

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Economics**



**Master's Thesis**

**Mutual trade of state members of the Eurasian  
Economic Union**

**Mezhenina Radmila**

**© 2022 CZU Prague**



# CZECH UNIVERSITY OF LIFE SCIENCES PRAGUE

Faculty of Economics and Management

## DIPLOMA THESIS ASSIGNMENT

Radmila Mezhenina

Economics and Management  
Economics and Management

Thesis title

**Mutual trade of state members of the Eurasian Economic Union**

---

### Objectives of thesis

This thesis deals with the theory of economic integration, concretely then the economic integration of state-member EAEU. The first aim of the thesis is to provide an understanding of the theory of economic integration and its degrees and to provide a clear overview of the economic integration of EAEU, its establishment and development. The second aim of the thesis is to analyze the mutual trade between state member of EAEU in years 2015-2020.

### Methodology

In this thesis, descriptive and comparative methods of research and investigation will be used. The theoretical part is understanding of the establishment and historical development of the economic integration of EAEU. The practical part has focused on the mutual trade between EAEU state-members as an economic integration.

**The proposed extent of the thesis**

60 – 80 Pages

**Keywords**

Eurasian Economic Union, integration, trade, export, import

---

**Recommended information sources**

- Kashirkina A.A. International legal models of European Union and Customs Union: comparative analysis: / Kashirkina A.A., Morozov A.N.; ed. by Kapustin A.Ya. – MOSCOW: CONTRACT. 2012. ISBN 978-5-98209-129-1
- Shabalina E. I. I., Kharitonenko A. I. Regulation of Integration Development of the Regions of the Eurasian Economic Community // Problems of Economics and Management. – 2016. – №5.1. ISBN 978-985-582-221
- Shishkov Y.V. Integration processes on the threshold of the XXI century. Why the CIS countries do not integrate. – Moscow, NP "III Millennium", 2001. ISBN 5-93632-003-0
- 

**Expected date of thesis defence**

2021/22 SS – FEM

**The Diploma Thesis Supervisor**

prof. Ing. Mansoor Maitah, Ph.D. et Ph.D.

**Supervising department**

Department of Economics

Electronic approval: 25. 3. 2022

**prof. Ing. Miroslav Svatoš, CSc.**

Head of department

Electronic approval: 28. 3. 2022

**doc. Ing. Tomáš Šubrt, Ph.D.**

Dean

Prague on 30. 03. 2022

---

### **Declaration**

I declare that I have worked on my master's thesis titled "Mutual trade of state members of the Eurasian Economic Union" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the master's thesis, I declare that the thesis does not break any copyrights.

In Prague on 31.03.2022

---

### **Acknowledgement**

I would like to thank prof. Ing. Mansoor Maitah Ph.D. et Ph.D. for all his help, recommendations and professional opinions during completing my thesis. I would like to thank my family and friends for supporting me during this challenging experience

# Mutual trade of state members of the Eurasian Economic Union

## Abstract

This is a work about mutual trade between the countries of Kazakhstan, Russia, Belarus, Kyrgyzstan and Armenia. I studied the Eurasian Economic Union, which consists of these five countries, from all the angles. Trade is an integral part of the economy, and such unions contribute to its development and facilitate trade turnover between countries. In the first part of my work, I studied the prerequisites for the creation of the union and the development of the economic union till present time. Studying this union, I was able to identify all the positive and negative sides and made a conclusion about the prospects. In history we know many unions that created to improve trade turnover, respectively economic growth. One of the largest unions is the European Union, and Europe consists of advanced countries. And the countries of the Eurasian Economic Union are also striving to boost their economy so that it does not remain at the stagnation level. Based on the information found on the trade turnover of the Eurasian Economic Union and the GDP of the participating countries in the years 2010-2021, a regression analysis was carried out. Such unions are a huge step towards real economic integration, which stimulates the growth of national economies, revealing the potential of their interaction.

**Keywords:** Eurasian Economic Union, integration, trade, export, import

# Vzájemný obchod státních členů Euroasijské hospodářské unie

## Abstrakt

Jedná se o práci o vzájemném obchodu mezi zeměmi Kazachstánu, Ruska, Běloruska, Kyrgyzstánu a Arménie. Studoval jsem Euroasijskou hospodářskou unii, která se skládá z těchto pěti zemí, ze všech úhlů. Obchod je nedílnou součástí ekonomiky a tyto odbory přispívají k jejímu rozvoji a usnadňují obchodní obrat mezi zeměmi. V první části své práce jsem studoval předpoklady pro vznik unie a rozvoj hospodářské unie až do současnosti. Při studiu této unie jsem byl schopen identifikovat všechny pozitivní a negativní stránky a učinit závěr o vyhlídkách. V historii známe mnoho odborů, které vznikly za účelem zlepšení obchodního obratu, respektive hospodářského růstu. Jedním z největších odborů je Evropská unie a Evropa se skládá z vyspělých zemí. A země Euroasijské hospodářské unie se také snaží posílit svou ekonomiku tak, aby nezůstala na stagnační úrovni. Na základě zjištěných informací o obchodním obratu Euroasijské hospodářské unie a HDP zúčastněných zemí v letech 2010-2021 byla provedena regresní analýza. Takové odbory jsou obrovským krokem k reálné ekonomické integraci, která stimuluje růst národních ekonomik a odhaluje potenciál jejich interakce.

**Klíčová slova:** Euroasijská hospodářská unie, integrace, obchod, export, import



# Table of content

<b>Introduction.....</b>	<b>13</b>
<b>Objectives and Methodology.....</b>	<b>14</b>
2.1 Objectives .....	14
2.2 Methodology.....	14
<b>Literature Review.....</b>	<b>15</b>
3.1 Foreign trade overview.....	15
3.1.1 International trade organizations .....	17
3.1.2 Theories of international trade .....	20
3.2 EAEU overview .....	24
3.2.1 History of EAEU .....	27
3.2.2 Creation of the EAEU.....	28
3.3 Economic development of the EAEU .....	32
3.4 Econometric analysis .....	35
<b>Practical Part.....</b>	<b>37</b>
4.1 Structure of EAEU countries trade before the creation of EAEU .....	37
4.1.1 Foreign trade .....	37
4.1.2 Mutual trade .....	42
4.2 Structure of the EAEU' trade .....	45
4.2.1 Foreign trade.....	51
4.2.2 Mutual trade.....	54
4.3 Regression model.....	59
4.3.1 One-Equation Model .....	59
4.3.2 Data Set.....	60
4.3.2 Correlation Matrix .....	60
4.3.3 Parameter Estimation using OLSM in SW Gretl.....	62
4.3.4 Economic verification.....	63
4.3.5 Statistical verification .....	63
4.4 Steps to overcome consequences .....	67
4.4.1 Assessing prospects for the development of the EAEU .....	67
4.4.2 The problems and risks .....	72
4.4.3 Prognoses of future trade .....	76
<b>Results and Discussion .....</b>	<b>78</b>
<b>Conclusion .....</b>	<b>80</b>
<b>References.....</b>	<b>82</b>

## **List of graphs**

- Graph 1 – Distribution of volumes of foreign trade in goods of EAEU member states with third countries, 2011 and 2015, %
- Graph 2 – Distribution of the volume of foreign trade in goods of EAEU member states by main trading partners, 2015 (Billion U.S. dollars)
- Graph 3 - The commodity structure of exports of EAEU member countries in foreign trade with third countries, 2015 (in %).
- Graph 4 - The commodity structure of imports of EAEU member countries in foreign trade with third countries, 2015(in %)
- Graph 5 - Structure of mutual trade of the EAEU countries, 2015 (in %)
- Graph 6- The trade balance of the EAEU for 2015-2020. (in billion U.S. dollars)
- Graph 7- The volume of trade of the EAEU for 2015-2020. (in billion U.S. dollars)
- Graph 8 - EAEU Exports and Imports for 2015-2020 (in billion U.S. dollars)
- Graph 9- Distribution of the volume of foreign trade of the EAEU member states by groups of countries for 2020 (billions of US dollars / share of a group of countries, %)
- Graph 10 – Volume of exports in mutual trade of EAEU member states 2010-2020(million. U.S. dollars)
- Graph 11 – Share in mutual trade of EAEU in 2020 (in %)

## **List of figures**

- Figure 1- Breusch-Pagan test for heteroscedasticity
- Figure 1 – Autocorrelation
- Figure 3 – Confidence intervals

## **List of tables**

- Table 1: Volumes of foreign trade in goods of EAEU member states with third countries 2011-2015 (billion U.S. dollars)
- Table 2 - Volume of mutual trade between EAEU countries (million U.S. dollars)
- Table 3-The import duty distribution system in the EAEU (in %)
- Table 4- Maximum tax rates in EAEU member states (in %)
- Table 5- Comparison of business conditions in the EAEU countries

Table 6- Volume of exports in mutual trade of EAEU member states 2015-2020 (million U.S. dollars)

Table 7- Data set for one equation model (billion U. S. dollars)

Table 8- Correlation matrix for original data set

Table 9- Adjusted correlation matrix

Table 20- Model 1: OLS, using observation 2010-2021

Table 11-12 -Trade turnover

Table 13- t-value

Table 14 - Assessment of additional economic effects because of integration cooperation of EAEU member countries by 2030 (in %)

## **List of abbreviations**

AIFC Astana International Financial Center

APEC Asia-Pacific Economic Cooperation, APEC

ASEAN Association of Southeast Asian Nations

BRICS Brazil, Russia, India, China, South Africa

CES Common Economic Space

CIS Commonwealth of Independent States

CM Common Market

CU Custom Union

EAEU Eurasian Economic Union

EEC Eurasian Economic Commission

EU European Union

EurAsEC Eurasian Economic Community

FDI Foreign Direct Investment

FEC Fuel and Energy Complex

FEZ Free economic zone

FTA Free Trade Agreement

FTZ Free Trade Zone

GDP Gross Domestic Product

GDP Gross domestic product

ICC International Chamber of Commerce

IEC Interstate Economic Committee

MFCA Material flow cost accounting

NATO North Atlantic Treaty Organization

OPEC The Organization of the Petroleum Exporting Countries

U.S. United States

WTO World Trade Organization

## **Introduction**

The role and importance of integration associations is increasing throughout the world economy and it is becoming very important to understand the impact of such unions on the participating countries. Trade is one of the most important functions of any State. Indicators of the quality and quantity of trade operations at the state level are imports, exports, their balance, total turnover, which are indicators of the state of the country's economy, its competitiveness in the world market. With the help of these indicators, it is possible to understand which product or product group is key for the country, to identify the trading partners of each state. The nature and degree of integration of the member countries of the economic union largely depends on the volume of mutual and foreign trade.

In the modern world, there are several large regional integration unions and associations – the EU, ASEAN, CIS and some others, which differ markedly in the level of merging of national economies and unification of the regulatory framework. Participation in the international division of labour within an integration association is implemented by its member States, as a rule, more intensively and productively than with the rest of the world, although this often goes against the process of globalization in a certain sense. The most relevant integration association in the post-Soviet space is the Eurasian Economic Union. In connection with the above, it is relevant to analyse the trade relations of the EAEU member states within the union and with third countries to determine the strength of trade relations between states.

The practical significance of this work is that the data obtained through this study can be used to understand the level of integration between the EAEU member states

# **Objectives and Methodology**

## **2.1 Objectives**

This thesis deals with the theory of economic integration, concretely then the economic integration of state-member EAEU. The first the aim of the thesis is to provide an understanding of the theory of economic integration and its degrees and to provide a clear overview of the economic integration of EAEU, its establishment and development. Next to providing the overview, the second and main aim of the thesis is to analyze the mutual trade between state member of EAEU. The goal is to determine how the mutual trade develop between EAEU state members, future, risks, and problems.

## **2.2 Methodology**

In this thesis, the descriptive and comparative methods of research and investigation has been used.

The theoretical part is understanding of the establishment and historical development of the economic integration of EAEU. Has used available publications by different experts in the given area as well as articles and information published by EAEU and other resources, such as internet sources.

The practical part has focused on the mutual trade between EAEU state-members as an economic integration. Firstly, has analyzed the situation mutual trade between EAEU state-members and then based on this data the author has created a prediction of the future structure and development. Trend analysis served as the main tool used in the practical part and the author used it to analyze the risks and problems, and predict the future development of the trade between EAEU state members.

Regression analysis refers to the econometric method that calculates the estimated relationship between a dependent variable and one or more independent variables. This method will be used to test the assumption of GDP of Kazakhstan, Russia, Belarus, Armenia, Kyrgyzstan to trade turnover between the EAEU member states. The analysis will be based on the data of 12 observations in the period 2010-2021 and processed via the Gretl application.

# Literature Review

## 3.1 Foreign trade overview

Globalization is usually referred to as the process of increasing economic interdependence of the countries of the world due to the ever-closer integration of their national markets of goods, services and capital. The development of international trade and the growth of foreign investment are the main components of this process, which also includes the development of scientific, technical and cultural cooperation between countries, the development of international tourism and many other aspects of the rapprochement of peoples of different countries. The process of globalization began after the Second World War and accelerated significantly since the mid-1980s. Two main groups of factors contributed to the development of this process.

On the one hand, these are new technical achievements that have reduced the cost of international transportation, communications and financial settlements so much that it has become possible and even profitable for many firms to locate their units in different countries. On the other hand, this is an increasing liberalization of the markets of goods, services and capital of many countries, i.e. the rejection by their Governments of the policy of protecting their producers from foreign competition through import duties. Such a protective policy was widespread in the world back in the 1960s and 1970s, but it was used much less frequently in the 1980s and 1990s.

According to international analysts, globalization has been one of the most important factors of rapid economic growth in Asian countries such as Hong Kong (China), South Korea and Singapore. However, not all developing countries have been able to benefit equally from the globalization process. It can be said that the process of accession of developing countries to world markets has been rather slow, except for Asian countries and several other Latin American countries. The share of sub-Saharan Africa in total world trade has been steadily declining since the 1960s, and the share of oil exporting countries declined sharply with the fall in world oil prices in the early 1980s. In addition, those developing countries that managed to actively engage in the process of globalization of the world economy, as a result, not only received significant economic benefits, but also faced new difficulties and problems. It is not surprising that the question of the advantages and disadvantages of the globalization process from the point of view of the interests of individual countries, as well

as the world economy, has become almost the main issue of all economic discussions in our time.

The main advantages of "free", i.e. minimally bound by state restrictions, international trade stem from the simplification of the entry of national producers into the world markets of goods, services and capital. As a result, the economy of each individual country, on the one hand, receives certain benefits from participation in the global system of division of labor, and on the other hand, it falls into the conditions of more intense competition prevailing in world markets. Participation in the global division of labor allows national producers to specialize in those industries for the development of which the country has the most favorable conditions, and increased competition from foreign manufacturers makes them strive to improve product quality and reduce production costs. All this ultimately leads to an increase in the efficiency of the economies of countries committed to a free trade policy, and consumers in these countries get access to a wider range of goods and services, both domestic and imported, at relatively lower prices. In addition, countries that actively participate in international trade benefit from the so-called overflow of the latest technologies from the economies of their trading partners, for example by introducing new knowledge embodied in imported machinery and equipment. Such an overflow of technologies is especially important for developing countries, which as a result have the potential to overcome their technological lag the most developed countries of the world. The former socialist countries, in the past artificially, for political reasons, largely isolated from the countries with market economies, now seek to make up for the lost benefits from trade with all countries of the world without exception.

However, accelerated integration with world markets is fraught with some dangers, primarily associated with the entry of national producers into conditions of unusually intense competition. As a result, the least competitive and least "flexible" producers or even entire branches of national production risk not being able to withstand competition and going bankrupt. Meanwhile, the state cannot always afford to rely on imports of goods of strategic importance. For example, many Governments are seriously concerned about the problem of maintaining the food security of their countries, in case the supply of imported food stops or decreases in a military conflict.

Over the past decade, the share of trade between developed and developing countries in the total volume of world trade has gradually increased — from 20% in 1985 to 22% in 1995. Developed countries still trade mainly among themselves, but for developing countries



they have been and remain the most important trading partners, the most profitable markets for their export products and the best source of imported products they need. However, during the 1980s and 1990s, the terms of foreign trade of developing countries deteriorated due to the fall in world prices for raw materials, which until recently accounted for most of their exports.

During the period from 1980 to 1995, world prices for crude oil, for example, decreased almost fourfold, for cocoa beans — almost three times, and for coffee about twice. Experts continue to argue about whether this decline in world prices is temporary or permanent. However, developing countries whose export earnings were largely dependent on the prices of these and other commodities have already suffered serious economic losses, which have significantly slowed down their economic growth and development. In response to the fall in commodity prices, many developing countries are successfully improving the structure of their exports, increasing the share of manufacturing products in it. On average, their exports to developed countries are now dominated by labor-intensive manufacturing products that do not require large expenditures on research and development (R&D), such as clothing, carpets or watches and other mechanisms that require manual assembly. This allows developing countries to make better use of their abundant labor resources by creating more additional jobs. The imports of developing countries from the OECD countries (Organization for Economic Cooperation and Development) mainly consist of capital-intensive manufacturing products embodying modern achievements of science and technology, primarily from machinery and equipment. In the production of capital- and knowledge-intensive goods, developed countries still have not only a comparative, but also an absolute advantage over developing countries.

### 3.1.1 International trade organizations

The modern period of world development, characterized by the intensification of the processes of globalization, regionalization, changes in the structure of the world economy, the transformation of political approaches to the use of force in world politics, gives reason to believe that there is a process of institutionalization in the field of regulation of global problems. Institutionally, this process manifests itself in the emergence of new, non-State actors in world politics. New subjects of international relations are a consequence of the internationalization of various spheres of world development and serve as a basis for reflecting new global challenges and threats. The problem of global governance is one of the

most controversial in the science of international relations. Its integral part is the analysis of existing global institutions. At the same time, the global financial and economic crisis that has manifested itself has revealed their obvious weakness. And this is the reason for the increased interest in the work of various international organizations, with which hopes are pinned on overcoming the crisis phenomena.

In the modern interpretation of the concept of "management", it seems to proceed from its etymological meaning: "management" involves the use of a certain mechanism to direct society in the right direction. Thus, to successfully overcome difficulties, the international community needs new regulatory mechanisms. Of course, this idea does not negate the validity of various attempts to decentralize certain spheres of society's life or introduce some forms of public self-government. But all these efforts cannot completely cancel the "guiding" role of the State and its government. At the global level, it is important that States can agree on how to collectively guide global processes, influence what is happening in the economy and society, without necessarily fully controlling all cross-border movements.

The correction of the difficult economic and political situation is associated with the expansion of the country's participation in international economic, financial and trade organizations and, above all, in the World Trade Organization as the central institution exercising international control over the activities of the participating countries of world economic relations. The World Trade Organization has the legal status of a specialized agency of the UN system. Participation in the WTO gives states many advantages, the receipt of which is the purpose of joining the WTO: non-discriminatory conditions for access to world markets of goods and services, transparency of the economic policy of trading partners, access to an international mechanism for resolving trade disputes, as well as the opportunity to realize their economic interests by participating in the development of new rules of international trade. Thus, the WTO (integration at the global level), significantly contributing to the successful competitive economic growth of states, their increasing interdependence and conflict-free interaction on the world stage, creates conditions for the formation of a unified world economic system. Developed taking into account the interests of many states and proven by practice, the WTO legal regulations, in principle, provide civilized methods and forms of foreign trade exchange. The principal line of the WTO in this matter is the gradual and consistent overcoming of administrative measures and instruments in this area, the predominant focus on economic, tariff levers. This means that

the main direction of import liberalization is to reduce the rates of import customs tariffs and import duties. The special role and effectiveness of the use of tariff regulation at the present stage of the development of world economic relations and international trade are determined by a number of objective circumstances: firstly, with the achieved level of commodity-money relations, market principles of the formation and development of the IEO, it is a fairly effective and flexible instrument of economic regulation; secondly, customs tariffs are used by almost all countries, what determines their importance for the formation of international commodity flows, and ultimately – the structures of economies; Third, national customs tariffs cover the entire range of imports (Rybalkina, 2008).

The international intergovernmental organization of the UN system for providing technical assistance to developing countries and countries with economies in transition in the development of their export potential and international trade is the International Trade Center UNCTAD/WTO – ITC. The ITC was established in 1964 by the General Agreement on Tariffs and Trade (GATT) in order to provide developing countries with trade information and advisory services in the field of export development. Since January 1, 1968, the ITC has been operating under the joint auspices of the GATT (since 1995 – WTO) and the UN Conference on Trade and Development (UNCTAD). The governing body of the ITC is the Joint Advisory Group, which meets once a year for its sessions. In the period between sessions, the activities of the ITC are managed by the Secretariat headed by the Executive Director. The regular budget of the ITC is formed at the expense of annual contributions from the WTO and the UN. Specialized projects are funded by the World Bank, the United Nations Economic Commission for Europe, UNDP, regional development banks, a specially created ITC Global Trust Fund and individual donor countries. The main donors are Switzerland, Denmark, Holland, Germany, Sweden, Canada, Great Britain, India and China. The activities of the ITC are focused on providing practical assistance to the business community and governments in improving and developing international trade and business cooperation. The range of this assistance is quite wide – from the joint development of national export strategies to the commercial and technical aspects of the activities of export-oriented companies. The combination of trade-political and purely commercial elements in the work of the ITC, the concreteness and effectiveness of its activities have formed a serious attitude towards this organization on the part of business circles from both developed and developing countries.

