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Diploma Thesis

Economic Sanctions and their Impact on the Russian Agrarian Sector

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DIPLOMA THESIS ASSIGNMENT

Olga Astrakhantseva

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Economic Sanctions and their Impact on the Russian Agrarian Sector

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Objectives of thesis

The aims of this thesis are: to investigate the socio-economic aspects of development of the Russian economy in the conditions, to analyze macroeconomic indicators before and after sanctions and to develop a forecast for the 3-5 years period.

Methodology

The methodologies for this research: collecting and preparing data information from official resources, analyzing statistical information, literature review, data comparison, SPSS program, regression analysis of the collecting data, methods of sociological and statistical research: documentary and statistical analysis.

The proposed extent of the thesis

60-80 pages

Keywords

Economy, sanctions, crisis, embargo, reactions, import, export, international trade, agriculture, household, import substitution.

Recommended information sources

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Declaration

I declare that I have worked on my diploma thesis titled "Economic Sanctions and their Impact on the Russian Agrarian Sector" by myself and I have used only the sources mentioned at the end of the thesis.

In Prague on _____ _____

Olga Astrakhantseva

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Economic Sanctions and their Impact on the Russian Agrarian Sector

Abstract

This Diploma Thesis discusses the theoretical aspects of the Russian economy, its industries and sectors, analysis of existing Western sanctions. It was discussed economical and political sanctions, especially in the agrarian sector.

The theoretical part considers general information about sanctions: types and international experience, the reason of economic sanctions against Russia. The effect of the sanctions on different sectors including the agrarian sector of Russia, revealed the consequences of this effect, as well as the predicted development options of the domestic economy under the influence of Western sanctions.

Practical part presents the prospective future of the Russian economy in the face of sanctions and counter-sanctions. Econometric modeling of damage from economic and political changes and its analysis are included in practical port. SPSS program is the main tool for practical part. It helps to systematize all data in period 2010-2016 years and to take the main factors which influence on Russian GDP. As an additional chapter there is also an anticipated forecast for Russian agrarian sector under the conditions of sanctions.

Key words

Economy, Russia, sanctions, crisis, embargo, counter-sanctions, import, export, world trade, agriculture, import substitution.

Ekonomické Sankce a jejich Vliv na Ruský Agrární Sektor

Abstrakt

Tato diplomová práce se zabývá teoretickými poznatky z ruské ekonomiky, jejích průmyslových odvětví a sektory, analýzou existujících sankcí západu vůči Rusku. Diskutuje se o ekonomických a politických záležitostech, zejména v agrárním sektoru.

Teoretická část obsahuje obecné informace o sankcích: typy a mezinárodní zkušenosti, důvod hospodářských sankcí vůči Rusku. Dopady sankcí na různé sektory, včetně agrárního sektoru Ruska, kde se projevují následky tohoto efektu, stejně tak jako předpokládané možnosti vývoje domácí ekonomie pod vlivem sankcí západu.

Praktická část popisuje perspektivní budoucnost ruské ekonomiky vzhledem mezinárodní zkušenosti, důvod hospodářských sankcí vůči Rusku. Dopady sankcí na různé sektory, včetně agrárního sektoru Ruska, kde se projevují následky tohoto efektu, stejně tak jako předpokládané možnosti vývoje domácí ekonomie pod vlivem sankcí západu. Praktická část popisuje perspektivní budoucnost ruské ekonomiky vzhledem hlavní faktory ovlivňující ruské HDP. Následující kapitolou je také prognóza pro ruský agrární sektor za podmínek sankcí.

Klíčová slova

Ekonomika, Rusko, sankce, krize, embargo, protiopatření, dovoz, vývoz, světový obchod, zemědělství, náhrada dovozu.

