Європейський союз.

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ОЦЕНКА АСИММЕТРИИ ВНЕШНЕТОРГОВЫХ ИНТЕРЕСОВ СТРАН ЕВРОПЫ

В статье рассмотрены внешнеторговые интересы стран Европы. Определено влияние глобализации на развитие международной торговли в европейских странах. Исследовано влияние асимметрии на внешнеторговые интересы стран Европы. Проанализированы причины ее возникновения.

Ключевые слова: глобализация, международная торговля, европейский рынок, интеграция, асимметрия, экспорт, импорт, кластерный анализ, Европейский союз.