The International Chamber of Commerce - ICC (International Chamber of Commerce) was founded in 1919 as a non-governmental organization. The International Chamber of Commerce develops rules, standards and codes that guide international business, and represents the interests of business at the highest level. More than 1.6 thousand associations of entrepreneurs from more than 140 countries are members of the ICC: federations of industrialists, national chambers of commerce, banking and other unions uniting small and medium-sized firms.

### 3.1.2 Theories of international trade

The pioneer theory of international trade is traditionally considered mercantilist theory, the foundations of which were laid in the works of A. Moncretien, T. Man, J.D.-Stewart. Drawing attention to the fact that the export of industrial and handicrafts is the source of the country's wealth, and foreign goods are the reason for its outflow, the founders of mercantilism declared trade a source of enrichment of the state, recommending that states strive to promote exports and restrict imports to ensure the inflow and accumulation of income (Montchrestien de Watteville A., 1615)

At the same time, the main factors of economic prosperity were recognized as the state's stimulation of the production and export of finished products, protectionism against importers, ensuring the inflow of funds into the country through a ban on their export.

The key assumptions of mercantilism became a reflection of the pre-industrial period of development, the main sign of wealth of which was the accumulation of gold. Mercantilism did not envisage that an active trade balance provides not only an increase in the amount of money in the country, but also leads to an increase in domestic prices. As a result, goods produced in the country become more expensive and lose competitiveness in the foreign market. A decline in exports, in turn, can lead to a negative trade balance and an outflow of money from the country. Criticism of mercantilism became the starting point for new economic theories.

The first such theory was the theory of absolute advantages, according to which it is advantageous for each state to export those goods whose production costs in the country are lower than in other countries (the absolute advantage of the exporting country), and import those goods whose production costs are relatively higher (the absolute advantage of importing countries). In other words, trade between states can be mutually beneficial.

The main prerequisite for mutually beneficial trade is differences in production costs in different countries. And the prerequisite for economic development is non-interference in the economy by the state and the development of production through the division of labor and competition (Hume D, 1752).

In practice, States do not always specialize in the production and export of goods that are competitive in the foreign market in price. Most often this happens when specializing in one product (for example, hydrocarbon raw materials for certain Asian and African countries), the presence of specific natural conditions (tea and coffee production), cheap labor (Asian countries). The reason for the inconsistencies observed in real life is the strict assumptions of the theory of absolute advantages. Such as elastic demand for goods and services, labor as the only factor of production, full employment, zero transport costs, absence of foreign trade barriers, etc. All these conditions at the same time rarely take place in practice, which makes the theory of absolute advantages a largely abstract construction.

The answer to the question why countries trade without an absolute advantage in the production of certain goods having was the theory of relative or comparative advantages formulated in 1817 by D. Ricardo. Its main difference was the postulate that exports and imports can be profitable even in the absence of absolute advantages. Namely: in situations where the production costs of imported goods are higher than the production costs of exported goods. As a result, imports are favorable for the country even in cases when imported goods can be produced domestically at lower costs than abroad. And participation in world trade is advantageous for all its subjects (Ricardo, 1817).

Just like the theory of absolute advantages, D. Ricardo's theory requires certain conditions for its application: the same cost of labor in trading countries, the absence of restrictions in trade relations, zero transport costs, full employment, non-mobility of factors of production between countries, labor costs are the only production costs, production costs are constant, etc. In other words, the basic methodological assumptions of the theory of comparative advantages are identical to the theory of absolute advantages. Whereas in practice, trade relations go beyond such a strict framework. In particular, the theory of comparative advantages does not take into account the possibility of export and import diversification.

The theory of comparative advantage has numerous extensions that weaken its

individual assumptions. There are both concepts and models here: a model for comparing domestic prices, a concept of increasing opportunity cost, a model of comparative advantages "2+; 2+; 1+", so are the theories that have formed new directions and schools of economic thought. Such theories were the theory of market equilibrium and the theory of the ratio of factors of production.

The basis of the theory of market equilibrium, this theory proceeds from the idea that the markets of goods and services tend to an equilibrium state between the volumes of supply and demand for these goods and services. The magnitude of supply and demand is directly determined by prices: the lower the price, the higher the demand and lower the supply, and vice versa. The final price for a product or service is set when the volumes and prices of supply and demand coincide. Deviations from equilibrium states in the market - exceeding either demand or supply - are possible, but temporary. The economy always strives for a state of equilibrium in all markets – goods and factors of production, internal and external. This equilibrium is not stationary and changes following changes in the structure and volume of supply and demand.

The theory of market equilibrium became an applied tool for the analysis of international trade in the middle of the XX century, thanks to the work of the winner of the Nobel Prize in Economics in 1970, J. Meade "Geometry of International Trade". Using supply and demand graphs, consumption indifference curves, etc. he demonstrated how different situations in international trade can be described using the graphical tools of market equilibrium theory. In the future, the use of market equilibrium theory in international trade studies focused on the analysis of foreign trade and payment balances of countries, foreign trade policy of national governments, competition between national and foreign producers of goods and services (Meade J., 1952)

Another major trend in the development of economic thought after the theory of D. Ricardo was the theory of the ratio of factors of production, the foundations of which were formulated by E. Heckscher and the winner of the Nobel Prize in Economics in 1979, B. Olin. This theory proceeds from the assumption that the price of factors of production in a country is directly determined by their excess and, as a result, goods in the production of which excessive and relatively cheap factors of production predominate will be relatively cheaper. As a result, countries export goods produced using surplus factors of production for them, and import those goods in the production of which the factors of

production predominate, with which they are endowed worse. (Nescshegb1933) This statement was called the Heckscher-Ohlin Theorem, and the theorem itself became the core for the theory of the ratio of factors of production – a set of theoretical tools that extend the Heckscher-Ohlin theorem:

- Stolper-Samuelson theorem: an increase in the price of a commodity as a result of international trade leads to an increase in income for the factor that is used most intensively in the production of this commodity (Stolper, 1941);
- the Heckscher-Olin-Samuelson theorem: international exchange of goods and services leads to the leveling of price differences not only for traded goods, but also for factors of production (Samuelson, 1949);
- Rybchinsky's theorem: increasing the supply of a factor production leads to an increase in the production of goods and an increase in exports of products from industries where it is most intensively used, while simultaneously reducing the production of goods and exports of industries where this factor is used to the least extent;
- Jones' theorem: a change in external factors (exogenous variables) leads to a disproportionately greater increase in internal factors (endogenous variables)

The theory of the ratio of factors of production managed to circumvent the disadvantages of the theory of comparative advantages noted above. In particular, to answer the question of why comparative advantages are emerging, as well as to go beyond a one-factor view of trade relations between countries. However, a number of restrictions remained: the mobility of factors of production within national borders and their non-mobility between countries; the absence of trade barriers and the zero role of national governments; the absence of transaction costs and perfect competition. As a result, this theory does not always work in practice. Most cases of deviations from the theory of the ratio of factors of production in practice fall under the phenomenon known in economics as the paradox, named after the winner of the Nobel Prize in Economics in 1973, V. Leontiev. In 1953, in his work on the foreign trade of the United States<sup>23</sup>, he showed that the share of capital-intensive goods in their exports was declining, despite the relative cheap capital, and labor-intensive - on the contrary, was growing, despite its comparative high cost of American labor. The results of this study are called "Leontiev's paradox".

The resolution of the "Leontiev paradox" and, consequently, the solution of the question

of the universality of the theory of the ratio of factors of production went further in two directions: by weakening its assumptions and by shifting the focus to the competitive advantages of specific manufacturers.

Examples of solutions in the first direction are:

- hypothesis/concept of inversion of factors of production by B.Minkhasa, according to which international trade develops due to differences in the efficiency of the use of factors of production between countries and the same product can be labor-intensive in a labor-rich country and capital-intensive in a capital-poor country;
- model of specific factors of production and the Theorem

Samuelson–Jones, according to which the main prerequisite for the international exchange of goods and services are differences in their value due to the different availability of factors of production in countries, and the main consequence is an increase in the income of owners of those factors of production that are specific to export industries, and others.

In turn, the shift of emphasis to the competitive advantages of specific manufacturers led to the emergence of a new school of thought in the economic analysis of international trade, which became the foundation of the methodological core of a new economic discipline - international economics.

### **3.2 EAEU overview**

Today in the world there are many organizations, widely spreading their activities. All have a different nature of association, but it is worth noting that the economic goals of integration predetermine the continued existence of one or another organization. Processes of globalization are one of the reasons for the intensification of integration processes since the end of the XX century, as well as the tendency of new associations to appear. It is a well-known fact that political associations in the modern world yield to integration with an economic nature, because, according to the theory of realism, national interests are above all, and it is much harder to find common, namely political, solutions.

One of such organizations, which is characterized by the economic nature of the association, is the Eurasian Economic Union (EAEU), its prehistory is the period since 1994.



Step by step, for more than 10 years, some of the CIS countries (1991 - an agreement on the creation of the Commonwealth of Independent States): Russia, Kazakhstan and Belarus, worked to create an integration association, which, thanks to its specificity, would be able to increase mutual trade between them, to increase competitiveness in the world arena, and attract new member states. In the European part of the post-Soviet space to the west of the Caspian Sea, the EAEU is facing the growing influence of the European integration project. Lithuania, Latvia and Estonia joined the European Union as full member states, consolidating their withdrawal to the Euro-Atlantic space with NATO membership. The other three countries — Ukraine, Moldova and Georgia — have concluded association agreements with the European Union. The authorities of Ukraine and Georgia are determined to strengthen their political and economic ties with the European integration space in the hope of gaining the status of candidate countries for EU membership. Azerbaijan has withdrawn from the negotiation process on association with the EU, but it is also not going to join the EAEU.

While the European part of the post-Soviet space is an area of intersection of European and Eurasian integration projects, in Central Asia, the European Union is not a factor determining the relations of the countries of the region with the EAEU. Relations with the EU do not become a watershed between Russia and the countries of the region. On the other hand, China's gravitational pull from the east and the cultural and religious influence of the Muslim world from the south and southwest are more strongly felt here. At the same time, there are no integration projects comparable to the EU and the EAEU in terms of the impact in this region today, if we do not take into account the Central Asian integration project that began to gain momentum in the 90s, but it still has not been able to acquire the necessary dynamics. (Knobel, 2018)

The EAEU has become the transition of the Eurasian integration project to a new level of integration interaction.

One of this integration organization is the Eurasian Economic Union (EAEU), created in the post-Soviet space.

The main objectives of this organization are:

- creation of an integration space in which the free movement of goods will be ensured
- ensuring the implementation of a coordinated and unified policy in various areas of the economy;

- ensuring a comprehensive modernization and strengthening the competitiveness of national economies;

- creation of favorable conditions for the development of living standards of the population.

The EAEU is potentially a very powerful economic, geopolitical and ideological project. In terms of economy, the EAEU unites five states with a total population of 182.5 million people, on its territory, which is 14% of the land, there is one fifth of the world's gas reserves, 15% of oil and reserves of almost all elements of the Mendeleev table. The EAEU leads the world in: oil production - 1st place in the world; gas production - 2nd place, coal production - 6th place; electricity generation - 4th place; steel production - 5th place; fertilizer production - 2nd place; iron production - 2nd place; collection of cereals and legumes - 5th place; potato and wheat production - 3rd place; milk production - 3rd place, meat production - 4th place, etc.<sup>18</sup> The total GDP of the countries is about \$2.2 trillion. (about 85% of GDP of all CIS countries).

Overall, the EAEU ranks 6<sup>th</sup> place in the world in terms of industrial production. It is important that Russia accounts 80-87% of the total economic potential of Eurasian Union member countries. Because of the EAEU's most important geostrategic position, it has the potential to be the most important transit transport hub connecting Europe and Asia. The EAEU ranks second in the world in terms of the length of railways and fifth in terms of total length of roads. But one of the most important advantages that the EAEU has is the common history and experience of doing business together. The common industrial, transport, and energy complexes, back in the early 1990s, were the driving forces behind the renewal of a constructive dialogue between the newly independent countries, and the transition from mutual recriminations and accusations to economic cooperation. The absence of a language barrier, a common history and understanding of national cultures are all important factors and, at the same time, the driving force behind Eurasian integration processes. (Shishkov,2001)

Thus, the EAEU is a set of states united by a historical past and economic tie.

Each stage of Commonwealth of Independent states (CIS) development is characterized by its specific features, systems of economic interrelations, as well as investment relations between member states and their national investment climate.

### 3.2.1 History of EAEU

The first stage (1991-1994) was marked by the hasty disintegration of the USSR, the euphoria of independence, and the nationalization of former Soviet property by the republics. Almost all of the new sovereign states showed a desire to enter the world market on their own. The competition for foreign concessional loans, investments and international aid began. These states began to look for partners and donors among developed countries and in traditionally close centers of influence. During this period, large-scale integration projects remained on paper.

The second stage could be dated from 1994-1995 to 1999. On October 21, 1994 an Interstate Economic Committee (IEC) was created, which for the first time in CIS history was given control and distribution functions and had powers both for making decisions, which were binding for all CIS members, and for applying sanctions. A number of authors, including S.L. Basargin consider February 26, 1999 to be the beginning of the third stage. On that day Belarus, Kazakhstan, Kyrgyzstan, Russia, and Tajikistan signed the Treaty on Customs Union and Common Economic Area, which, without specifying any timeframes, defined the contents of the following integration stages: the first stage is to ensure full implementation of free trade regime, in particular, non-application of tariffs and quantitative restrictions in mutual trade, introduction of single system of indirect taxation, elimination of administrative burden, and the third stage is to be implemented in full. In the 2000s we can see the development of the fourth stage of integration in the CIS, traceable through the activities of EAEU and the formation of the Common Economic Space.( Turlai,2011)

Thus, we can state that the processes of forming an integration association in the post-Soviet space are still very far from completion.

However, closer integration also poses quite serious problems. For economic subject's interstate integration means increased competition by facilitating access of foreign producers to the national market and foreign capital to the economy. This negative consequence comes very quickly, while positive consequences are of a potential nature and can be expected at best in the medium, but rather in the long run.

In addition, interstate integration may require redistribution of the social product between the members of the integration grouping to equalize economic imbalances. To transfer part of the national GDP to "foreign" population requires a very substantial justification. This is unlikely due to the following circumstances. First, the economic situation of most of the Commonwealth states is getting better at a slow pace, which is a

consequence of the rupture of economic ties. These ties of unsettled currency and financial relations, settlement and pricing mechanism, small volumes of mutual investments. Russia's actions to protect its own market, establish reasonable prices for energy and other resources additionally create considerable economic complications for them, including raising the prices for these resources to the level of world prices. Secondly, the illusions of many CIS countries about the possibility, being economically independent, to solve their problems quickly were finally dispelled. Such as filling the market, attracting large volumes of foreign investments, and successfully implementing reforms taking into account national specifics.

Thirdly, the understanding the role and consequences of the expected assistance from the developed countries and international economic groupings became more reasonable.

One of the most important components of the Common Economic Space is the investment space. It is characterized by an internal regime favorable to investors seeking to carry out entrepreneurial activity in the national economies of member states. In this connection it is necessary to note that regional investment relations in Eurasian Economic Community (EurAsEC) have a multilevel character. Six levels can be distinguished: CIS - EurAsEC; EurAsEC - "far abroad" countries outside the CIS; EurAsEC - the Union State of Russia and Belarus; EurAsEC - the Customs Union (CU); EurAsEC - member countries; bilateral investment relations of the countries of the Community. And each of them differs in its peculiarities of formation and implementation of investment policy and investment relations.

Thus, the Commonwealth countries need a new algorithm of economic cooperation, which requires further development of the CIS based on the creation of a common economic, transport, investment-financial, innovation, educational and legal space, a new paradigm of development of integration institutions, common infrastructure, large-scale investment, and innovation projects.

### 3.2.2 Creation of the EAEU

January 2022 is the eighth year of operation of the largest economic integration formation in the post-Soviet space - the EAEU (Eurasian Economic Union). After eight years of the Union's existence, the member countries have sought to interact based on the Treaty on the Union signed in May 2014, and there have been many difficulties along the way. To draw a conclusion about the Union's work, one should understand what stages of integration preceded this union. (Akhmetzyanova, 2010)

Initially, the Eurasian Economic Community (EAEU) was created; it existed from 2001 to 2014, and was the first international organization among the former republics of the USSR that was economic in nature. At this stage, many goals were set, some of the most important: to form a Customs Union and a Common Economic Space in the future. The permanent members were: Russia, Kazakhstan, Kyrgyzstan, Belarus, and Tajikistan.

Uzbekistan suspended its membership in 2008, after being a member for two years. Tashkent was looking for an alternative to its international engagement. This happens because after the Andijan events, in May 2005 (a rally of Uzbek citizens against the detained, in their opinion, 23 innocent businessmen, which turned into a demonstration against the government), the United States and other Western countries condemned the actions of the Uzbekistan government and imposed sanctions on the country. In January 2006, the protocol on the Uzbekistan accession to the Eurasian Economic Community was signed. The president I. Karimov, began to get closer to Russian leadership, which caused a tacit dissatisfaction of the West. Two years later, the sanctions began to soften and were soon lifted completely (2009), which most likely contributed to Uzbekistan's withdrawal from the EurAsEC in 2008. (Osadchay, 2016)

This event did not prevent the Community from developing further: in 2010 the Customs Union, which included only three EurAsEC members: Russia, Kazakhstan and Belarus, began to operate. Even though Kyrgyzstan and Tajikistan were permanent members of EurAsEC, they were not part of the Union. They should have seriously worked to improve their customs legislation.

As early as 2012, Tajikistan and Kyrgyzstan began preparing documents for joining the Customs Union. In a sense, Dushanbe was waiting for the first steps from Bishkek, since it is the latter that separates Tajikistan from the borders of the CU. The Kyrgyz government, for its part, was preparing a road map for participation in the integration union.

Obstacle to joining the union, are the reasons, which the government of any country faces in matters of participation in integration associations. This is, first, certain changes in the legislation, which takes a lot of time, the willingness of the country to sacrifice something for the common good of the union and so on. Some countries find it difficult to cross this line, to go through serious structural changes, to make significant changes to their constitution and to accept the fact that gradually the country will be involved in the integration association, and some events will no longer be under the control of the country itself.

While Tajikistan was debating over their further participation or non-participation in the CU, the EurAsEC member states, Russia, Kazakhstan and Belarus, initiated the creation of the Common Economic Space (CES), including the functioning of the Common Market (CM) in 2012 in parallel with the existence of the union. In the same year, the Eurasian Economic Commission (EEC) began to work.

In parallel with the processes of Eurasian integration within the community, a Free Trade Zone (FTZ) began operating in the CIS space in 2012, which currently includes: Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan, Moldova, Tajikistan, Ukraine and Uzbekistan. The question arises: how can the EAEU member states interact with the rest of the FTA countries (apart from Ukraine and Russia, which, since January 2016, have mutually announced the termination of the FTA in relation to each other)? The fact is that the Treaty on the creation of the FTA, Article 18 paragraph 1, states the following: "This Treaty does not prevent the Parties from participating in agreements on customs union, free trade and/or cross-border trade in accordance with the rules of the WTO. But it should be noted that the Treaty was made under the existing Customs Union and also that at the time of signing the Treaty (October 18, 2011) the following countries were not WTO members: Tajikistan, Kazakhstan and Russia. (Barskaya, 2015)

According to the annual report of the Department of Economic Cooperation of the CIS Executive Committee on the results of implementation of the FTA Treaty provisions in 2014-2015 :

- The implementation of the provisions of the Treaty led to an active growth of mutual trade of its participants. The decrease in trade turnover in 2014-2015 due to falling prices in world markets and a slowdown in economic growth was also less drastic than in similar conditions in 2009-2010;

- Negotiations on the draft Agreement on Free Trade in Services, stipulated by the Treaty and the Decision of the Council of Heads of CIS Governments of October 18, 2011, are underway;

- The terms established by the Treaty for the cancellation of exemptions from the free trade regime in import duties are observed. The number of exemptions was reduced to two items. The parties fulfill their obligations with regard to export duties;

- The number of market protection measures applied by the parties in mutual trade in 2015 is 15. Thus, the positive trend related to the decrease in the application of special protective, anti-dumping and countervailing measures in mutual trade continues.

- Conditions of application of technical, sanitary and phytosanitary measures in mutual trade defined by the Treaty are implemented.

On May 29, 2014, Presidents V.V. Putin, Nazarbayev, and Lukashenko signed the Treaty establishing the EAEU, which entered into force on January 1, 2015. Later, on January 2, Armenia joined it, followed by Kyrgyzstan on August 12 (on May 29, 2015, the EAEU signed a free trade zone agreement with the Socialist Republic of Vietnam).