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1 Introduction

After the end of the "Cold War" most of the leading states do not face threats of existential nature, requiring any military intervention. In addition, the initiation of military operations in modern conditions becomes costly, and their consequences are not always predictable. A growing role of non-state actors in world politics is the military force, which is inadequately or with international law or with the military point of view. Because of the increasing sentiment of resistance from the leading countries to the employment of any military enforcement, a trend was recorded in the use instead of non-military methods of pressure. One of these, for example, was the introduction and use of economical instruments to influence and manipulate the overall international economical scenario.

After evaluating the entire arsenal of existing economic instruments, it should be recognized that policies can not be used effectively to achieve foreign policy goals.

Firstly, modern states do not always have sufficient resources to influence the international movement of capital by virtue of the giant capacity of this market.

Second, to conduct effective financial and macroeconomic policies in the modern world it is required close coordination of a number of states and non-state actors in international relations. It is not always possible. The use of economic aid has an effect only in a limited number of cases.

As a result, sanctions are the economical instruments to achieve some political goals. Under these conditions the relevance of the study of economic sanctions just increases in contemporary world politics, because it is necessary to "enter" the instrument model for determining foreign power of State and into the classification of certain cases and the circumstances of its projection.

The relevance of the research topic: the economic sanctions at the beginning of the XXI century, as in the XX century are still important, while being a double-edged instrument of foreign policy and international diplomacy. Accepted for a limited time, they can have a lasting effect, and the economy feels their effect not immediately, but after a certain period of time. Many of the negative effects (reduction in GDP growth, the loss of jobs and opportunities for the development of the business sector) appear over time.

The country applies sanctions in situations when the inaction leads to loss of confidence in its leadership within the country and abroad. The reputation undermining becomes more expensive than the price of sanctions.

Economic sanctions are more effective regards to the traditional economic partner countries than against new ones or countries, the trade share with whom are not so big. For Russia, the US sanctions are less painful than the sanctions from the EU, that recognized as the main strategic partner.

The study of economic sanctions, that affect the Russian economy, has not only the scientific sense but also the practical significance, since it is the most important research topic in our time, which determines the country's future economic performance.

The object of research is the Russian economy. This object can be studied from different perspectives, that is why the subject of the research is the sectoral sanctions and economic consequences for the agricultural sector.

The purpose of writing the diploma thesis is to analyze the existing sanctions and their impact on the agricultural sector in Russia.

In order to achieve this goal the following tasks should be fulfilled:

- define the concept of sanctions and their species;
- study the world experience of the sanctions;
- explore the history of economic sanctions against Russia;
- analyze the current state of the Russian economy;
- determine the effect of sanctions on the Russian economy;
- study the effects of the sanctions imposed;
- analyze and predict the future consequences of the sanctions impact on the agricultural sector.

Practical significance: find the tools for the factors analys, develop the short - term forecasts for the economic entities, that will minimize the risks in the decision-making process in the future.

2 Objectives and Methodology

2.1 Objectives

The main objective of this thesis is to investigate the socio - economic aspects of the Russian economy development in the conditions of sanctions, to analyze the macroeconomic indicators and to develop a forecast for the period from 2017 to 2020.

The Russian economy has the Economic Complexity Index (ECI) of -0.027 making it the 49th most complex country. Russia exports 155 products with revealed comparative advantage (meaning that its share of global exports is larger than what would be expected from the size of its export economy and from the size of a global product's market) (atlas.cid.harvard.edu).

Agriculture is the best prospect industry sector for the country. It includes the market overview and trade data. Despite the import boycott of fresh fruit and vegetables from EU countries and Turkey, Russia was still the third largest importer of fresh produce globally in the past year. During the final year before the boycott, Russia was also the third.

The thesis shows the influence of the sanctions and counter - sanctions on different economic sectors. One of the objectives is the analysis of the relationship between the economic indicators and GDP, also make the trade indicators analysis in the agrarian sector and build the econometric modeling of future perspectives. Another objective is to forecast the mid - term scenario for the agrarian sector and to propose an optimal way out of the economic crisis.