In order for the union to function successfully, it should rely on a certain regulatory framework. This will contribute to the harmonization of economies and the convergence of the legislations of the EAEU member states.

The treaty-legal base of Eurasian economic integration today consists of the following documents:

-Customs Code of the Customs Union (2010), according to it three CU countries must transfer to the CU Commission the authority to conduct foreign trade regulation.

-17 basic international agreements forming the Common Economic Space (2013)

-Law on Competition (2013) defines common approaches to the main provisions of the Law on Competition in the CU countries;

-Agreement on Information Interaction in the Field of Statistics (2013) to provide official information to the Eurasian Economic Commission (EEC) and the countries of the Union;

-Agreement on the order of movement of drugs (2013) and their precursors on the customs territory of the CU

-The Treaty on EAEU (2015);

-Treaty on Coordination of Actions for the Protection of Intellectual Property Rights (2015).

-Agreement on shipping (2015);

-Treaty on pension security of EAEU workers (2016);

-International agreement on the procedure and conditions for removing technical barriers in mutual trade with third countries (2016), etc. (Vartanova,2017)

In addition to the legal framework, the EAEU has the "Four Freedoms" principle

1) The Single Market of Goods, which began to operate already with the formation of the Common Economic Space. It implies freedom of movement of goods: removal of customs controls at internal borders between the three countries;

2) The Common Market for Services, it means free movement of services;

3) Common labor market – free movement of labor resources. This implies: direct recognition of education documents (which is important for migrants to stay for permanent residence in any state of the EAEU), regulation of issues of temporary stay of citizens, provision of full social guarantees, free emergency medical care.

4) Common financial market - freedom of capital movement.

Of course, the most effective and qualitative integration is in the unification process of more similar countries in economic terms: approximately the same level of economic development, GDP indicators, GDP growth rates, inflation rates, unemployment, etc.

So, the prerequisite for the creation of the EAEU, which exists now is the integration model of cooperation in the example of the EurAsEC. The idea of creating a common integration model between Russia and the countries of the former Soviet Union appeared long ago. In 2001, EurAsEC was created. Initially, it consisted of Russia, Belarus, Kazakhstan, Kyrgyzstan and Tajikistan. In 2006, Uzbekistan joined EurAsEC, but two years later it suspended cooperation. With the entry into force of the treaty of 1 January 2015, when EurAsEC was transformed into the EAEU, the authority of the integration organization increased, which explains the desire of many states of the continent to join its ranks to improve integration between EAEU member states.

There are several categories of states that are either already members of the EAEU or have expressed their desire to join the association: Russia, Belarus, Kazakhstan, Armenia, Kyrgyzstan, Egypt, Thailand, Iran, Singapore, Pakistan, Israel, India, China.

### **3.3 Economic development of the EAEU**

The Eurasian Economic Union began full-fledged work on January 1, 2015. It consists of five states: Russia, Kazakhstan, Belarus, Armenia and Kyrgyzstan. The history of the integration of the EAEU has been going on for more than 20 years – the first initiatives on the formation of an economic union of post-Soviet states appeared in the mid-90s. The modern EAEU is an international integration association within which the Common Economic Space (CES) operates, ensuring the free movement of goods, services, capital and labor, as well as the customs union. 5.5% of the world's population lives on the territory of the Chernobyl NPP, more than 90 million people are economically active. The territory of the EAEU states remains the largest economically integrated region in the world with an area of more than 20 million square kilometers in Eurasia.



Of the fifteen post-Soviet states that emerged as a result of the collapse of the USSR, the remaining ten former Soviet republics remained outside the organization.

According to the totality of economic indicators, the EAEU is the second integration association in the world after the European Union. The share of the EAEU countries accounts for about 4% of global GDP and industrial production, however, the countries of the EAEU differ in the level of macroeconomic development, GDP growth rates, GDP per capita and the structure of the economy. After the crisis phenomena of 2014, there was some macroeconomic decline in Russia and Belarus in 2015-2016. However, Armenia, Kyrgyzstan and Kazakhstan showed economic growth. According to experts' forecasts, in 2017 The growth of basic macroeconomic indicators was expected in all the EAEU states, and these expectations were met. It is obvious that both in terms of GDP and in terms of GDP per capita, Russia surpasses other EAEU countries. The economic structure and principles of macroeconomic regulation in the EAEU space remain similar. Historically, strong economic, logistical, cultural, social and political ties have developed in the region, a single national economic complex has been created and continues to develop. It is important to note that, despite the difference in scale, the sectoral structure of the economies of the EAEU countries, such as the Russian Federation, Belarus and Kazakhstan, remains generally similar, but in Armenia and Kyrgyzstan the share of agriculture in the GDP structure is higher. Industrial production in the EAEU countries during the global economic crisis showed a slight decline, but in 2016 there was a trend towards the recovery of the industrial production index.

By the time the EAEU was formed in 2015, the special challenges facing the Union states included the lack of competitiveness of their economies, high dependence on the energy sector, as well as on imports of high-tech goods, the need to resist crisis phenomena in the global economy. The structure of industrial production of such EAEU states as Russia and Kazakhstan has an obvious shift towards resource-producing sectors. At the same time, the Republic of Belarus has the highest share of the manufacturing industry (more than 86%) in the total structure of industrial production. One of the key tasks to be solved by the EAEU Customs Union is to increase the volume of foreign and mutual trade of the Union member states. However, the crisis phenomena in the global economy and the raw materials orientation of exports of large EAEU countries do not yet allow for a significant increase in export volumes. The devaluation of the national currencies of the EAEU countries in 2014-2015 played a significant role in reducing the indicators of foreign trade expressed in dollars.

The dynamics of the volume of mutual trade in the EAEU countries is of a similar nature. (Medvedeva, 2016)

The main foreign trade partners of the EAEU states are the EU countries, China, CIS countries (except the EAEU), as well as the USA, Turkey, Japan, the Republic of Korea, Ukraine, India, Switzerland and Brazil. China's share in the foreign trade of the EAEU countries amounted to more than 15% in 2016, while the indicators of both exports and imports are high. One of the foundations of Eurasian integration is the fuel and energy complex, which plays a system-forming role for the economies of all the countries of the Union. Energy integration has been declared by the Eurasian Economic Commission as one of the main tasks that will be solved in three key areas through the formation of common markets for electricity (2019), gas and oil (2023-2025). The form, nature and target indicators of the development of the common energy markets of the EAEU are determined by the relevant Decisions of the EEC, and currently an active discussion continues in the scientific and expert community about the details and mechanisms for the implementation of the goals. For a number of years, the EAEU energy exporting states (Russia and Kazakhstan) have been competing on the world market. The most important task in shaping the common energy policy of the EAEU states is to transform them from competitors into partners in the supply of energy resources to the world market. The total reserves of raw energy resources of the EAEU states are very significant. Large-scale coal, oil and gas production is carried out mainly in Kazakhstan and Russia. Oil and gas account for 70% of Russia and Kazakhstan's exports, and more than half of imports are technological goods. Moreover, the largest percentage of imports from the total mass of the corresponding market is observed in the sector of production of means of production and in the sector of components, that is, Russia has a high share of imports in the intermediate product, which shows a significant, more than 36%, dependence of Russia on technology imports a similar situation is observed in Kazakhstan, which is also an oil exporter. Over the years, the share of revenues from the oil industry in the country's budget has been constantly growing; today, in its consolidated budget, this share accounts for about 44% of all revenues. (Gazprom, 2015)

At the same time, Kazakhstan still largely depends on the supply of oil and gas raw materials and petroleum products from Russia and other CIS countries due to the insufficient development of its own oil and gas complex. The fuel and energy complex (FEC) plays an extremely important role in the economy of the EAEU member states and will continue to

play it in the foreseeable future (inevitably in the medium term, with high probability in the long term). The share of the fuel and energy complex in the GDP of the EAEU countries is 17%, its share in the industrial production of the EAEU reaches about 33%. In the current paradigm of macroeconomic development of the EAEU states, with all the importance of the energy sector, it is obviously necessary to find ways to develop other sectors of the economy, to form the ground for obtaining benefits from the multiplicative effects of the process of economic integration and international trade. As noted above, China remains the main trading partner for the EAEU, and if current trends continue, it will become a key partner in strategic development. For the further development of the EAEU, such a partnership will be necessary, since it will make it possible to maximize the integration opportunities of the Eurasian space. A special role in greater Eurasia will belong to India. (Turlai, 2011)

### **3.4 Econometric analysis**

Econometrics is a science that quantifies interrelated economic phenomena and processes. The purpose of econometrics is to give quantitative measures to the interrelationships of economic relations and processes.

Econometrics consists of three elements -- economics, statistics, and mathematics:

- econometrics determines the formulation of the problem, as well as interprets the result;
- statistics provide the necessary data for building models;
- mathematics provides the methods needed to build models.

Econometrics deals with specific economic data and deals with the quantitative description of specific relationships, that is, it replaces the coefficients presented in general form in these relationships with specific numerical values. With the help of econometrics, it is possible to build economic models based on economic theory or empirical data, and determine the possibility of using them to describe, analyze and predict real economic processes.

Econometrics deals with specific economic data and deals with the quantitative description of specific relationships, that is, it replaces the coefficients presented in general form in these relationships with specific numerical values.

With the help of econometrics, it is possible to build economic models based on economic theory or empirical data, and determine

the possibility of using them to describe, analyze and predict real economic processes.

For example, microeconomic theory asserts that a decrease in the price of a commodity leads to an increase in demand for a given commodity (provided all other factors remain unchanged), that is, a relationship is established between the demand for a commodity and the price of it. However, microeconomic theory does not provide quantitative estimates of this relationship, that is, it does not allow us to answer the question of how much the demand for this product will change because of a change in its price by a certain amount. The calculation of quantitative estimates is the task of econometrics. In econometrics, the main method of research is correlation and regression analysis. Therefore, as the stages of econometric research can specify:

- problem statement;
- data acquisition, analysis of their quality;
- model specification selection;
- selection of factors;
- evaluation of parameters;
- checking the reliability of the received parameters;
- interpretation of the results.

This list includes the stages that any study goes through, regardless of whether it is focused on the use of spatial or temporal data.

In econometrics, there are three main classes of models that are used for the analysis and forecasting of economic systems:

-regression models with one equation – isolated

-linear and nonlinear equations with spatial data are used. Depending on the number of factors included in the model, the models are divided into a paired regression model and a multiple regression model;

-time series models using time points  $t$  and, accordingly, time data as a factor feature;

-systems of econometric equations. They are used if the process under study cannot be described by a single equation.

## Practical Part

### 4.1 Structure of EAEU countries trade before the creation of EAEU

#### 4.1.1 Foreign trade

Foreign trade is one of the most important functions of any state. The qualitative and quantitative indicators of exports and imports, the balance and total trade turnover, are among the most important indicators of the state of the country's economy and its competitiveness. They make it possible to identify key trading partners of each EAEU country on the world market. Therefore, by tracing member countries' trade relations both within the Union and with third countries, it is possible to draw a conclusion about the nature and degree of integration within the Eurasian Economic Union.

The main problem of integration within EAEU is the dominance of the redistributive motive over the productive one. In order to study the trade relations of EAEU member countries in more detail, analysis of foreign and mutual trade of EAEU member countries during 2011-2015 was conducted. Russia is the undisputed leader in the volume of foreign trade among the member countries of the Union. EAEU trade balance for the entire period under study is positive. This indicates the presence of demand for goods produced in EAEU (Table 1).

**Table 1: Volumes of foreign trade in goods of EAEU member states with third countries, 2011-2015( in billion U.S. dollars)**

Country	2011	2012	2013	2014	2015	2015 to 2014 ., %
<b>Armenia</b>						
- turnover	4,3	4,3	4,4	4,5	3,5	77,8
- import	1,1	1,1	1,1	1,2	1,3	108,3
- export	3,2	3,2	3,3	3,3	2,2	66,7
- balance	-2,1	-2,1	-2,2	-2,1	-0,9	142
<b>Belarus</b>						
- turnover	46,1	47,5	39,4	38,1	28,8	75,6
- import	26	28,8	19,4	19,9	15,7	78,9
- export	20,1	18,7	20,0	18,2	13,1	72,0
- balance	5,9	10,1	-0,6	1,7	2,6	152,9
<b>Kazakhstan</b>						
- turnover	97,5	107,9	107,9	98,6	60,1	61,0
- import	76,8	79,6	78,1	72,3	40,8	56,4
- export	20,7	28,3	29,8	26,3	19,3	73,4
- balance	56,1	51,3	48,3	46,0	21,5	46,

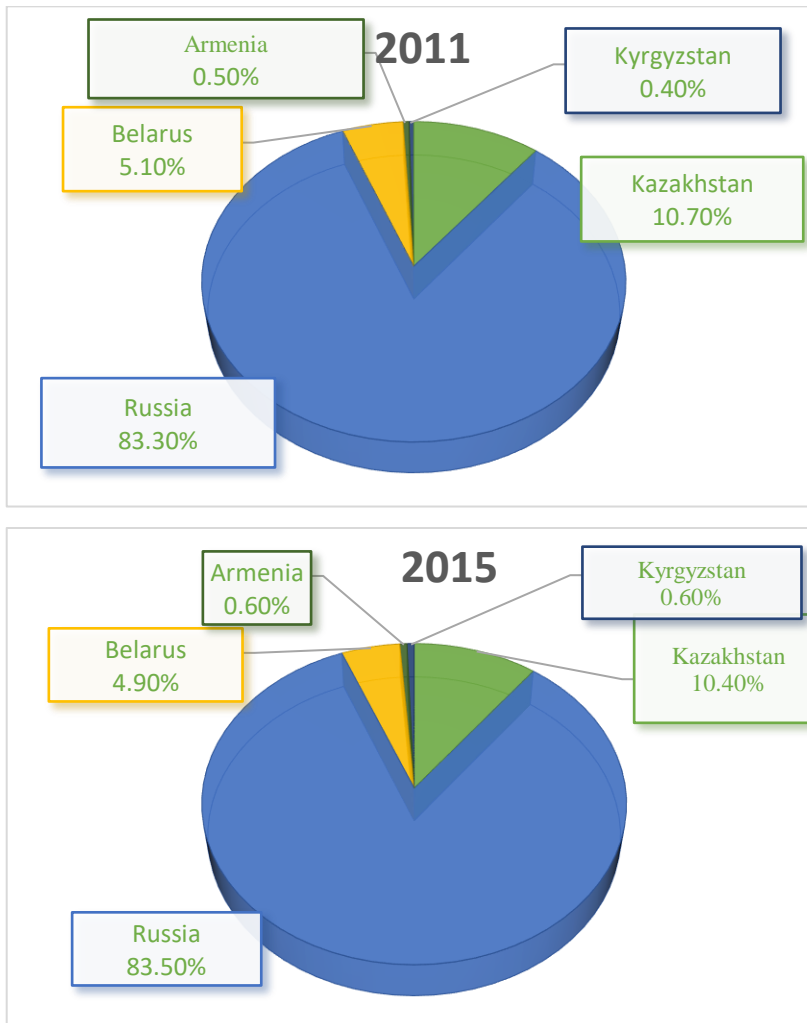
Kyrgyzstan						
- turnover	4	4,2	4,8	4,4	3,2	72,7
- import	1,7	1,3	1,5	1,3	1,1	84,6
- export	2,3	2,9	3,3	3,1	2,1	67,7
- balance	-0,6	-1,6	-1,8	-1,8	-1	155,6
Russia						
- turnover	760,2	774,9	781,1	727,5	483,9	66,5
- import	476	481,9	486,4	460,9	315,2	68,4
- export	284,2	293,0	294,7	266,6	168,7	63,3
- balance	191,8	188,9	191,7	194,3	146,5	75,4
EAEU						
- turnover	912,1	938,8	937,6	873,1	579,5	66,4
- import	581,6	592,7	586,5	555,6	374,1	67,3
- export	330,5	346,1	351,1	317,5	205,4	64,7
- balance	251,1	246,6	235,4	238,1	168,7	70,9

Source: Eaeunion data

Thus, the total volume of foreign trade in goods of the member states of the Eurasian Economic Union with third countries in 2015 was \$579.5 billion, including export of goods - \$374.1 billion, import - \$205.4 billion. Compared to 2014, foreign trade turnover in 2015 was down 33.6%, or \$293.6 billion, with exports down 32.7% (\$181.5 billion) and imports down 35.3% (\$112.1 billion). The foreign trade surplus was \$168.7 billion compared to \$238.1 billion in 2014. Compared to 2013, foreign trade turnover in 2014 decreased by 6.9%, or \$64.5 billion, exports by 5.3% (\$31.2 billion), and imports by 9.6% (\$33.3 billion).

The volume of foreign trade of participating countries remained almost unchanged over the entire period under study. Analysis of the data in Table 1 shows that Belarus, Kazakhstan and Russia are import-oriented countries. The Russian Federation is the leader in both export and import volumes. The export-oriented countries are Armenia and Kyrgyzstan, with a balance of \$0.9 billion and \$1 billion in 2015, respectively.

**Graph 1 – Distribution of volumes of foreign trade in goods of EAEU member states with third countries, 2011 and 2015, %**

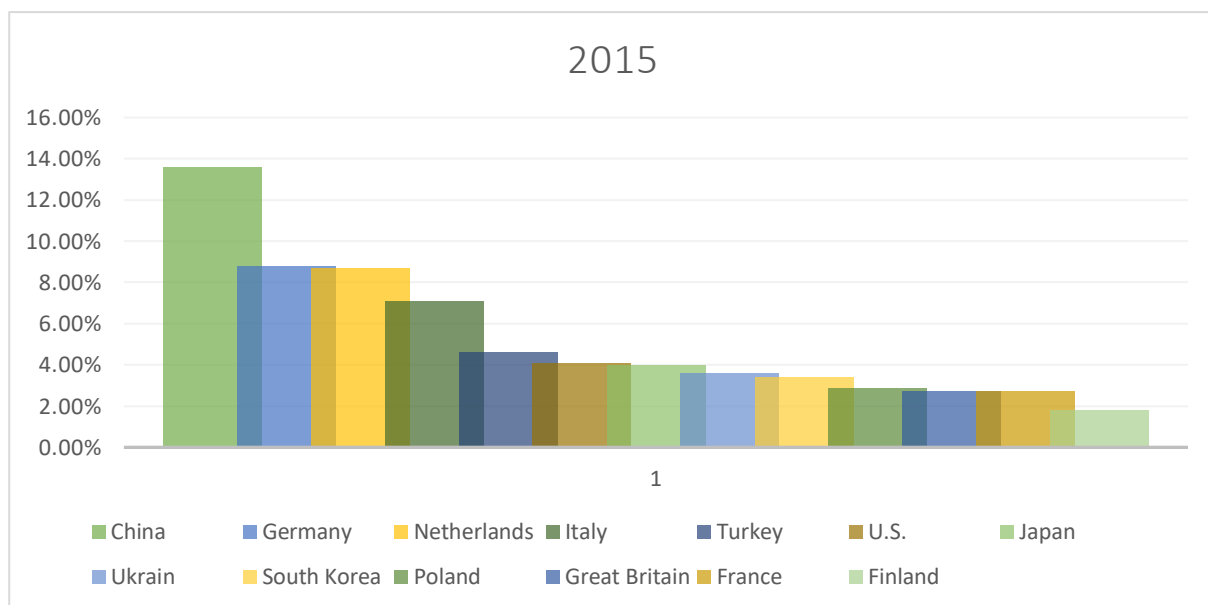
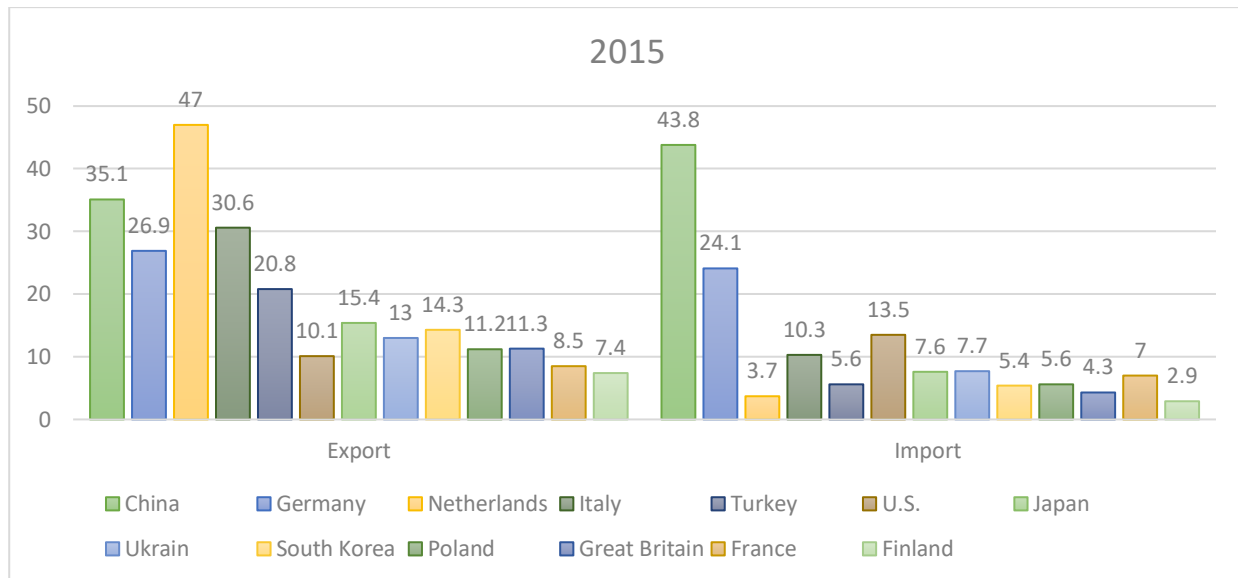


Source: Eaeunion data

The Russian Federation has the largest share in trade of EAEU member countries with third countries. It accounted for 84.3% of all exports and 82.1% of all imports in 2015. Russia also accounted for 83% of total foreign trade with third countries in 2015 and 2011. Armenia has the smallest share. Its share in 2015 was 0.6%, and 0.5% in 2011.

In order to analyze in more detail the main trade partners of the integration grouping, let's look at Graph 2.

**Graph 2 – Distribution of the volume of foreign trade in goods of EAEU member states by main trading partners, 2015 (billion U.S. dollars)**



Source: Eaeunion data

The main trade partner of EAEU member countries is China (13.6% of the share in total trade). The main area of cooperation is the import of manufacturing and finished products from China.

The Netherlands and Germany each account for 8.7% of foreign trade with third countries. In 2015, exports to the Netherlands were \$47 billion and exports to Germany were \$26.9 billion. Imports from Germany are also significant - in 2015 they amounted

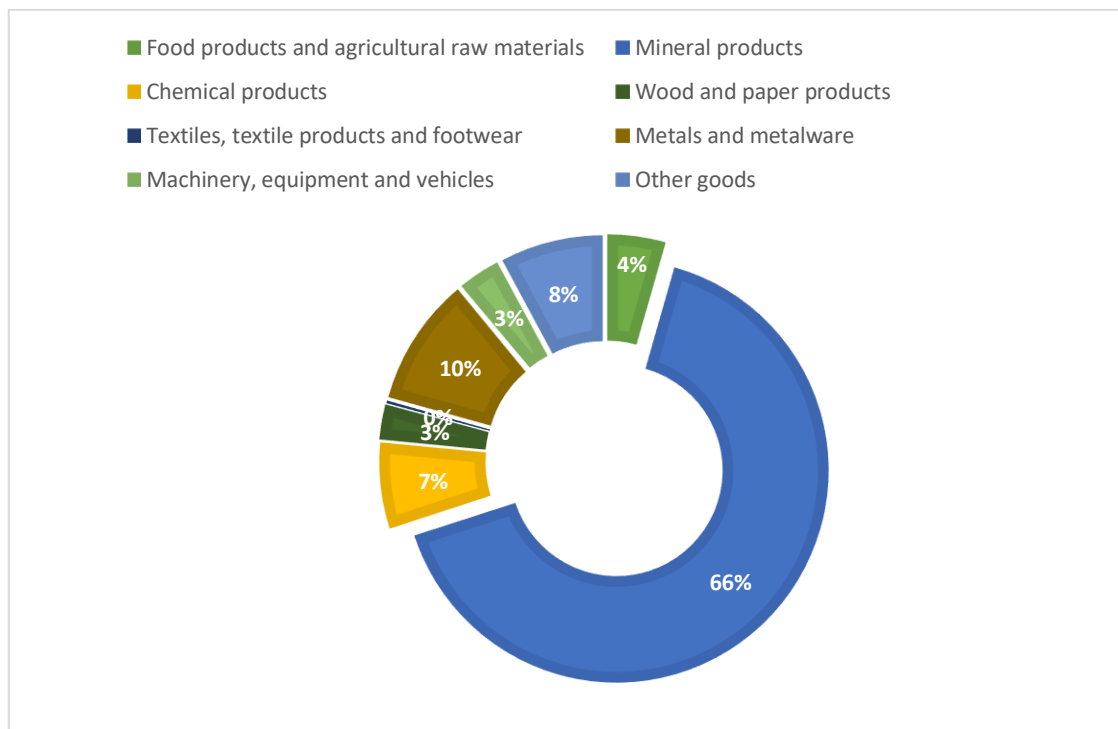


to \$24.1 billion.

EAEU countries have the smallest trade volumes with third countries with Great Britain, France and Finland. They accounted for 2.7%, 2.7% and 1.8% of trade volumes, respectively, in 2015. These countries mainly export goods to EAEU countries.

However, it is worth noting an important feature - if we consider trade with the EU countries in the aggregate, it is the EU that is one of the key partners of the Eurasian Economic Union. The commodity structure of exports of EurAsEC member countries in foreign trade with third countries is illustrated in Graph 3.

**Graph 3 - The commodity structure of exports of EAEU member countries in foreign trade with third countries, 2015 (in %).**



Source: Eaeunion data

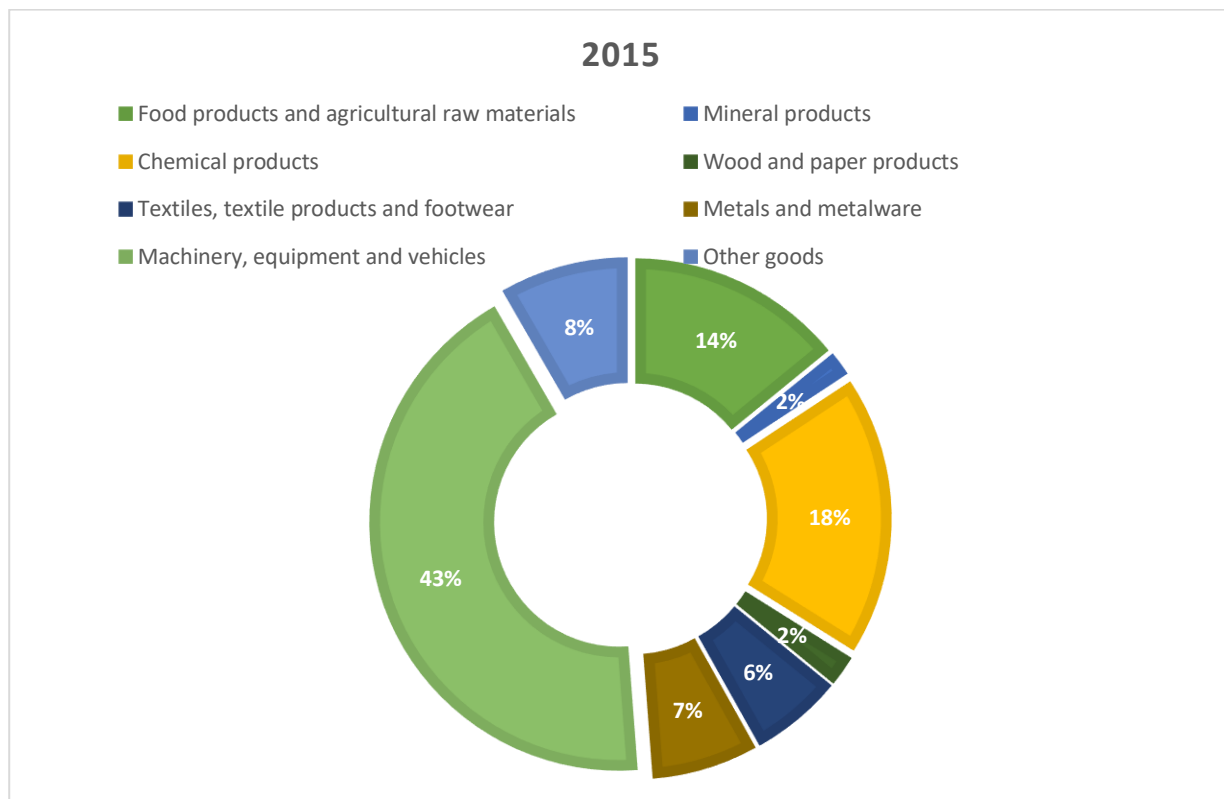
The commodity structure of exports of EAEU member states to third countries in 2015 was dominated by mineral products (65.6% of total exports of EurAsEC member states to third countries), metals and metal products (9.7%), and chemical industry products (6.5%). More than 80% of these goods are sold on the external market by the Russian Federation. Textile, textile products and footwear have the smallest share in the commodity structure - 0.2%.

The structure of trade with the Eurasian Economic Union gives rise to serious concerns: more than 2/3 of Union exports are raw materials, and almost all imports are

products of a much higher level. In the long term, this is a negative factor, because it makes EurAsEC foreign trade dependent on the level of energy prices [13].

The commodity structure of imports in foreign trade of the Eurasian Economic Union with third countries is characterized by Graph 4.

**Graph 4 - The commodity structure of imports of EurAsEC member countries in foreign trade with third countries, 2015(in %)**



Source: Eaeunion data

The commodity structure of imports in foreign trade with third countries in 2015, the share of machinery, equipment and vehicles prevails - 42.9%. Products of chemical industry account for 18.2% of foreign trade of the member states of the Union. Food products and agricultural raw materials also have a significant share in the commodity structure of import in foreign trade - 14.1%.

#### 4.1.2 Mutual trade

Regarding domestic trade, the unification of markets, resources and assets within the Eurasian Economic Union has two advantages. First, a larger domestic market creates favorable conditions for achieving economies of scale. Second, close ties within technological chains provide the necessary stability and more resources for the

technological race.

The volume of mutual trade in goods in 2014 was \$57.4 billion, or 89% of the 2013 level.

The volume of mutual trade in goods in 2015 was \$45.4 billion, or 74% of the 2014 level.

The volumes of mutual trade by directions are characterized by the data given in Table 2.

**Table 2 - Volume of mutual trade between EAEU countries, million U.S. dollars**

Countries	2011.	2012	2013	2014	2015	2015 to 2014,%
Armenia – Belarus	32,8	45,4	41	38,3	33,3	86,9
Armenia – Kazakhstan	6,7	4,5	8,1	7,3	5,6	76,7
Belarus – Kazakhstan	778,7	898,7	928,7	940,8	572,4	60,8
Belarus – Kyrgyzstan	225,9	153,1	110,8	95,3	69	72,4
Kazakhstan – Kyrgyzstan	751,1	1 035,9	1054	1206,5	863,6	71,6
Kazakhstan – Russia	22330,6	23096,6	23 847	20196,2	15187,6	75,2
Kyrgyzstan – Armenia	0,4	0,9	1,1	0,5	0,5	100
Kyrgyzstan– Russia	1443,3	1853,2	2182,1	1856,8	1454,4	78,3
Russia – Armenia	1007,4	1194,5	1332,1	1397	1274,2	91,2
Russia – Belarus	39991,6	43861,1	39774,3	3774	25928,2	687,0
EAEU	66568,5	72143,9	69249,2	63112,7	45379,8	71,9

Source: Eaeunion data

The largest volume of mutual trade is between Russia and other EurAsEC member countries. Thus, in 2011 Russia's mutual trade with Kazakhstan was \$22.3 billion, but declined in 2015 to \$15.2 billion. The largest volume of mutual trade within the Union is between Russia and Belarus. During the period under study, this indicator increased almost 7-fold and amounted to \$2,528 billion in 2015. This fact allows us to conclude that Russia and Belarus are the key partners of each other in the domestic trade within the integration grouping.

Trade volumes of the Republic of Kazakhstan in 2015 decreased, especially with the Republic of Belarus. In 2015, trade between Russia and Kazakhstan decreased by 24.8% compared to 2014 and amounted to \$15.5 billion.

The Republic of Armenia reduced the volume of mutual trade with all the countries of the integration grouping in 2015. The key partner within the Union, as well as with all other member states, is Russia; trade volume in 2015 was \$1,274 billion, which is 91.2% of the 2014 level.

After joining EAEU, the Republic of Kyrgyzstan is active trade with the rest of the member countries of the union. But in 2015, the volume of Kyrgyzstan's trade with other member countries decreased significantly.

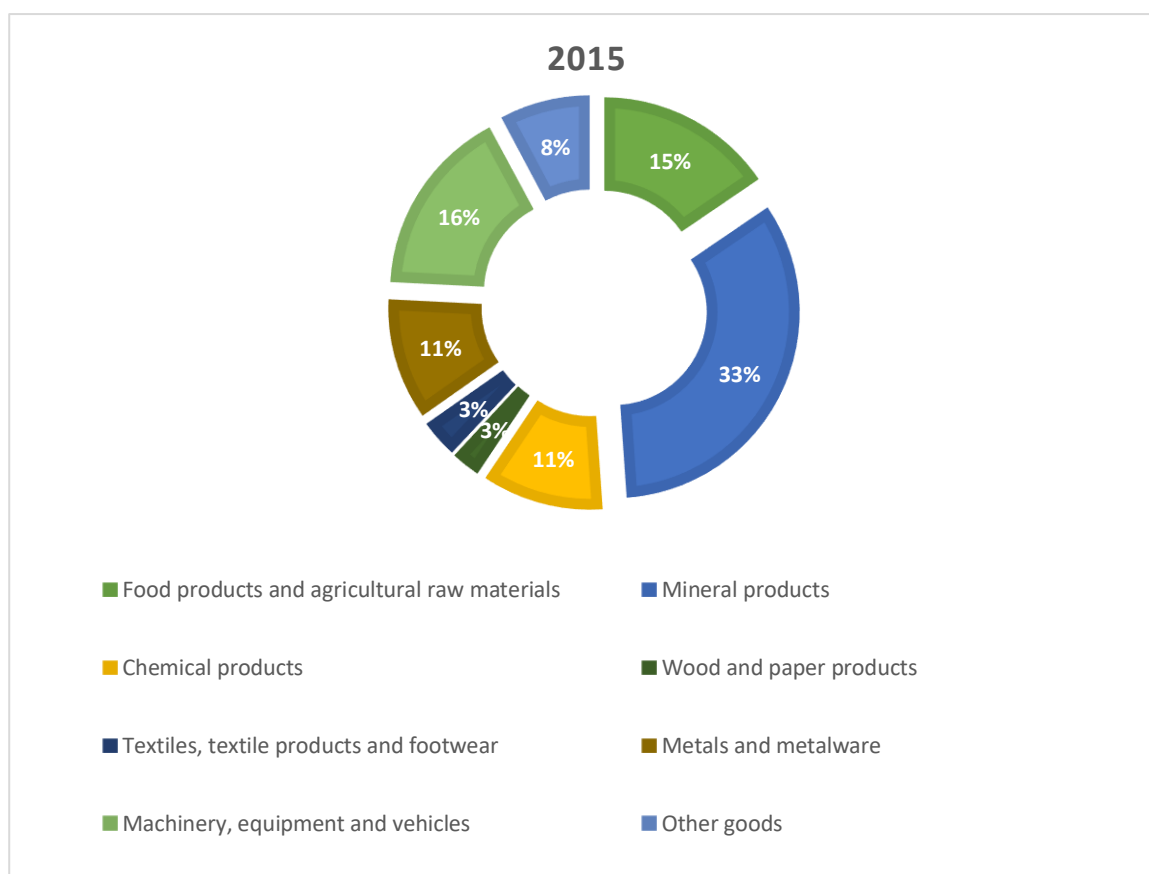
Russia is the unconditional leader in terms of total exports in the period from 2011 to 2015,

its share for the period under study is 63.5%. This means that the mutual trade of EurAsEC member countries is dominated by Russian exports.

Overall, the volume of mutual trade in EurAsEC decreased to 45 billion dollars, which is mainly due to the decline in exchange rates of currencies against the U.S. dollar. The structure of mutual trade by aggregated commodity groups in Graph 5 shows the structure of mutual trade over 2015.

Mineral products have the largest specific weight in the commodity structure of mutual trade of EAEU member states (33.4% of mutual trade volume), 81.7% of which is supplied to the EAEU market by the Russian Federation. (Eurasian Economic Union, 2021)

**Graph 5 - Structure of mutual trade of the EAEU countries, 2015 (in %)**



Source: Eaeunion data

The supply of machinery, equipment and transport vehicles is significant (16.4% of the volume of mutual trade), of which 60% falls on the Russian Federation and 37.1% on the Republic of Belarus.

The share of food products and agricultural raw materials is 15.2% of the mutual trade volume, of which 56% falls on the Republic of Belarus and 34.7% - on the Russian

Federation. Deliveries of metals and metal products account for 10.6% of the volume of mutual trade, of which 67.2% falls on the Russian Federation.

The share of machinery and equipment in the mutual trade of EAEU member states decreased during the period under study. First, in 2014 this indicator increased by 2%, but in 2015 there was a decrease by 6% and the share of machinery and equipment was set at 16%. The share of other groups of goods in mutual trade practically did not change during the study period.

## 4.2 Structure of the EAEU' trade

The potential of the new integration association is unique. The question is how the member countries will be able to use this potential to strengthen the EAEU and make it a regional and global leader. Global experience shows that the sustainability of an integration association is directly dependent on the economic component, i.e. on the positive economic effect that each member country receives. The economic effect of Eurasian integration for the member states benefits of the EAEU are distributed very unevenly among its members. Although it is still difficult to give exact calculations, but the EAEU project brings more economic benefits to Russia's partners. For example, the Russian Federation transferred about \$6.5 billion to Belarus just for the signing of the EAEU Treaty. This amount consisted of a \$2.5 billion loan and \$3.5-4 billion of non-returned duties from the sale of oil products made of Russian oil. The system of distribution of revenues from import customs duties on the territory of the EAEU also brings our partners serious dividends. First, as Table 1 shows, after the admission of new member countries to the EAEU, the redistribution of import duties took place at Russia's expense.

**Table 3-The import duty distribution system in the EAEU**

Country	Initial distribution of import duties %	Distribution of import duties after accession of Armenia and Kyrgyzstan	Percentage of redistribution of import duties
Russian Federation	85,9	85,32	-2,65
Belarus	4,7	4,56	-0,14
Kazakhstan	7,33	7,11	-0,22
Armenia	-	1,11	-
Kyrgyzstan	-	1,9	-

Source: Eaeunion data

Second, the reorientation of export flows has led to the fact that Russia's EAEU allies receive amounts many times higher than they would have received outside the Customs Union. The replacement of Russian transport routes from China via the Russian Far East to Europe by Kazakhstani routes due to the relative ease of crossing Kazakhstan's customs border and the low cost of road freight transportation in the first six months of 2015 alone, according to Kazakhstani statistics, increased transit revenues and the freight flow itself through the country fourfold, and over the past five years the transit traffic along the China-European Union route has increased 17-fold. All this led to huge losses for Russian logistics companies and carriers and became the reason for an open letter to the President of Russia, the Chairman of the Government, the management of the Federal Customs Service of the Russian Federation on behalf of Russian participants of foreign economic activity. Kazakhstan has set itself as a strategic goal to create a transport and logistics hub.

The anti-Russian sanctions have also brought considerable benefits to Russia's EAEU partners. For example, according to experts' calculations, over the 2015, Belarusian food exports increased to \$2.3 billion. From January to September 2015 alone, the increase in quantitative indicators of Belarusian exports was as follows: for fruits and nuts - 463.0 thousand tons (2.4 times); for vegetables - 172.4 thousand tons (72.4%); for fruits and nuts - 463.0 thousand tons (2.4%). tons (by 72.4%); for dairy products - 80.5 thousand tons (by 11.4%); for meat and edible meat products - 7 thousand tons (by 3.7%); for fish and crustaceans, mollusks - 5.8 thousand tons (by 49.1%); for live animals - 962 tons (by 4 times). On January 1, 2016. Russia imposed a food embargo on Ukraine. With free movement of capital and remaining differences in the business environment in the EAEU countries (Table 5), Russian companies, primarily from central regions of Russia and Siberia, began to move their production and economic activities to Kazakhstan. (Eurasian Economic Union, 2021)

**Table 4- Maximum tax rates in EAEU member states %**

Country	Income tax	Tax value added tax	Individual income tax	Insurance premiums
Belarus	18	20	12	29
Kazakhstan	15	12	10	11
Russia	20	18	13	30

Armenia	5 (2% for exporters)	16,67	13	5
Kyrgyzstan	10	12	17	–

Source: Eaeunion data

The difference in taxation may soon facilitate the start of transferring Russian companies to Armenia. It should be noted that the Treaty on the Eurasian Economic Union only obliges member states to harmonize excise taxes on key goods - alcohol and tobacco products, but there are no obligations on tax rates. This is a matter of national competence. Obviously, it needs to be resolved. The difference in business conditions, common market conditions, and the investment policy of attracting foreign direct investment through the creation of Free economic zones (FEZ) turn Kazakhstan and Belarus into China's industrial sites for the Russian market.