2.2 Methodology

The study used the scientific methods such as comparative analysis, numerical data analysis, the method of comparisons and analogies, the mix of qualitative and quantitative research methods and generalization method.

The practical significance of the work lies in the fact that the results of the study will help to expand the theoretical knowledge in the field of sanctions and their impact on the economy and opposition to their methods.

Collecting and preparing data of different scientific works in the sphere of the econometric modeling and in the agricultural industry, materials and data obtained from the reference materials, periodicals, statistical information and Internet and the production function analysis of collecting data are the methodology of the work.

Theoretical part considers general information about sanctions: types and international experience, the reason for economic sanctions against Russia. The effect of the sanctions on different sectors including the agrarian sector of Russia, revealed the consequences of this effect, as well as the predicted development options of the domestic economy under the influence of Western sanctions.

The practical part presents the prospective future of the Russian economy facing sanctions and counter - sanctions. This part includes monitoring, observation and analysis of Russian trade activity data. For the building of the econometric model were taken statistical data during the period of 2010 - 2016 from official sources such as Rosstat, Bank of Russia, Goskomstat and Federal Customs Service. NCSS program helps to systematize all data in the period 2010 - 2016 years and to take the main factors which influence on Russian GDP and trade indicators of agrarian sector. As an additional chapter there is also an anticipated forecast for Russian agrarian sector under the conditions of sanctions and the proposal of an optimal way out of economic crisis based on this forecasting. Different analytical and theoretical works of authors were used for building and describing of econometric model and the development of short - term forecasts of economic entities, which will minimize the risks in decision - making in modern conditions of the economy.

3 Theoretical part

3.1 Definition and types of economic sanctions

Economic sanctions are the economic measures applied by one country or several countries against other governments, in order to change their policies. Penalties involved the import ban, full or partial from the country, and the exports ban to the countries in restricting financial transactions with them.

The purpose of these sanctions is to force the government to adopt some changes in the political system.

There is no precise and complete definition of the economic sanctions, because each of their application cases is considered individually. There are certain measures of influence on a country. For example, in the Charter of the United Nations there is no concept of the "economic sanctions", but there is a "complete or partial interruption of economic relations."

Sanctions may be imposed by the government or the president of the country or several countries, but only the UN Security Council can give them the official international status. Some of the sanctions should be very effective, however, in the reality, the effectiveness of the sanctions depends on the immediate trading partners of the country.

One of the most famous kind of the economic sanctions is the trade embargo - is a ban on exports from the country and the import of goods. The ban on exports leads to drop in foreign exchange earnings and to further restrict the purchase goods abroad. But export restrictions doesn’t have a big effect on the country if it is focused on the domestic production.

Certain ban exists such as the ban on the supply of certain or all of goods into the country, for example, weapons, high technology, etc. The effects are the same as when declaring the embargo.

The economic sanctions also apply to the third - country companies what have the relationship with the country subjected to the sanctions.

The ban on the country or the company's financial operations is just one type of the economic sanctions. These sanctions prohibit only to conduct a large - scale financial transactions, without prohibiting conduct fine. If there is a serious international conflict or war, then there is the freezing of property of sanctioned countries (Keschner M., 2015).

The objectives of the sanctions are:

- authorized the change policy of the country;
- the cessation of hostilities;
- the destruction of the country's military capabilities;
- changes in other important aspects of national policies.

There is the debate about the real effectiveness of economic sanctions, which began after the World War II and continues to this day. The sanctions ends for several reasons:

- disproportion between ends and means;
- authorized the mobilization of the country;
- the appearance of external sponsors in the country subjected to the sanctions.

Total 204 cases for a sanctions were recorded in the world, but only a third of them achieved its original objectives (Tab. 1).