**Table 5- Comparison of business conditions in the EAEU countries**

Terms of business	Russia	Belarus	Kazakhstan	Armenia	Kyrgyzstan
Overall ranking	51	44	41	35	67
Contract enforcement security	5	29	9	28	137
Property registration	8	7	21	14	6
Credits	42	109	70	42	28
Investor protection	66	57	25	49	36
Solving insolvency issues	51	69	47	71	126
Taxation	47	63	18	41	138
Business registration	41	12	21	5	35
International trade	170	25	122	29	83
Building permits	119	34	92	62	20
Connection to the power supply system	29	89	71	99	160

Source: Eaeunion data

In November 2011, to deepen and develop relations with China, the president of Kazakhstan signed a decree on the creation of the free economic zone "Khorghos - Eastern

Gate" (Khorgos). The free economic zone is in the territory of the two states. Total area of Khorgos is 528 hectares, including 185 hectares in Kazakhstan and 343 hectares in China. According to the plan, the economic zone will include: a network of trade and exhibition complexes and a site for negotiations; a dry port - a transport and logistics complex; an industrial zone - a complex of industrial enterprises; a residential zone; an area of support infrastructure and prospective development<sup>30</sup>.

Naturally, the first residents of the park have already been the Chinese company ZTE - the largest manufacturer of telecommunications equipment and cell phones - and the Zhejiang Corporation.

Geely Holding Group is the largest Chinese automaker, whose main task is to expand its presence in the Russian market. The Russian Federation cannot cope with such a new phenomenon as the use by Russian participants in foreign economic activity of schemes of fictitious import and illegal export of capital.

The point is that in the absence of customs control between countries, Russian companies began to conclude fictitious contracts for the purchase of any goods with companies from Kazakhstan or Belarus, which act as agents of companies from third countries. As a result, there is no way to trace the real passage of goods, and payment for goods is made by Russian companies directly to third countries. Thus, the old problem of capital flight from the country has received another poorly controlled scheme.

According to the Central Bank of the Russian Federation, in 2012 about \$15 billion was withdrawn from Russia through Belarusian companies and about \$10 billion through Kazakh companies with the help of fictitious import schemes. In fact, the scale of fictitious import operations is comparable to the volume of confirmed imports from Kazakhstan and Belarus to Russia. Capital flight from Russia is by no means a new problem, but there is every chance that it will soon become even worse. On November 5, 2015, Kazakhstan adopted the Constitutional Law on the Astana International Financial Center (AIFC). As early as 2018 the International Financial Center will start operating in the country. MFCA residents will be exempt from taxes for 50 years, they will be provided with free class "A" offices for two years, visa-free regime for five years, and their interests will be protected by foreign judges based on Anglo-Saxon law. All documents will be in English.

Thus, at present, the Eurasian Economic Union, based on the costs incurred by the Russian Federation and the benefits it receives, is a geopolitical project.



The slowdown in Russia's economic growth and financial difficulties, which, according to forecasts, will only worsen, can change the vector of foreign economic policy of member countries. According to experts, today the real sector of Kazakhstan is integrated with Russia no more than 15%, with Belorussia much less, whereas with European and Chinese capital - 70-80%.

Thus, while the share of the EU makes up on average 40-45% of all direct investments in Kazakhstan, the USA 10.2%, China 9.4%, the share of Russia does not exceed 5.6%, that of Belarus 0.7%, Armenia and Kirghizstan 0%. Russia's share in gross direct investments in Belarus is quite high, in 2013 it was 52.47%, and its share in the gross inflow of all investments is also high - 48.6%. At the same time, there is practically no cooperation between Belarus and Kazakhstan in the investment sphere. The EU has the second largest share in investments. A similar situation is in Armenia: Russia's share in accumulated investments is 49.44% and in FDI - 55.79%. The share of the EU in the accumulated FDI does not exceed 14%, China - 0.09%, the share of Kazakhstan and Belarus - 0%. When analyzing the inflow of direct investments, qualitative indicators are no less important than quantitative ones. Thus, despite the relatively small share of China in Kazakhstan's FDI market, the influence of the latter is enormous. It is connected, first of all, with the dominance in the key for Kazakhstan oil industry. We can rightfully conclude that it is too early to talk about the economic success of Eurasian integration; rather, about the success in forming the legal framework.

Therefore, the main task today is to strengthen economic ties between EAEU member countries through identifying and creating common economic interests, primarily in such critical areas as industry and agriculture, as well as through the adoption and implementation of a common industrial and agricultural policy.

Based on the economic provisions of the EAEU Treaty, the division of the overall macroeconomic effect of integration is divided into several points:

- reducing the price category of goods by reducing the cost of the services of transporting raw materials or, on the contrary, to export their finished goods;
- promotion of "healthy" competition in the mutual market of the organization and by maintaining an equal level of economic development;
- with the help of the players of the international community, competition in the common market of Customs Union member countries increases;

- to increase productivity and reduce the level of costs with further increase in employees' wages;
- increasing demand for goods and services by increasing production;
- by increasing the population employed in production and reducing food prices to increase the welfare of citizens of EAEU member countries;
- by increasing the volume of the market to increase the return on new goods and services;
- to increase the GDP volume of EAEU member states by 25%.

It is important to make a reservation that the articles of the agreement signed between the countries are of a compromise nature, which explains the fact that a few tasks have not been implemented so far, namely, according to the latest news on the official website of the EAEU, the solution of these issues has been postponed until 2025 or indefinitely:

- the creation of a common financial regulator;
- universal energy trade policy issues;
- problems of restricting trade operations between the member countries of the association.

There are several problems, which at this stage of the community's development, in the context of the "period of sanctions" hinder the interaction of the EAEU member states.

As indicated earlier, the EAEU has a unified economic policy on the part of all member countries. However, in 2014, when Russia imposed sanctions on several countries of the world, no similar decisions were taken by Belarus and Kazakhstan, which, in turn, violates the basic principle of the organization's existence. In this context, the problem arises, which is that there is an opportunity to import raw materials and goods through these states from the countries against which sanctions have been imposed.

At the moment, there are great prospects for the EAEU's further development and its establishment as an integration model, which will be able to compete with such major associations as Mercosur, the EU, OPEC, and become one of the competitors of a military bloc such as NATO. The common interest of the EAEU member states is to further develop and deepen cooperation between states in the field of taxation.

It is assumed that the countries will be able to achieve common development of tax reforms, as well as economic policy coherence in the framework of mutual trade turnover. The main thing in this case is to create conditions in which the development of the tax

legislation of the countries will avoid such problems as double taxation or the reduction of the volume of tax liabilities.

In 2015, as part of the discussion at the Gaidar Forum on the future prospects of the EAEU, figures were announced on the growth of the economies of the EAEU member states. Based on the calculation that the decline in the level of GDP in Russia will not last more than two years and in the conditions that the stagnant economy will be replaced by steady growth, it is expected that by 2020 the interaction within the EAEU will give about 15% of GDP growth compared to 2014.

For Kazakhstan, the outlook is even better, as it is expected that the country's GDP growth by 2030 will be at least 25 %. Rather skeptical forecasts for Russia. It is expected that the GDP growth will be about 3%. However, it is worth noting that participation in the EAEU will give other advantages to Russia:

1. Despite the imposition of sanctions by the West, as well as the expected decline in GDP, the process of integration between the EAEU countries continues.
2. Participation in the EAEU will increase the level of attractiveness of doing business, as well as attract new investors in various sectors of the Russian economy.
3. Further development of the EAEU in the post-Soviet space will lead to the strengthening of Russia's position in BRICS.

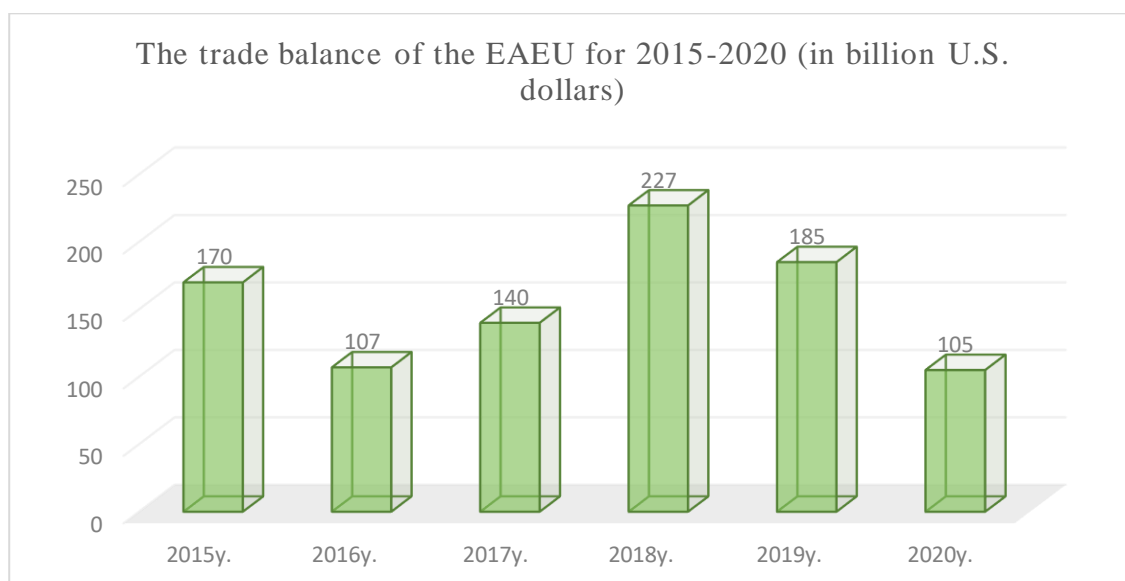
It is believed that the Eurasian Union is more important for Russia than the Mercosur integration organization for Brazil.

Since 2013, mutual trade between EAEU member states has been demonstrating negative dynamics. The most difficult situation was observed in 2015. The volume of mutual trade in value terms decreased by 25.5% compared to 2014. In 2016, the decline in mutual supplies significantly slowed down and at the end of 2016 the reduction was 6.7%.

#### **4.2.1 Foreign trade**

It can be noted that the trade balance has been positive throughout the EAEU's existence (since 2015). This suggests that goods produced in the EAEU are in demand in third countries. Despite the short period of EAEU existence, we can see that the trade balance has positive dynamics.

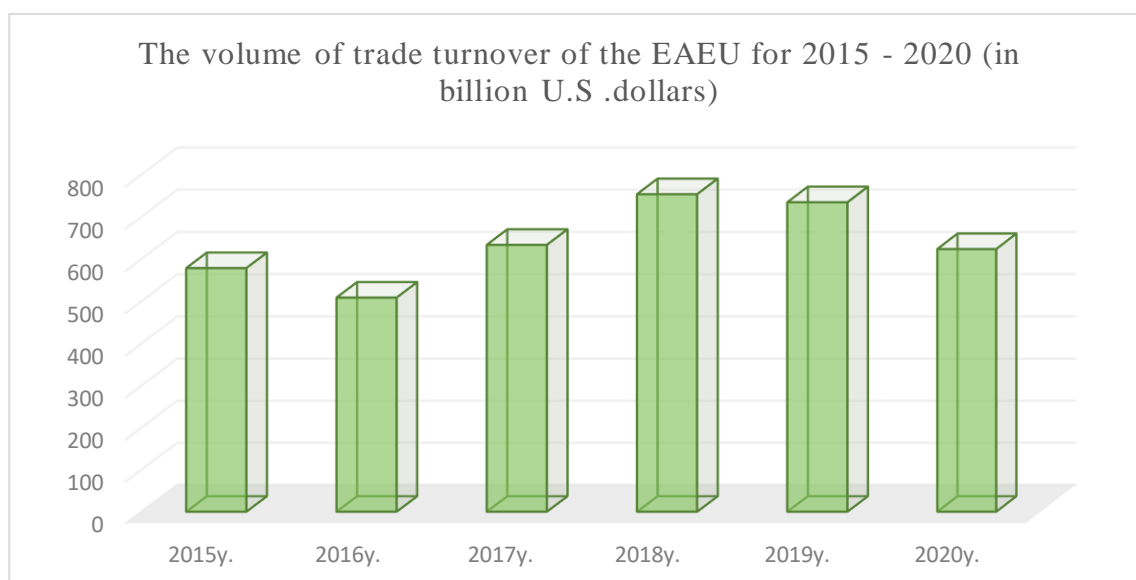
**Graph 6- The trade balance of the EAEU for 2015-2020. (in billion U.S. dollars)**



Source: Eaeunion data

The similar picture with the trade balance when we look at the volume of trade turnover over the same period of time (See Fig.2). Consequently, we can conclude that the volume of trade with third countries is increasing, especially in the direction of exports.

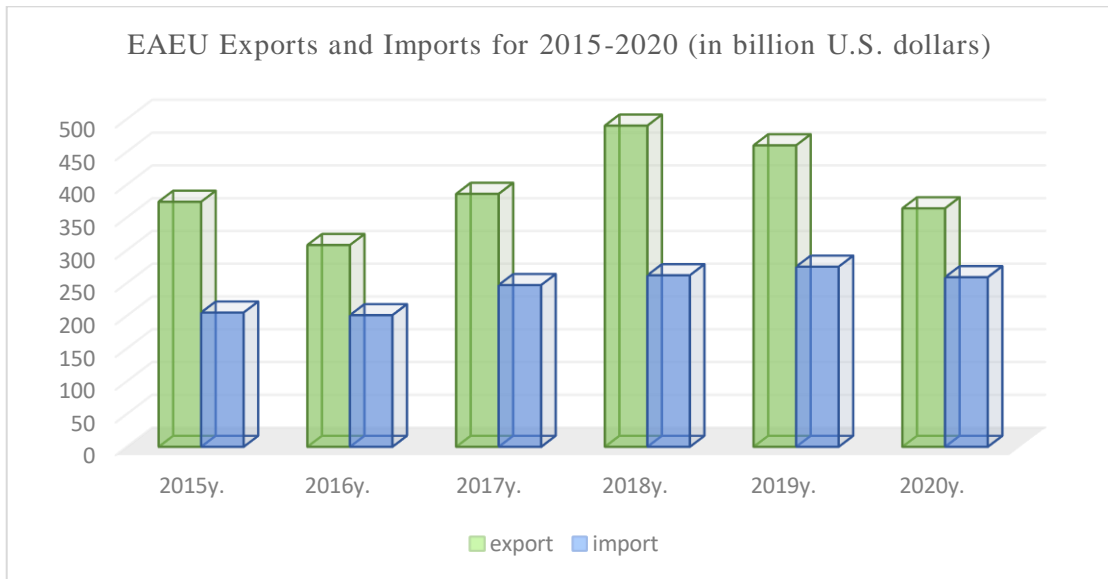
**Graph 7- The volume of trade of the EAEU for 2015-2020. (in billion U.S. dollars)**



Source: Eaeunion data

In total, EAEU foreign trade for 2018 was more than \$500 billion, showing a growth of more than 25% over the last year. In 2019, the figures for the first five months are similar to last year; however, given the new sanctions against Russia, there may be some slowdown in trade growth, as Russia is clearly the leader in all key trade indicators in the EAEU.

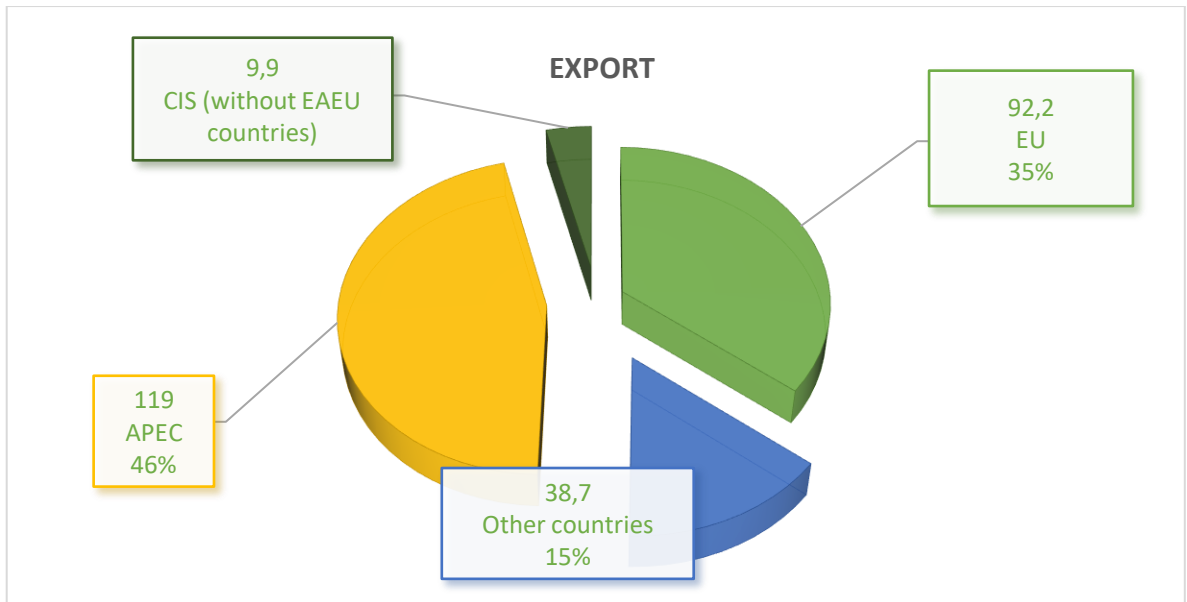
**Graph 8 - EAEU Exports and Imports for 2015-2020 (in billion U.S. dollars)**

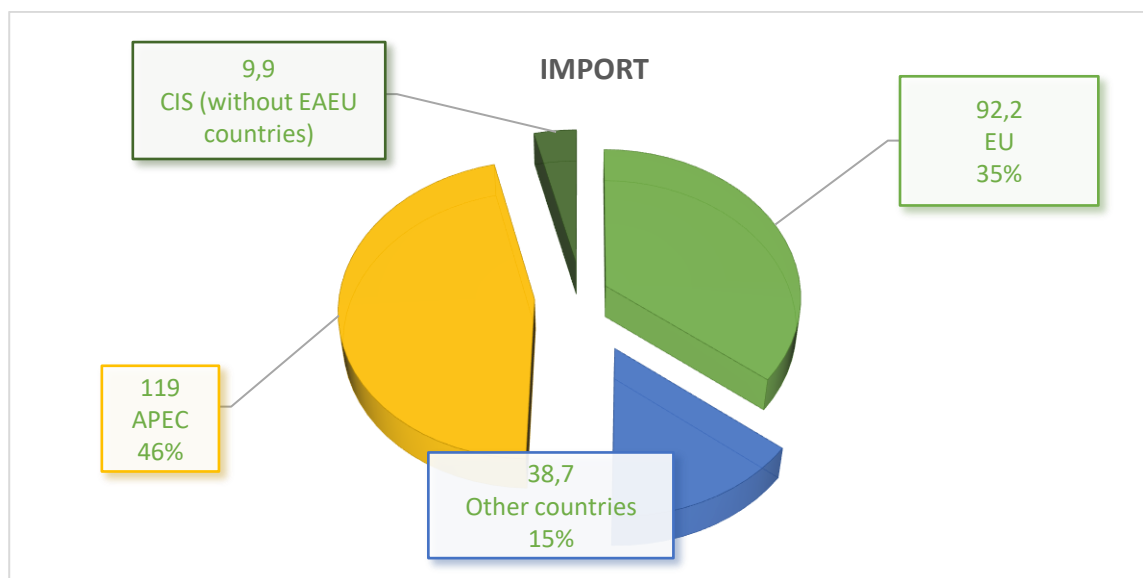


Source: Eaeunion data

The Graph 8 exports are increasing much faster, showing double-digit growth numbers, compared to imports of goods. On the other hand, we have similar import figures for 2019 and a slight decrease on the export side compared to the same period last year

**Graph 9- Distribution of the volume of foreign trade of the EAEU member states by groups of countries for 2020 (billions of US dollars / share of a group of countries, %)**





Source: Eaeunion data

The main buyer of goods exported by the EAEU member states is the European Union – 37.6% (in January – December 2019 – 44.9%). Among the countries of the European Union, the most significant supplies of goods are to the Netherlands – 7.9% (in January – December 2019 – 10.9%), Germany – 5.4% (6.5%), Italy – 4.6% (5%), Poland – 3.1% (3.2%). 29.7% of exported goods were delivered to APEC countries (27.8% in January – December 2019), of which 16.4% (14.4%) were delivered to China, 3.7% (4.2%) to South Korea, and 3.2% (3.1%) to the USA. The CIS countries (excluding the EAEU countries) account for 6.3% of exports (in January – December 2019 – 5.3%).

Imports are concentrated in the APEC countries – 45.8% (in January –December 2019 – 44.7%), the European Union – 35.5% (36%). In the APEC countries, the largest volumes are accounted for by China – 25.5% (in January – December 2019 – 24.4%), the USA – 5.7% (5.6%), South Korea – 4.7% (4.2%), Japan – 3% (3.6%).

Among the countries of the European Union, Germany is the leader in imports of the EAEU – 10.5% (in January – December 2019 – 10.5%), Italy 4.6% (4.9%), France 3.6% (3.5%). CIS countries account for 3.8% of imports (in January – December 2019 – 4.2%).

#### 4.2.2 Mutual trade

The mutual exchange of member countries is an indicator of the effective and sustainable functioning of each integration association in terms of exchanges and its positive impact on the economies of member countries. During the existence of the EAEU, the

conditions for stimulating foreign trade, international communication and the development of national economies have been met.

The creation of a single market, the pooling of resources and assets within the EAEU has several advantages.

1. The larger domestic market creates better conditions for achieving economies of scale.
2. There is an opportunity to create links within production chains.
3. Access to a larger market for companies and the possibility of greater choice for buyers of goods.

The volume of mutual trade in January-December 2015, calculated as the sum of value volumes of export operations of the member states of the Eurasian Economic Union (EAEU) in mutual trade, was 45.4 billion US dollars or 74% of the level of January-December 2014. The volume of exports of the member states of the Eurasian Economic Union was \$45.4 billion, or 74.2% of the level of January - December 2014. The volumes of mutual trade by direction are characterized by the data given in Table 6.

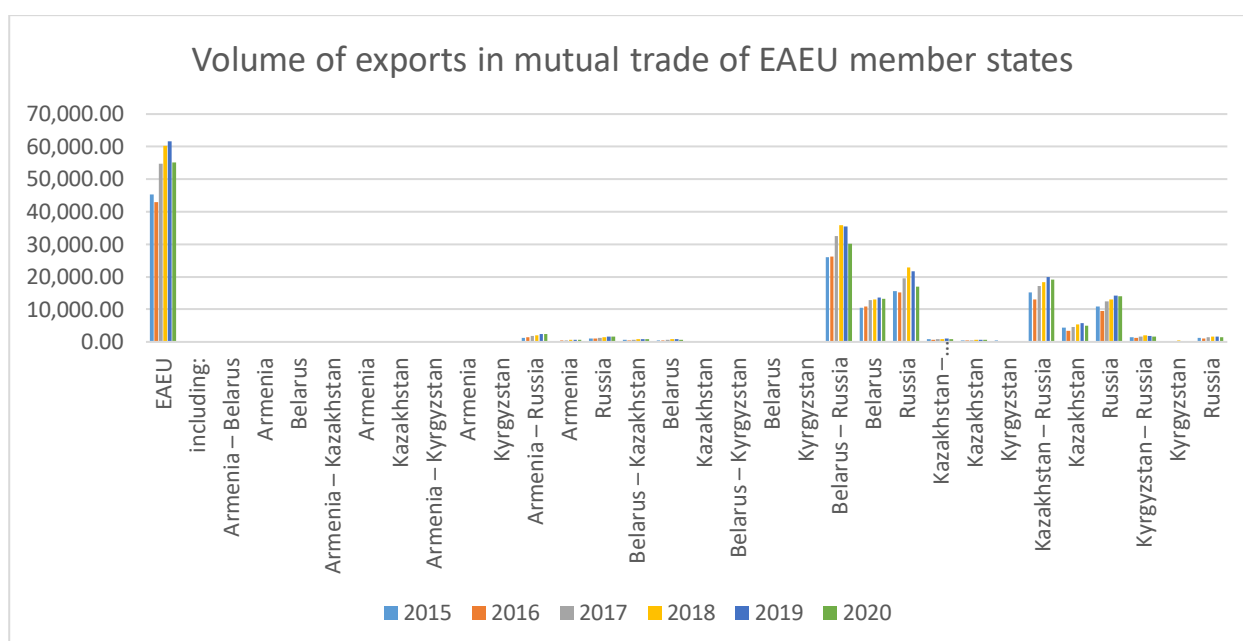
**Table 6- Volume of exports in mutual trade of EAEU member states 2015-2020 (million U.S. dollars)**

	2015., Million U.S. dollars	2016, Million U.S. dollars	2017 Million U.S. dollars	2018 Million U.S. dollars	2019 Million U.S. dollars	2020 Million U.S. dollars
<b>EAEU</b>	<b>45 379,8</b>	<b>42 958,7</b>	<b>54 697,9</b>	<b>60 261,5</b>	<b>61 634,0</b>	<b>55 053,9</b>
including:						
<b>Armenia – Belarus</b>	<b>33,3</b>	<b>35,4</b>	<b>41,5</b>	<b>49,4</b>	<b>70,6</b>	<b>78,8</b>
Armenia	5,5	13,4	7,0	11,9	17,9	21,3
Belarus	27,8	22,0	34,5	37,5	52,7	57,5
<b>Armenia – Kazakhstan</b>	<b>5,6</b>	<b>5,6</b>	<b>10,5</b>	<b>14,7</b>	<b>9,8</b>	<b>13,0</b>
Armenia	4,9	5,0	4,9	9,8	5,4	6,6
Kazakhstan	0,7	0,6	5,6	4,9	4,4	6,4
<b>Armenia – Kyrgyzstan</b>	<b>0,5</b>	<b>1,0</b>	<b>1,9</b>	<b>1,1</b>	<b>3,4</b>	<b>2,1</b>
Armenia	0,3	1,0	1,8	1,0	3,2	1,6
Kyrgyzstan	0,2	0,0	0,1	0,1	0,2	0,5
<b>Armenia – Russia</b>	<b>1 274,2</b>	<b>1 337,0</b>	<b>1 790,5</b>	<b>2 017,0</b>	<b>2 433,6</b>	<b>2 340,8</b>
Armenia	225,9	374,5	543,5	665,8	742,7	680,4
Russia	1 048,3	962,5	1 247,0	1 351,2	1 690,9	1 660,4
<b>Belarus – Kazakhstan</b>	<b>572,4</b>	<b>411,1</b>	<b>693,5</b>	<b>888,6</b>	<b>872,3</b>	<b>806,9</b>
Belarus	524,7	363,9	592,3	783,5	765,5	729,6
Kazakhstan	47,7	47,2	101,2	105,1	106,8	77,3
<b>Belarus – Kyrgyzstan</b>	<b>69,0</b>	<b>52,0</b>	<b>130,6</b>	<b>132,5</b>	<b>73,8</b>	<b>70,9</b>
Belarus	55,4	48,7	123,5	120,5	60,7	60,2
Kyrgyzstan	13,6	3,3	7,1	12,0	13,1	10,7
<b>Belarus – Russia</b>	<b>25 928,2</b>	<b>26 199,0</b>	<b>32 474,6</b>	<b>35 913,7</b>	<b>35 400,5</b>	<b>30 101,5</b>
Belarus	10 390,3	10 950,2	12 900,8	12 990,7	13 690,8	13 161,7
Russia	15 537,9	15 248,8	19 573,8	22 923,0	21 709,7	16 939,8

<b>Kazakhstan – Kyrgyzstan</b>	<b>863,6</b>	<b>701,8</b>	<b>785,3</b>	<b>927,2</b>	<b>971,2</b>	<b>867,0</b>
Kazakhstan	495,0	437,2	516,7	656,9	624,1	581,0
Kyrgyzstan	368,6	264,6	268,6	270,3	347,1	286,0
<b>Kazakhstan – Russia</b>	<b>15 178,6</b>	<b>13 005,6</b>	<b>17 104,5</b>	<b>18 321,1</b>	<b>19 957,8</b>	<b>19 058,7</b>
Kazakhstan	4 343,3	3 445,2	4 639,1	5 279,9	5 670,9	5 007,2
Russia	10 835,3	9 560,4	12 465,4	13 041,2	14 286,9	14 051,5
<b>Kyrgyzstan – Russia</b>	<b>1 454,4</b>	<b>1 210,2</b>	<b>1 665,0</b>	<b>1 996,2</b>	<b>1 841,0</b>	<b>1 714,2</b>
Kyrgyzstan	157,3	177,6	265,7	358,2	281,3	257,3
Russia	1 297,1	1 032,6	1 399,3	1 638,0	1 559,7	1 456,9

Source: Eaeunion data

**Graph 10 – Volume of exports in mutual trade of EAEU member states 2010-2020(million. U.S. dollars)**



Source: Eaeunion data

According to updated data, the volume of mutual trade in goods in January-December 2016, calculated as the sum value of export transactions of the member states of the Eurasian Economic Union in mutual trade was 43 billion US dollars or 94% of the level of January-December 2015. The volume of exports in mutual trade was \$43 billion, or 94.2% of the level of January-December 2015.

Compared with January-December 2015, the share of mutual trade in the total foreign trade of the EAEU increased from 13.6% to 14.4%. The share of mutual trade for the Republic of Armenia increased from 26.5% to 29%, for the Republic of Belarus - from 49.5% to 52.3%, for the Republic of Kazakhstan - from 21.3% to 22.2%, for the Russian Federation - from 8.2% to 8.8%. For the Kyrgyz Republic there was a decrease from 43.5% to 37.2%.



Compared with January-December 2015, the proportions in mutual trade changed. The share of the Republic of Armenia in mutual exports increased from 0.6% to 0.9%, the Republic of Belarus - from 24.1% to 26.5% and the Kyrgyz Republic - from 0.9% to 1%. The share of the Republic of Kazakhstan in mutual exports decreased from 11.2% to 9.1% and that of the Russian Federation from 63.2% to 62.5%.

According to updated data, the volume of mutual trade in goods in January-December 2017, calculated as a sum of the value of export transactions of the Eurasian Economic Union member states in mutual trade was \$54.7 billion.

The volume of exports in mutual trade amounted to \$54.7 billion, or 127.3% of the level of January-December 2016. Compared with January-December 2016, the share of mutual trade in the total foreign trade of the EAEU increased from 14.4% to 14.6%. The share of mutual trade for the Republic of Armenia increased from 29% to 29.6%, for the Republic of Belarus - from 52.3% to 52.5%, for the Republic of Kazakhstan - from 22.2% to 22.8%, for the Kyrgyz Republic - from 37.2% to 38.4%, for the Russian Federation - from 8.8% to 9%. (Eurasian Economic Union, 2021)

According to updated data, the volume of mutual trade in goods between member states of the Eurasian Economic Union in 2018, calculated as the sum of the value of export transactions of EAEU member states in mutual trade, was \$60.3 billion. The volume of exports of EAEU member states in mutual trade amounted to \$60.3 billion, or 110.1% of the 2017 level.

The growth of the monetary volume of mutual trade of EAEU member states (by 10.1%) was caused both by an increase in average prices for goods (by 2.5%) and by an increase in the physical volume of trade (by 7.4%). The increase in prices determined 25% of the growth in the value indicator, while the increase in the commodity volume determined 75%.

The volume of mutual trade in goods between member states of the Eurasian Economic Union in January - December 2019, calculated as the sum of the value of export transactions of EAEU member states in mutual trade, was \$61.6 billion. The volume of exports of EAEU member states in mutual trade amounted to \$61.6 billion, or 102.3% of the level of January-December 2018.

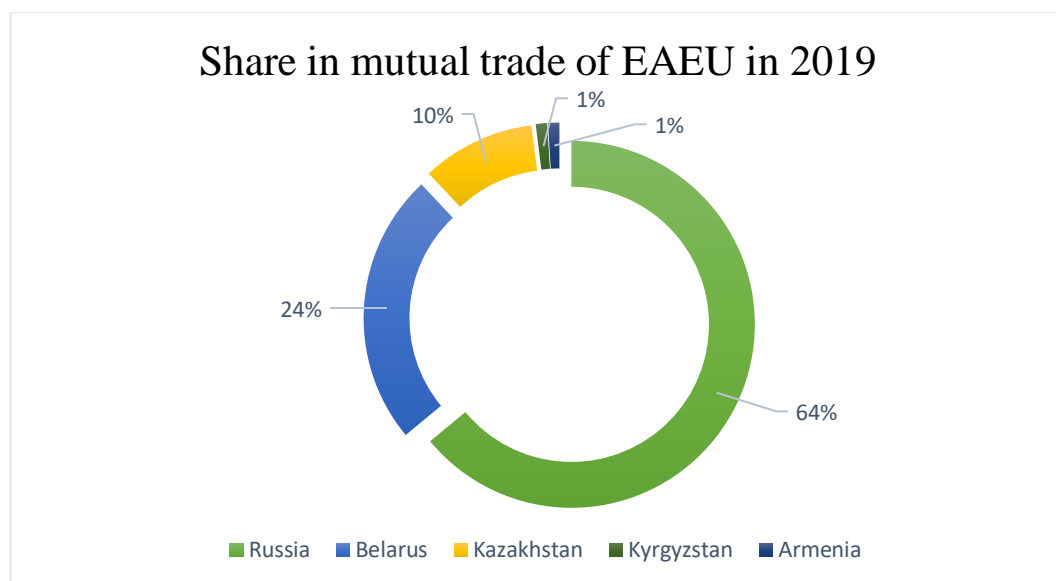
The volume of mutual trade in goods between member states of the Eurasian Economic Union in January - December 2020, calculated as the sum of the value of export transactions of EAEU member states in mutual trade, was \$55.1 billion.

The share of energy goods in mutual trade of the EAEU member states decreased most significantly, from 21.6% in January - December 2019 to 17.1% in January - December 2020. The share of consumer goods increased and amounted to 28.4% (25.5% in January - December 2019), the share of investment goods decreased and amounted to 8.7% in January - December 2020. 8.7% against 9.1% in January - December 2019.

The volume of trade within the EAEU in 2018 amounted to more than \$ 60 billion, showing a 10% increase compared to last year. However, the first months of 2019 showed a certain decline in mutual trade, indicating a level of 95% of the turnover of the previous year.

Figure 7 shows that Russia accounts for a large share of mutual trade in the EAEU, accounting for more than 60% of all trade, while the total participation of Armenia and Kyrgyzstan in trade is no more than 2%. Thus, considering also the size of the economies, it is safe to say that these countries do not greatly affect the economic indicators of the Union. It is also worth noting that Russia is the main trading partner for all countries inside the NPP, while Belarus is the largest trading partner for Russia.

**Graph 11 – Share in mutual trade of EAEU in 2020 (in %)**



Source: Eaeunion data

2018 was a successful year. The pre-crisis level of trade was almost reached and growth of more than 10% compared to the previous year was shown. However, as in the case of foreign trade, a certain slowdown is noticeable in the first months of 2019. Compared to the same period last year, we see a 5% reduction in mutual trade. As in 2015, the decline in trade in 2019 can be explained by the decline in exchange rates against the US dollar, falling oil prices, as well as new sanctions imposed against the largest economy of the EAEU.

## 4.3 Regression model

### 4.3.1 One-Equation Model

- **Assumption**

- If there is an increase in GDP of Republic of Kazakhstan, the turnover of EAEU will be increasing too
- If there is an increase in GDP of Russian Federation, the turnover of EAEU will be increasing too
- If there is an increase in GDP of Republic of Belarus, the turnover of EAEU will be increasing too
- If there is an increase in GDP of Republic of Armenia, the turnover of EAEU will be increasing too
- If there is an increase in GDP of Kyrgyz Republic, the turnover of EAEU will be increasing too

- **Economic Model**

$$y_{1t} = (X_{1t}, X_{2t}, X_{3t}, X_{4,t}, X_{5,t}, X_{6,t})$$

- **Econometric Model**

$$y_{1t} = \gamma_{11}X_{1t} + \gamma_{12}X_{2t} + \gamma_{13}X_{3t} + \gamma_{14}X_{4t} + \gamma_{15}X_{5t} + \gamma_{16}X_{6t} + u_{1t}$$

- There are 12 observations

- Declaration of variables

- $y_{1t}$  : trade turnover between the EAEU member states in billion U.S. dollars
- $X_{1t}$  : Intercept term
- $X_{2t}$  : GDP of Republic of Kazakhstan in billion U.S. dollars
- $X_{3t}$  : GDP of Russian Federation in billion U.S. dollars
- $X_{4t}$  : GDP of Republic of Belarus in billion U.S. dollars
- $X_{4t}$  : GDP of Republic of Armenia in billion U.S. dollars
- $X_{4t}$  : GDP of Kyrgyz Republic in billion U.S. dollars
- $u_{1t}$  : Error term at time t

### 4.3.2 Data Set

**Table 7- Data set for one equation model (in billion U.S. dollars)**

	Trade turnover between the EAEU member states	GDP of Republic of Kazakhstan	GDP of Russian Federation	GDP of Republic of Belarus	GDP of Republic of Armenia	GDP of Kyrgyzstan Republic	Intercept Term			
year	billion U.S. dollars	billion U.S. dollars	billion U.S. dollars	billion U.S. dollars	billion U.S. dollars	billion U.S. dollars	Unit Vector			
<b>T</b>	<b>y1t</b>	<b>x2t</b>	<b>x3t</b>	<b>x4t</b>	<b>x5t</b>	<b>x6t</b>	<b>x1t</b>	<b>d_x3t</b>	<b>d_x4t</b>	<b>d_x5t</b>
2010	47 134	148,05	1632,84	57,22	9,26	4,79	1			
2011	63 100	200,38	2044,00	61,76	10,14	6,20	1	411,2	4,54	0,88
2012	67 856	215,9	2202,67	65,69	10,62	6,61	1	158,7	3,93	0,48
2013	64 520	243,78	2289,24	75,53	11,12	7,34	1	86,57	9,84	0,50
2014	61 183	227,44	2056,58	78,81	11,61	7,47	1	- 232,7	3,29	0,49
2015	45 379	184,36	1363,70	56,45	10,55	6,68	1	- 692,9	- 22,36	-1,06
2016	42 959	137,28	1282,66	47,72	10,55	6,81	1	- 81,04	-8,73	-0,01
2017	54 698	159,4	1578,41	54,73	11,53	7,70	1	295,8	7,00	0,98
2018	60 262	170,54	1630,66	60,03	12,46	8,27	1	52,25	5,30	0,93
2019	61 634	181,67	1693,32	64,41	13,62	8,87	1	62,66	4,38	1,16
2020	55 054	163,23	1491,73	60,26	12,64	7,74	1	- 201,6	-4,15	-0,98
2021	72 611	185,82	1729,56	61,38	13,36	8,01	1	237,8	1,12	0,72

Source: EAEU statistics; Worldbank

### 4.3.2 Correlation Matrix

Before the model estimation and quantification of its parameters, correlation matrix must be done to check the presence of multicollinearity between explanatory variables.

**Table 8- Correlation matrix for original data set**

Observations 2010-2021 (5% critical value (two-tailed) = 0.5760 for n = 12)						
$y_{1t}$	$x_{2t}$	$x_{3t}$	$x_{4t}$	$x_{5t}$	$x_{6t}$	
1.0000	0.6572	0.7324	0.6222	0.4907	0.4255	$y_{1t}$
	1.0000	0.8811	0.8990	0.0382	0.1262	$x_{2t}$
		1.0000	0.8227	-0.0970	-0.0539	$x_{3t}$
			1.0000	0.1847	0.2083	$x_{4t}$
				1.0000	0.9325	$x_{5t}$
					1.0000	$x_{6t}$

Source: autor's calculations in Gretl

The result obtained from Gretl showed that this correlation matrix has a problem with multicollinearity as every variables have coefficient of correlation higher than 0.8.

#### Multicollinearity Elimination

As there is a problem with multicollinearity in the correlation matrix above, an elimination method is needed in order to solve this issue. We decided to transform variable  $x_{2t}$ ,  $x_{3t}$   $x_{4t}$  into the form of 1<sup>st</sup> difference. Thus, a new correlation matrix is obtained from Gretl and also, we can see that the problem with multicollinearity has been solved.

**Table 9- Adjusted correlation matrix**

$y_{1t}$	$x_{2t}$	$d_{x_{3t}}$	$d_{x_{4t}}$	$d_{x_{5t}}$	$x_{6t}$	
1.0000	0.6043	0.6140	0.7089	0.5863	0.2470	$y_{1t}$
	1.0000	0.0673	0.3983	0.1925	-0.1913	$x_{2t}$
		1.0000	0.7058	0.7974	0.0850	$d_{x_{3t}}$
			1.0000	0.7147	0.3362	$d_{x_{4t}}$
				1.0000	0.3532	$d_{x_{5t}}$
					1.0000	$x_{6t}$

Source: autor's calculations in Gretl

### 4.3.3 Parameter Estimation using OLSM in SW Gretl

Estimation of the model is made using OLS method to obtain information which is used for the further model's testing and verification.

**Table 30- Model 1: OLS, using observation 2010-2021**

Observations 2010 - 2021 (T = 12); dependent variable y					
	Coefficien t	Std. Error	t-ratio	p-value	
<i>const</i>	49134.5	29867.2	-1.645	0.1609	
<i>x<sub>2</sub></i>	282.701	70.6640	4.001	0.0103	**
<i>d_x<sub>3</sub></i>	38.7409	12.4767	3.105	0.0267	**
<i>d_x<sub>4</sub></i>	725.802	446.087	-1.627	0.1647	
<i>d_x<sub>5</sub></i>	3505.90	3682.20	-0.9521	0.3848	
<i>x<sub>6</sub></i>	7568.04	2679.79	2.824	0.0369	**

Source: autor's calculations in Gretl

**Table 11-12 - Trade turnover**

<b>Mean dependent var.</b>	59023.18	<b>S.D. dependent var.</b>	8950.933
<b>Sum squared resid.</b>	93484332	<b>S.E. of regression</b>	4323.987
<b>R-squared</b>	0.883318	<b>Adjusted R-squared</b>	0.766637
<b>F(4, 23)</b>	7.570335	<b>P-value(F)</b>	0.022179
<b>Log-likelihood</b>	-103.3631	<b>Akaike criterion</b>	218.7261
<b>Schwarz criterion</b>	221.1135	<b>Hannan-Quinn</b>	217.2212
<b>rho</b>	-0.668565	<b>Durbin-Watson</b>	3.148021

Source: autor's calculations in Gretl

#### Model Verification

From the result obtained from Gretl, the Estimated model is:

$$Y_{1t} = 49134.5 + 282.701x_{2t} + 38.7409x_{3t} + 725.802x_{4t} + 3505.90x_{5t} + 7568.04x_{6t} + u_{1t}$$

#### 4.3.4 Economic verification

- If GDP of Republic of Kazakhstan increase by 1billion than the trade turnover between the EAEU member states will also increase by 282,701 billion U.S. dollars
- If GDP of Russian Federation increase by 1billion than the trade turnover between the EAEU member states will also increase by 38.7409 billion U.S. dollars
- If GDP of Republic of Belarus increase by 1billion than the trade turnover between the EAEU member states will also increase by 725.802 billion U.S. dollars
- If GDP of Republic of Armenia increase by 1billion than the trade turnover between the EAEU member states will also increase by 3505.90 billion U.S. dollars
- If GDP of Kyrgyz Republic increase by 1billion than the trade turnover between the EAEU member states will also increase by 7568.04 billion U.S. dollars

#### 4.3.5 Statistical verification

The table 10-11, shows the result of coefficient determination  $R^2$ , which equals to 0.88 and adjusted  $R^2$  equals to 0.76.  $R^2=0.88$  means that 88% of the variance of coffee production is explained by the independent variables: GDP of Republic of Kazakhstan, GDP of Russian Federation, GDP of Republic of Belarus, GDP of Republic of Armenia, GDP of Kyrgyz Republic. As  $R^2$  is equal to 0.88, therefore, we can say that there is strong correlation between the variables.

Statistical significance of parameters can be tested by using t-value. There are several steps:

1. First, formulate the hypotheses.

$H_0: \gamma = 0$ : parameters are not statistically significant

$H_A: \gamma \neq 0$ : parameters are statistically significant

2. Determine the significance level

The significance level chosen in this project:  $\alpha = 0.05$

3. From t-value and p- value, determine if the null hypothesis is rejected or not rejected.

- Degree of freedom = 5
- With  $\alpha = 0.05$ , the critical value at 15 degree of freedom is 2.015
- If the absolute value of t-value is greater than the critical value, then we reject the null hypothesis. However, if the absolute value of t-value is less than critical value, then we fail to reject the null hypothesis.

**Table 13- t-value**

	Unit vector	$x_{2t}$	$x_{3t}$	$x_{4t}$	$x_{5t}$	$x_{6t}$
<b>t-value</b>	1.645	4.001	3.105	1.627	0.9521	2.824
<b>p-value</b>	0.1609	0.0103	0.0267	0.01647	0.3848	0.0369
<b>critical value (<math>\alpha=0.05</math>)</b>	2.015	2.015	2.015	2.015	2.015	2.015

Source: autor's calculations in Gretl

According to Table 10, we can interpret the results of t-value of each variable.

- t-value for  $x_{2t}$  is 4.001, which is higher than critical value (2.015), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Republic of Kazakhstan and EAEU trade turnover.
- t-value for  $x_{3t}$  is 3.105, which is higher than critical value (2.015), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Republic of Russian Federation and EAEU trade turnover.
- t-value for  $x_{4t}$  is 1,627, which is less than critical value (2.015), therefore, we fail to reject the null hypothesis. There is statistically insignificance between GDP of Republic of Belarus and EAEU trade turnover.
- t-value for  $x_{4t}$  is 0.9521, which is less than critical value (2.015), therefore, we fail to reject the null hypothesis. There is statistically insignificance between GDP of Republic of Armenia and EAEU trade turnover.
- t-value for  $x_{2t}$  is 2.824, which is higher than critical value (2.015), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Kyrgyz Republic and EAEU trade turnover.

According to Table 10, we can interpret the results of p-value of each variable.

- p-value for  $x_{2t}$  is 0.0103, which is less than critical value (0.05), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Republic of Kazakhstan and EAEU trade turnover.



- p-value for  $x_{3t}$  is 0.0267, which is less than critical value (0.05), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Republic of Russian Federation and EAEU trade turnover.
- p-value for  $x_{4t}$  is 0.01647, which is less than critical value (0.05), therefore, we can reject the null hypothesis. There is statistically insignificance between GDP of Republic of Belarus and EAEU trade turnover.
- p-value for  $x_{4t}$  is 0.3848, which is less than critical value (0.05), therefore, we can reject the null hypothesis. There is statistically insignificance between GDP of Republic of Armenia and EAEU trade turnover.
- p-value for  $x_{2t}$  is 0.0369, which is less than critical value (0.05), therefore, we can reject the null hypothesis. There is statistically significance between GDP of Kyrgyz Republic and EAEU trade turnover.

### Heteroscedasticity

We use Breusch-Pagan test to identify if the model has heteroscedasticity.

$H_0$  = Heteroscedasticity is not present

$H_A$  = Heteroscedasticity is present

**Figure 1- Breusch-Pagan test for heteroscedasticity**

```

Breusch-Pagan test for heteroskedasticity
OLS, using observations 2010-2021 (T = 12)
Dependent variable: scaled uhat^2

      coefficient   std. error   t-ratio   p-value
-----
const      -2.10801      6.47912   -0.3254   0.7581
Kazakhstan  0.0138938      0.0153292  0.9064   0.4063
drussia    -0.000637529    0.00270658 -0.2355   0.8231
dbelarus   0.0625153      0.0967698  0.6460   0.5467
darmenia   -0.0736202      0.798783  -0.09217  0.9301
Kyrgyzstan 0.0677480      0.581329  0.1165   0.9118

```

Explained sum of squares = 5.34613

Test statistic: LM = 2.673066,  
with p-value = P(Chi-square(5) > 2.673066) = 0.750235

Source: autor's calculations in Gretl

From Figure 1, we obtained the p-value = 0,75 which is greater than  $\alpha = 0.05$ . In this case, we can interpret that our model is not heteroscedastic.

### Autocorrelation of residuals

H<sub>0</sub>: autocorrelation does not occur in the model

H<sub>1</sub>: Autocorrelation occurs in the models

#### Figure 4 - Autocorrelation

---

Breusch-Godfrey test for first-order autocorrelation  
OLS, using observations 2010-2021 (T = 12)  
Dependent variable: uhat

	coefficient	std. error	t-ratio	p-value
const	-40285.0	22832.7	-1.764	0.1524
Kazakhstan	99.1570	54.7805	1.810	0.1445
drussia	13.7613	8.97785	1.533	0.2001
dbelarus	-629.030	346.434	-1.816	0.1436
darmenia	158.548	2280.26	0.06953	0.9479
Kyrgyzstan	2882.90	1916.07	1.505	0.2069
uhat_1	-1.12424	0.373809	-3.008	0.0396 **

Unadjusted R-squared = 0.693372

Test statistic: LMF = 9.045111,  
with p-value = P(F(1,4) > 9.04511) = 0.0396

Alternative statistic: TR<sup>2</sup> = 7.627089,  
with p-value = P(Chi-square(1) > 7.62709) = 0.00575

Ljung-Box Q' = 5.43944,  
with p-value = P(Chi-square(1) > 5.43944) = 0.0197

Source: autor's calculations in Gretl

The p-value are lower that alpha 0.05, and we can reject null hypothesis meaning that autocorrelation occurs within a model.

#### Durbin-Watson

I would like to know if there is positive or negative autocorrelation in our model. Thus, we can determine this by calculating Durbin-Watson statistic in Gretl. The Durban Watson statistic will always be in the range of 0 to 4. There is no autocorrelation when the value of DW = 2. A positive autocorrelation is indicated by a value less than 2, while a value greater than 2 implies a negative correlation.

Durbin-Watson statistic = 3.14802

H<sub>1</sub>: positive autocorrelation

p-value = 0.875799

H<sub>1</sub>: negative autocorrelation

p-value = 0.124201

Durbin-Watson statistic equals to 3.14802, which is more than 2, thus, we can say that there is a negative correlation in our model.

I analyze how GDP of Kazakhstan, Russia, Belarus, Armenia and Kyrgyzstan influencing on turnover of EAEU within the time series of 2010-2021. Those data are later analyzed using Microsoft Excel and Gretl software. There are two main sections in this paper: the one equation model and simultaneous model. In year 2014 sanctions were imposed on Russia, so negative impact of sanctions influence on the trade turnover of EAEU and GDP of Russia. In 2020, Covid-19 affected the decline in GDP of all EAEU member-state countries and this is a consequence of decreasing trade turnover of the EAEU. But in year 2021 GDP indicators have grown and returned to the pre-covid time. Assumption are correct.

## **4.4 Steps to overcome consequences**

### **4.4.1 Assessing prospects for the development of the EAEU**

Prospective integration agenda of the EAEU with non-CIS countries, discussion of possible integration of Russia as an EAEU participant with third countries intensified in 2011-2012, when prospects of signing free trade agreements (FTAs) with New Zealand, Vietnam and ASEAN countries began to be considered. Later negotiations on signing a trade agreement with the European Free Trade Association (Norway, Switzerland, Iceland, and Liechtenstein) began, and in 2014 with Israel. - Israel as well. The possibility of creating free trade zones with India and the United States was discussed. (Fugazza, Maur, 2008).

If analyze the effects of various trade agreements of EAEU countries with different partners, then, as in case of other trade agreements, in addition to the overall positive impact on welfare by reducing inefficiencies due to mutual relaxation of trade restrictions (Perali et al., 2012), we should consider sectoral effects, which, very importantly, differ in the short term (2-3 years) and long term (4-6 years).

For the sake of certainty we will talk about the reduction of import duties, but the presented logic is quite applicable to any type of trade restrictions, for example, for the increasingly important non-tariff barriers (Fugazza, Maur, 2008).

In the short term, there are four main effects of reduced import duties under a FTA:

(a) an increase in the real income of the economy due to lower prices for both end-use goods and investment and intermediate goods used by domestic industry in production;

b) shifting consumption from goods produced in the EAEU and other countries to those of the FTA partner;

c) growth of imports from the FTA partner country and displacement of domestic production, which in turn determines redistribution of labor and capital from less efficient industries to more efficient ones;

d) partial compensation of decline in demand for domestic products through income growth (Pereira et al., 2010).

In the long term, lower barriers that increase incomes and welfare ensure an increase in savings and investment, which leads to a further increase in output in sectors that can compensate and offset the decline due to increased imports. In addition, increased competition stimulates efficiency, which causes productivity and output growth (Lakatos and Walmsley, 2012).

The quantitative effects of a particular FTA on the economy and various sectors of each EAEU member will depend on the current values of zeroed-out duties, the sectoral structure of output and consumption, and the sectoral structure of trade with each other and with the FTA partner. Importantly, the transfer to the supranational level of joint trade policy issues means that a trade agreement can only be signed with the EAEU, and its terms will apply equally to each member of the union.

This can lead to the fact that under certain conditions, despite the positive result for the EAEU, some of the participants may face losses from such integration. The fact is that trade flows within the EAEU for some of its members may be reoriented towards the countries-partners in the trade agreement. For regions of an individual country, these losses can be compensated by internal budget transfers. In the EAEU, trade policy is partially taken to the supranational level, so for the full functioning of the EAEU and the development of integration with other countries, a mechanism of redistribution of gains, which is not spelled out in the EAEU, is necessary, although redistribution of resources within the union is present on a large scale.

At present, one of the most widespread and popular tools for assessing the consequences of trade agreements is the Computable General Equilibrium (CGE) model. The structural equations of this model reflect general equilibrium in all markets, which makes it possible to analyze the impact of various foreign economic changes on the national economy. The most common models assume perfect competition and capital accumulation (Georges, 2008).

The modeling assumes that imported goods are differentiated, separated by national origin and country, and imputes elements of monopoly power, which is realized through their tariff rates. As a result of tariff reductions, there can be significant effects of changes in the terms of trade due to the weakening of monopoly power. Differentiation of goods of the same industry depending on the country of origin (including domestic ones) is modeled by means of a function with constant elasticity of substitution (CES).

In this form of aggregation of the composite consumer good, domestic, and imported goods will be neither completely substitutes nor compliments: in any equal weight both goods are simultaneously consumed in strictly positive quantities. This property of the CES function allows us to model unequal prices for domestic and imported goods and is consistent with the reality that in almost all countries both domestic and imported substitute goods are consumed.

Calculations based on the Globe v1 general equilibrium model (proposed in: McDonald et al., 2007) show the following. FTAs, which imply only mutual zeroing of import duties (the first stage of serious economic integration), produce positive economic effects for the EAEU as a whole and for Russia both in the short and in the long term. In terms of its impact on the gross product, the greatest benefit for Russia, which is quite natural, is achieved in the FTA with its most important trade partner, the European Union.

Other possible agreements have more modest results: the gains to the Russian economy from an FTA with the countries of the Trans-Pacific Partnership (TPP) range from \$6 billion (~0.3% of GDP) in the short run to \$19 billion (~0.9% of GDP) in the long run. The Russian economy's gains from a FTZ with the ASEAN bloc countries are from \$1.5 billion (~0.08% of GDP) to \$4.5 billion (~0.25% of GDP) in the long-term perspective. (~0.25% of GDP); from FTA with Vietnam - respectively from \$ 0.3 billion (~0.02% of GDP) to \$ 0.9 billion (~0.05% of GDP). (~0.05% OF GDP). FTAs with other countries bring more modest gains because of the small trade turnover with them: in the long run a FTA with Israel will bring Russia up to \$250 million, with New Zealand - up to \$50 million, with Kazakhstan - up to \$300 million.<sup>1</sup>

Kazakhstan can also expect positive effects both in the long and short run. But the same cannot be said about Belarus. While free trade agreements with developing countries give it a positive result, the FTA with developed countries mainly negatively affects the

---

<sup>1</sup> [www.worldbank.org](http://www.worldbank.org)

Belarusian economy due to the structure of Belarusian exports to Russia, which will be strongly affected by liberalization of trade regime due to a shift of Russian demand from Belarusian goods to goods of partner countries. Belarus will incur the highest losses from the FTA of the Customs Union with the EU and the TPP countries - up to \$400 million; the lowest - from the FTA of New Zealand - up to \$4 million. The Belarus' losses are much smaller than Russia's gains, not to mention the mutual gains of the economies of Russia and Kazakhstan, so the solution of the issue of redistribution of gains within the EAEU is a necessary condition for integration with developed countries.

At the same time, one should consider the insufficiency of this condition: for the development of integration with non-CIS countries in the investment sphere it is desirable to create competitive production and improve the investment climate within the EAEU. It is possible to compensate potential losses of Belarus from the EAEU agreements with developed countries. For example, by temporarily changing in its favor the norms of income distribution from import duties. At the same time, mutual transfers within the EAEU, despite their scale, are not considered when making decisions about the FTA. Belarus, along with Russia and Kazakhstan, is a full-fledged member of the EAEU and has the right to veto on any important issue. For example, the blocking by the Belarusian side in 2012 the creation of FTA with New Zealand, the losses in dairy industry, which is subsidized from the resources received from the Russian oil and gas transfer. At the beginning of 2014, the parties were close to signing an agreement with New Zealand precisely because Russia undertook to buy Belarusian butter in the desired volumes for that country. The TPP includes Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, the United States, and Vietnam.

When discussing the prospects of various FTAs, it is advisable, first, to consider the existing transfers to the Belarusian side; second, to minimize them by means of a tax maneuver in the oil and gas sector. In addition, it is necessary to develop a mechanism for the redistribution of gains and compensation of possible losses for the EAEU members from these or those FTAs. Otherwise, it will not be possible to realize the potential positive economic effect of EAEU integration with other countries.

EAEU expansion is not limited to the post-Soviet space. Along with the establishment of close relations with Vietnam, which is becoming an important link with the ASEAN countries, it seems likely that an agreement on a free trade zone with Laos, is similar to Vietnam in many economic aspects. The association seeks to get closer to China and

participate in large-scale projects, especially the New Silk Road. China's growing economy needs the raw materials that Central Asia is rich in and access to transit to Europe. This encourages China to implement large-scale infrastructure projects. For Russia and the CAR countries, joining Chinese projects means investments in transport infrastructure, economic revitalization in the regions included in the project and their neighboring regions, and additional opportunities for exporting energy resources to China.

China extends its influence and elements of infrastructure to the Central Asian region to access local sources of energy resources and markets, so far prefers to act within the framework of its own "New Silk Road" project, without showing interest in regional economic associations. China's creation of a free trade zone with the EAEU faces the problem of the latter's competitiveness. Therefore, its full-fledged implementation may take from 10 to 30 years. The first step towards the creation of such an FTA should be an agreement on trade and economic cooperation between the EAEU and China. The creation of more stable and institutionalized mechanisms is a matter of more distant future.

Cooperation with China is not limited to the range of partnerships built by the EAEU. On May 29, 2015, the countries of the Eurasian Economic Union and Vietnam signed an agreement to create a free trade zone (FTA). The document, which envisages zero duties on almost 90% of goods within 10 years, will more than double trade turnover and initiate further integration with Asia-Pacific countries.

As for the possibility of extending this experience to other countries, the Eurasian Economic Commission does not yet venture to predict when and with whom a new free trade area agreement will be signed but confirms that there are currently enough proposals to conclude such agreements.

Further expansion of the EAEU involves adjusting the strategy to the changing political and socio-economic circumstances. It is practically unavoidable to abandon the understanding of the "multi-vector" strategy as a permanent maneuvering between centers of power to obtain unilateral benefits. Otherwise, destabilization of the structural and institutional foundations of the EAEU is likely, which could make the union inoperative. If now the main directions of cooperation between Belarus, Russia and Kazakhstan are coordinated and defined, the situation regarding the new and possible future members of the union remains not fully defined. And this makes it difficult to plan the next stages of the integration process and their coordinated management.

The Eurasian Economic Union, to deepen and improve the quality of integration,

needs political "reinforcement" associated with the strengthening of parallel structures that provide systemic security in Eurasia. The formation by the EAEU countries of an independent regional policy, which not only promotes inter-regional cooperation and cross-border cooperation, but also makes it possible to better use the resources of the regions within the Union for common socio-economic development, looks equally necessary. Equally important is the development and implementation of a common demographic and migration policy, which will avoid many risks and make the process of Eurasian integration more manageable and predictable, avoiding catastrophic and crisis scenarios.

#### **4.4.2 The problems and risks**

The ideology of an integration association with a depth of integration no less than a customs union (not to mention the economic union declared within the EAEU) is based on two basic principles:

- 1) a coordinated trade policy with respect to the rest of the countries;
- 2) the formation and functioning of a single customs territory.

Since August 2014, Russia has been applying countersanctions, to its producers. Russia's application of countersanctions against food producers from the United States, the EU, Australia, Norway, and Canada in the absence of similar decisions in Belarus and Kazakhstan violates the first basic principle: the trade policy of the three EAEU members becomes less coordinated. This raises questions about the supply of products from the above-mentioned countries to Russia through the territory of the other two members of the union.

In the general design of the EAEU, such a situation contradicts the functioning of the common customs territory, because when crossing the external customs border, goods must move freely within the integration association. Under the new conditions, Belarusian goods can be imported from Belarus to Russia without restrictions, but foodstuffs from the sanctions list cannot be imported. In practice, the CIS rules of origin regulate according to a product produced in the CIS or the CU if it has undergone sufficient processing or if the cost of materials of foreign origin does not exceed 5% of the price of the final product.

Formally, the requirement of sufficient processing means that at least one of the first four characters in the code of the commodity nomenclature of the Customs Union must be changed.



Thus, the sausage made at the Belarusian enterprise (belongs to group 1601), in the production of which Polish pork was used (refers to group 0203, which is prohibited for import into the territory of the Russian Federation), will in all senses be considered a Belarusian product, which can be freely sold in Russia (at least, if the enterprise is not in the list of banned producers of Rosselkhoznadzor or Rospotrebnadzor). However, the purchase of Italian shrimp and their cleaning in Belarus does not make the product Belarusian (both cleaned and uncleaned shrimp belong to the group 0306), and on formal grounds it should be covered by the ban on imports into Russia. It is important that the packaging may quite legally say "made in the Republic of Belarus", but in terms of the application of the trade regime the product must be considered Italian, with all the ensuing consequences. The rules prescribed in the CIS countries imply the provision of documents on the origin of the goods when crossing the customs border.

In 2010, customs borders between the Russian Federation, the Republic of Belarus and the Republic of Kazakhstan were abolished, so additional checks on the origin of goods have become difficult. At the same time, such checks are redundant in a full-fledged customs union, in which unified taxation rules and import restrictions apply to third countries: within an ideal customs union, the movement of goods is free, as is the movement of goods within a country.

The customs union of Armenia, Belarus, Kazakhstan and Russia is far from ideal - there are many non-tariff barriers within it, export duties are determined independently by each country, there is no single authority for veterinary and phytosanitary surveillance, etc. The decision to impose an embargo on food imports further distances it from the ideal. Under current conditions, there will inevitably be risks of re-export of goods through Belarus and (to a lesser extent) through Kazakhstan, especially for items whose analogues are produced in Belarus.

It should be considered that the Russian embargo creates risks of rising prices for food products. However, the possible losses of Russian consumers can be partially mitigated by "gray" re-export through EAEU partners, but some transfer from Russian consumers to Belarusian consumers and producers and (to a lesser extent) to Russian producers is likely. According to calculations based on the general equilibrium model, the Russian ban on food imports (modeled as the establishment of a prohibitive tariff for goods from the sanctions list countries), if it remains in effect for several years, may result in cumulative losses for the Russian economy of up to 1.8% of GDP.

These losses can also be partially mitigated by replacing supplies from Latin American countries, but on a scale comparable to the positive effect of a free trade zone with the EU. The situation in which there is a Russian ban on food imports from some countries within the EAEU cannot in the long run comply with the principles of the common market declared in the EAEU.

Three options are possible in the future:

1) trade policy becomes coordinated through the accession of Armenia, Belarus, and Kazakhstan to Russian counter-sanctions;

2) The trade policy becomes coordinated due to Russia's lifting of the embargo on food supplies from the United States, the EU, Canada, Australia and Norway;

3) the Russian embargo remains in place, but in this case talk about the EAEU as an integration union Eurasian Economic Union: Development Prospects and Possible Obstacles with the Depth of Integration an "economic union" would be very tentative. Since the first option is unlikely to be implemented due to the economic inexpediency for Belarus and Kazakhstan, we will have to choose from the other two.

Currently, the main problem of the EAEU is two main motives for the development of integration - the creation of additional resources through the removal of mutual trade restrictions and the redistribution of resources in favor of some participants - the second motive dominates. The EAEU agreement does not take full advantage of the opportunities to move towards the creation of additional resources by increasing efficiency. Due to the presence of export duties on energy resources, there is a transfer from Russia to its trading partners in the EAEU.

Calculations show that it was approximately \$9.2billion in 2011, \$11.8b billion in 2012, \$9.4 billion in 2013 and \$6.4 billion in 2014. The decrease in the transfer in recent years was due to a reduction in supplies of petroleum products to Belarus, an increase in purchases of Belarusian gasoline and the transition to swap supplies of oil to China via Kazakhstan<sup>2</sup>

In 2017, the transfer is projected to decrease due to the decline in world oil prices, despite the abolition of the need for Belarus to compensate the Russian budget for export duties on oil products exported to third countries.

---

<sup>2</sup> [www.eaeunion.org](http://www.eaeunion.org)

In the future the size of the transfer should decrease due to the tax maneuver in the oil industry, but the volume of redistribution of resources at the expense of the Russian budget will remain at a rather high level.

The Russian tax maneuver in the oil and gas industry may lead to a shift in the focus of integration from redistributive to creative. Otherwise, the Russian budget will suffer losses from the functioning of the EAEU and the involvement of new members in it. It seems expedient to completely switch over to the withdrawal of rent from the oil and gas sector by 2025 through severance tax, which can increase motivation to reduce non-tariff barriers in trade in goods and services, as it will become the main source of increasing competitiveness of the integration association and its individual participants.

As for the prospects of EAEU integration with non-CIS countries, it should be considered that the union has international legal personality, which means that a possible trade agreement can only be signed with the EAEU. As calculations show, free trade agreements can create a positive economic effect for the EAEU as a whole and for Russia and Kazakhstan separately, which cannot be said about Belarus in the short and long term. While FTAs with developing countries provide a positive result for Belarus, the impact of FTAs with developed countries will be mainly negative due to the structure of Belarusian exports to Russia. Belarus's losses are much less than the gains of other EAEU members, so the solution of the issue of redistribution of gains within the EAEU will be a prerequisite for integration with developed countries.

When discussing the prospects of various FTAs, it is proposed to consider the existing transfers to the Belarusian side, minimizing them through the tax maneuver in the oil and gas sector, as well as to develop a mechanism for compensating possible losses for the EAEU members from certain FTAs. The complex geopolitical situation has its own impact on economic relations with developed countries.

Russia's unilateral embargo on food supplies from several countries violates the principle of coordinated trade policy of the EAEU in relation to other countries and contradicts the functioning of the common customs territory. There is a risk of re-export of goods through Belarus and (to a lesser extent) through Kazakhstan. "The gray re-export through EAEU partners partially mitigates welfare losses of Russian consumers, but if the embargo remains in effect for several years, these losses may be comparable in scale to A. Knobel's potential positive effect from the FTA with the EU. This situation cannot be maintained as an equilibrium in the long run. The EAEU countries should pursue a

coordinated trade policy towards the rest of the CIS countries, primarily Ukraine and Moldova.

If Russia unilaterally applies duties on Ukrainian goods, then it will contradict the basic principles of the Customs Union and the more so EAEU. The signing of the association agreement with the EU by Moldova and Ukraine certainly carries certain risks for the Russian economy, which, however, can be minimized by the appropriate work of customs. Russia's lost profits due to the lack of integration between the EAEU and the EU only increase the participation of some CIS countries in European integration.

#### 4.4.3 Prognoses of future trade

According to several analysts, the Eurasian Economic Union is an example of an international organization with progressive, systematic development of integration processes. This may predetermine the significant sustainability of the relevant structure. (Falina, 2016)

It is predicted that the integration factor will increase the share of member states in global trade in goods and services by 0.2 by 2030. Not so significant values of the indicator reflect, among other things, the orientation of producers of the member states to the development of the internal market of the Union .

**Table 14- Assessment of additional economic effects because of integration cooperation of EAEU member countries by 2030 (in %)**

Name of parameter	EAEU	Armenia	Belarus	Kazakhstan	Russia
Relation of import to third countries GDP, %	-0,2.	-	- 3,7	+5,3	-1,0
Mutual trade in intermediate goods raw materials, materials, billion U.S. dollars	+80,4%	+31,3%	+65,8%	+94,8%	+85,0%
Mutual openness of trade in goods, %	+2,9	+22,0	+17,2	+3,2	+1,9
Mutual importance of trade in goods, %	+2,8	+11,4	+12,8	+5,3	+4,0
Mutual openness of trade in services, %	+0,03	-	+0,15	-0,05	+0,02

The reciprocal importance of trade in services, %	+0,03	-	-0,13	-0,39	+0,05
Share of exports in world trade, %	+0,23	+0,01	0,08	+0,08	+0,08

Source: Eaeunion data

There is a downward trend in potential economic growth in both developed and emerging economies. Due to the involvement of EAEU member states in global processes, this trend is also reflected in their development prospects. In addition, a high degree of geopolitical uncertainty and unclear investment prospects have accelerated the trend of slowing potential output in Russia. As a result of the effects of changes in capital flows it affects partners in integration union and their trade relations. (Snimshchikova, 2009)

Cross-border companies and holdings with intertwined assets in a number of countries of the Eurasian Economic Union can become a crucial factor of sustainability. Such projects are fraught with significant difficulties, but they form the skeleton of long-term economic integration.

As for foreign trade, so far Russia and other CU members have initiated negotiations on free trade with important but much less important individual states. (Trubilin., 2011)

## Results and Discussion

International economic integration is considered (especially in its Western European version) as a three-level model. At the micro level, i.e. at the corporate level, when individual companies enter into direct economic ties and deploy integration processes, at the interstate level, when purposeful state activity (collective or unilateral) promotes integration processes of interweaving labor and capital within a particular group of countries, ensures functioning of special integration tools and at the national level, where member states voluntarily transfer a number of political and economic functions.

Overall, the EAEU ranks 6th in the world in terms of industrial output. It is important that Russia accounts for 80-87% of the total economic potential of the Eurasian Union member states. The most important geostrategic position of the EAEU makes it potentially the most important transit transport hub, connecting Europe and Asia. The EAEU ranks second in the world in terms of the length of railways and fifth in terms of the total length of roads. But one of the most important advantages that the EAEU has, which no other integration grouping in the world has, is its shared history and experience in doing business together.

Among the external factors that provide opportunities for the EAEU's self-development are:

- economic sanctions and barriers in relation to Russia as an incentive to reduce import dependence and the formation of common EAEU markets;
- interest of third countries in the formation of free trade zones with EAEU countries is the formation of the "core" and their own "periphery" of Eurasian integration.

In the process of evolution of the Eurasian Economic Union's economy, the Eurasian Economic Union also faces enough internal challenges to the self-development of this integration system:

- exhaustion of the resource of growth of the economy of the association from the removal of trade barriers;
- the risk of devaluation of the Russian ruble against the national currencies of other EAEU participants - the introduction of temporary protection measures for the domestic market, the risk of complications in relations within the EAEU;

The expansion of the EAEU is not limited to the post-Soviet space. Along with

the establishment of close relations with Vietnam, which is becoming an important link with the ASEAN countries, the conclusion of an agreement on a free trade zone with Laos, which is similar to Vietnam in many economic aspects. The association aims are to get closer to China and participate in large-scale projects, especially the New Silk Road. Central Asia has a lot of raw materials that China's economy needs. This encourages China to implement large-scale infrastructure projects. For Russia and the CAR countries, the connection to Chinese projects means investments in transport infrastructure, economic revitalization in the regions included in the project and their neighboring regions, and additional opportunities for exporting energy resources to China.

The Eurasian Economic Union needs political "reinforcement" to deepen and improve the quality of integration. This is related to the strengthening of parallel structures that provide systemic security in Eurasia. The formation of an independent regional policy by the EAEU countries seems equally necessary. This promotes not only interregional cooperation and cross-border cooperation, also makes it possible to better use the resources of the regions that are part of the Union space for common socio-economic development. Equally important is the development and implementation of a common demographic and migration policy. This would avoid many risks and make the process of Eurasian integration more manageable and predictable. It will also avoid catastrophic and crisis scenarios.

The modern system of international relations knows many examples of the simultaneous participation of different states in two territorially separate regional organizations. The relevant experience could well be used in attracting a few countries-members of the European Union and some states aspiring to membership in it-to the processes of Eurasian integration.

For these countries that express their desire to participate in the activities of Eurasian interstate structures, if necessary, can be development various formats of special partnership with the EAEU that suit them.

It is worth noting that, using exactly these kinds of formats, some members of the Pacific Forum (uniting most Australian states) successfully participate in the activities of the Association of Southeast Asian Nations. Of course, such formats will also require special forms of their consolidation in the emerging treaty law of the Eurasian Economic Union.

## Conclusion

The paper analysed the mutual trade of the member states of the Customs Union, the main trends, and trends in the volume of trade turnover between the countries.

The analysis of the data indicates that the trends and trends of the attenuation of mutual trade of the Customs Union countries in 2014 were not accidental. The attenuation of mutual trade reflects the economic situation in the countries of the customs zone – a reduction in GDP growth compared to the previous period or even stagnation in industry and agriculture. There are other reasons that are related to gradual convergence of the three economies. The process of harmonization and unification of the laws of the three countries in the field of trade, industry and tax policy has made it less profitable, for example, the organization of Russian companies in Belarus and Kazakhstan (where the legislation is more liberal) for the purpose of production and subsequent sale of products in Russia. The general economic situation in the world, which experts characterize as pre-crisis, also has an impact, which pushes the countries of the customs zone to conduct a more cautious trade policy, cost reduction through the activation of domestic reserves and import substitution. Negative economic trends within the Customs Union also have a positive effect. Managers Russia, Belarus and Kazakhstan seek to compensate for a number of difficulties of economic interaction between states through political dialogue and the formation of the Eurasian Union, activities which covers not only issues of economic cooperation.

Thus, the registration in 2010 The Customs Union is noticeably It stimulated mutual trade between Russia, Belarus and Kazakhstan during the first two years. This can be explained by the result of the removal of customs barriers between the states of the Customs Union against the background of the recovery of the economies of the three countries after the global economic crisis of 2008. The beginning of the functioning of the Customs Union made it possible to recreate the established trade and economic chains more fully in the Soviet economy. However, in subsequent years, a decrease in trade turnover between the three republics is recorded, which is determined by internal and external reasons.

Negative trends are caused by protectionist measures of the governments of Russia, Belarus and Kazakhstan, which, in an unstable economic and political situation, seek to support their own producers and maintain restrictive barriers against certain types of products.



The decline in economic growth in Russia, whose economy dominates in the Customs Union zone, has also had a negative impact on the mutual trade of the Customs Union states over the past two years in general, the current problems of the association are situational and quite surmountable. Russia's deep interest in the success of the project as the main instrument of Eurasian integration speaks in favour of their successful solution.

## References

- A.I. Trubilin, V.I. Gaiduk. (2016)*The Russian economic model-6 scenarios of the future: a collective monograph*– Krasnodar:Enlightenment-South,
- A.Y. Knobel *Eurasian Economic Union*, 2018
- Akhmetzyanova T. L.(2010) *Analysis of domestic and foreign investment experience: models of foreign investment policy* // Bulletin of BIST
- Barskaya V. V., 2015, *EurAsEC and EAEU: The history of creation and prospects. Economics and Society*
- Economic potentia, 2016 // *Eurasian Economic Policy*. Access mode: <http://www.eurasiancommission.org/ru/Pages/ses.aspx>
- Fugazza, Maur,*Non-traffic barriers*, 2008
- Gazprom is in a Hurry to Begin Deliveries of “Power of Siberia”(2015) Available at: <http://www.vestifinance.ru/articles/93633>
- Georges ,*The Crash of 2008 and What it Means: The New Paradigm for Financial Markets*
- Heckscher, E. *The Effect of Foreign Trade on the Distribution of Income* // *Ekonomisk Tidskrift*, 1919. *Interregional and International Trade*. Cambridge, Mass.: Harvard University Press
- Hume D. Of Commerce, 1752 // *Political Discourses*. By David Hume Esq. Edinburg: Printed by R.Fleming for A.Kincaid and A.Donaldson
- I.V. Snimshchikova, 2009*World Economy: studies. manual* ; edited by A.B. Melnikov. – Krasnodar: KubGAU,
- Lakatos and Walmsley, *Investment creation and diversion effects of the ASEAN-China free trade agreement*, 2012
- Long-term forecast of economic development of the Eurasian Economic Union until 2030 – Access mode: <http://www.eurasiancommission.org>
- M.L. Vartanova *Main directions of economic development and prospects of economic integration of the EAEU countries*, 2017
- Meade J. A., 1952 *Geometry of International Trade*. London: George Allen & Unwin

Medvedeva T. Ruslan Grinberg, 2016, "There are no liberals" // Portal Culture. Access mode: <http://portal-kultura.ru/articles/ekonomika/126878-ruslan-grinberg-nikakikh-liberalov-net>

Montchrestien de Watteville A. 1615, *Traité d'économie politique*. Rouen

N.V. Falina, T.S. Chertova (2016) *Breakthrough economic reforms in conditions of risk and uncertainty: sat. tr. scientific and practical conference* - Ufa: SIC "AETERNA  
Osadchaya G.I., *Social policy of the Eurasian Economic Union: theoretical and methodological aspects*, 2016.

Perali et al., 2012 *A Characterization of Collective Individual Expenditure Functions*

Pereira et al., *Scenarios of Global Biodiversity*, 2010

Ricardo, D. 1817, *On the Principles of Political Economy and Taxation*. London: John Murray

Rybalkina, 2008. *International economic relations*

Samuelson P.A., 1949, *International Factor-Price Equalization Once Again // The Economic Journal*

Shishkov Yu.V., 2011, *Integration processes on the threshold of the XXI century. Why the CIS countries are not integrating*. — Moscow, NP "III Millennium"

Stolper, W.F., Samuelson P.A., 1941. *Protection and Real Wages // The Review of Economic Studies*

Trubilin, A.I. (2011) *Foreign economic activity of the enterprise: studies. manual* . – Krasnodar: KubGAU,

Turlai, I.S.(2011) *The impact of European integration on attracting foreign direct investment*

Turlai, I.S.(2011) *The impact of European integration on attracting foreign direct investment / I.S. Turlai // Journal. international. rights and international relations. relations*

# Appendix

Figure 3 – Confidence intervals

<b>t Table</b>											
cum. prob	$t_{.50}$	$t_{.75}$	$t_{.80}$	$t_{.85}$	$t_{.90}$	$t_{.95}$	$t_{.975}$	$t_{.99}$	$t_{.995}$	$t_{.998}$	$t_{.9995}$
one-tail	0.50	0.25	0.20	0.15	0.10	0.05	0.025	0.01	0.005	0.001	0.0005
two-tails	1.00	0.50	0.40	0.30	0.20	0.10	0.05	0.02	0.01	0.002	0.001
df											
1	0.000	1.000	1.376	1.963	3.078	6.314	12.71	31.82	63.66	318.31	636.62
2	0.000	0.816	1.061	1.386	1.886	2.920	4.303	6.965	9.925	22.327	31.599
3	0.000	0.765	0.978	1.250	1.638	2.353	3.182	4.541	5.841	10.215	12.924
4	0.000	0.741	0.941	1.190	1.533	2.132	2.776	3.747	4.604	7.173	8.610
5	0.000	0.727	0.920	1.156	1.476	2.015	2.571	3.365	4.032	5.893	6.869
6	0.000	0.718	0.906	1.134	1.440	1.943	2.447	3.143	3.707	5.208	5.959
7	0.000	0.711	0.896	1.119	1.415	1.895	2.365	2.998	3.499	4.785	5.408
8	0.000	0.706	0.889	1.108	1.397	1.860	2.306	2.896	3.355	4.501	5.041
9	0.000	0.703	0.883	1.100	1.383	1.833	2.262	2.821	3.250	4.297	4.781
10	0.000	0.700	0.879	1.093	1.372	1.812	2.228	2.764	3.169	4.144	4.587
11	0.000	0.697	0.876	1.088	1.363	1.796	2.201	2.718	3.106	4.025	4.437
12	0.000	0.695	0.873	1.083	1.356	1.782	2.179	2.681	3.055	3.930	4.318
13	0.000	0.694	0.870	1.079	1.350	1.771	2.160	2.650	3.012	3.852	4.221
14	0.000	0.692	0.868	1.076	1.345	1.761	2.145	2.624	2.977	3.787	4.140
15	0.000	0.691	0.866	1.074	1.341	1.753	2.131	2.602	2.947	3.733	4.073
16	0.000	0.690	0.865	1.071	1.337	1.746	2.120	2.583	2.921	3.686	4.015
17	0.000	0.689	0.863	1.069	1.333	1.740	2.110	2.567	2.898	3.646	3.965
18	0.000	0.688	0.862	1.067	1.330	1.734	2.101	2.552	2.878	3.610	3.922
19	0.000	0.688	0.861	1.066	1.328	1.729	2.093	2.539	2.861	3.579	3.883
20	0.000	0.687	0.860	1.064	1.325	1.725	2.086	2.528	2.845	3.552	3.850
21	0.000	0.686	0.859	1.063	1.323	1.721	2.080	2.518	2.831	3.527	3.819
22	0.000	0.686	0.858	1.061	1.321	1.717	2.074	2.508	2.819	3.505	3.792
23	0.000	0.685	0.858	1.060	1.319	1.714	2.069	2.500	2.807	3.485	3.768
24	0.000	0.685	0.857	1.059	1.318	1.711	2.064	2.492	2.797	3.467	3.745
25	0.000	0.684	0.856	1.058	1.316	1.708	2.060	2.485	2.787	3.450	3.725
26	0.000	0.684	0.856	1.058	1.315	1.706	2.056	2.479	2.779	3.435	3.707
27	0.000	0.684	0.855	1.057	1.314	1.703	2.052	2.473	2.771	3.421	3.690
28	0.000	0.683	0.855	1.056	1.313	1.701	2.048	2.467	2.763	3.408	3.674
29	0.000	0.683	0.854	1.055	1.311	1.699	2.045	2.462	2.756	3.396	3.659
30	0.000	0.683	0.854	1.055	1.310	1.697	2.042	2.457	2.750	3.385	3.646
40	0.000	0.681	0.851	1.050	1.303	1.684	2.021	2.423	2.704	3.307	3.551
60	0.000	0.679	0.848	1.045	1.296	1.671	2.000	2.390	2.660	3.232	3.460
80	0.000	0.678	0.846	1.043	1.292	1.664	1.990	2.374	2.639	3.195	3.416
100	0.000	0.677	0.845	1.042	1.290	1.660	1.984	2.364	2.626	3.174	3.390
1000	0.000	0.675	0.842	1.037	1.282	1.646	1.962	2.330	2.581	3.098	3.300
<b>Z</b>	0.000	0.674	0.842	1.036	1.282	1.645	1.960	2.326	2.576	3.090	3.291
	0%	50%	60%	70%	80%	90%	95%	98%	99%	99.8%	99.9%
	<b>Confidence Level</b>										