Table 1 Objectives of economic sanctions and their effectiveness

The purpose of sanctions	Amount	Success (in percentage)
Modification of policy	43	51
Change of the political regime	80	31
Stop of military operations	19	21
Destruction of military capabilities	29	31
Other changes	33	30

Source: Keschner M., 2015

As the world experience of the economic sanctions shows, they cause negative effects in the economy of the sanctioned state, but the ultimate political goals are not always achieved.

3.1.1 The history of economic sunctions

Basically, the sanctions have a stimulating effect on the economy of many countries. For example, the continental blockade, which was organized by Napoleon against Britain, turned it into the "workshop of the world". Russia has also been influenced by the continental

blockade, cut off supplies to England grain, flax, forests, etc. Russia also had to abandon the import of British iron and tissues, which in turn gave impulse to the Russian production of iron and steel and textile industries.

A clear case of the ineffectiveness of the sanctions is to create an embargo on trade with Italy by the League of Nations in 1935. The futility of these sanctions was the fact that the countries that were in favor of the establishment of the embargo did not comply with it.

The sanctions against Rhodesia in 1965 - 1966 also were ineffective. It was the first sanctions made by the United Nations. Then, in 1965 the UN recognized the illegitimate government of Rhodesia and the racist regime and invited its members to impose economic sanctions on oil supplies and weapons. As a response of Rhodesia were banned shipments of hides, meat, asbestos, copper, tobacco, chromium, that was a powerful blow to the member states economies. At the time, outside the UN actions were Switzerland and Germany, as they are not part of the organization. Besides all of this, the exports went to Japan, but oil and petroleum products to Rhodesia were supplied by Iran. With the permission of the Portuguese government the Rhodesian products began labeled as Portuguese, and South Africa did not support the UN economic sanctions. Then, in 1971, even the United States acknowledged the sanctions ineffectiveness and resumed nickel deliveries from Rhodesia for their companies. In the end, these sanctions have had no impact on the Rhodesia economy and in 1979 the state was destroyed by the civil war (Hufbauer G.,2009).

The more modern case of the ineffectiveness is the sanctions against Iraq and Iran. Their impact on the economy of Iraq, the country that depends on the oil exports, was very strong. The devaluation of the dinar started in the period from 1990 to 1995, against the US dollar it felled by 20 times. But after some time the program "oil - for - food" has been developed, the inflation felled, the problem of food and medicine has exhausted itself. After that, the Government has built the certain trading schemes to bypass sanctions. The invasion of the US troops in Iraq tooked place because the sanctions were ineffective.

Iran was under the influence of the US sanctions for 35 years, and no signs of the crisis were not observed in the country. The negative impact on the economy has been, but as soon as Iran has adapted to the oil blockade. Washington did not like it, because Iran was an example for all countries according to the principle how it is necessary to circumvent

sanctions. This was the reason why the United States began the negotiations with Iran on the nuclear decommissioning programs in 2013 (Lavrova E. V., 2016).

Based on the above, we can draw the following conclusions:

- sanctions are rarely achieve the desired goal;
- with time the impact of sanctions considerably weakened;
- the countries applying sanctions have a quite significant losses;
- western countries hides many cases of ineffective sanctions.

Analysis of international sanctions application experience suggests that the complexity can not be only the sanctions, but also their cancellation. The reason for this could be a bureaucracy and an emergence of pressure groups, i.e. coalitions of countries and organizations interested in maintaining restrictive measures.

It is important to understand that sanctions are not a strategy in itselfs. They can "help" in setting the desired parameters of the negotiations between the conflicting parties, but they are not able to force the State to comply with the requirements applied to him. Only a combination of sanctions with other tools makes it possible to achieve important foreign policy goals. One of these tools is the use or threat of use of military force. However, it may be more costly and less legitimate. For the states applying sanctions it is necessary to find the delicate balance between the application of selective damage to the state and the creation of positive incentives on the case with the consent of their requirements.

3.1.2 International experience of sanctions in modern world

With the onset of the XXI century, a kind of economic sanctions in the world has increased significantly.

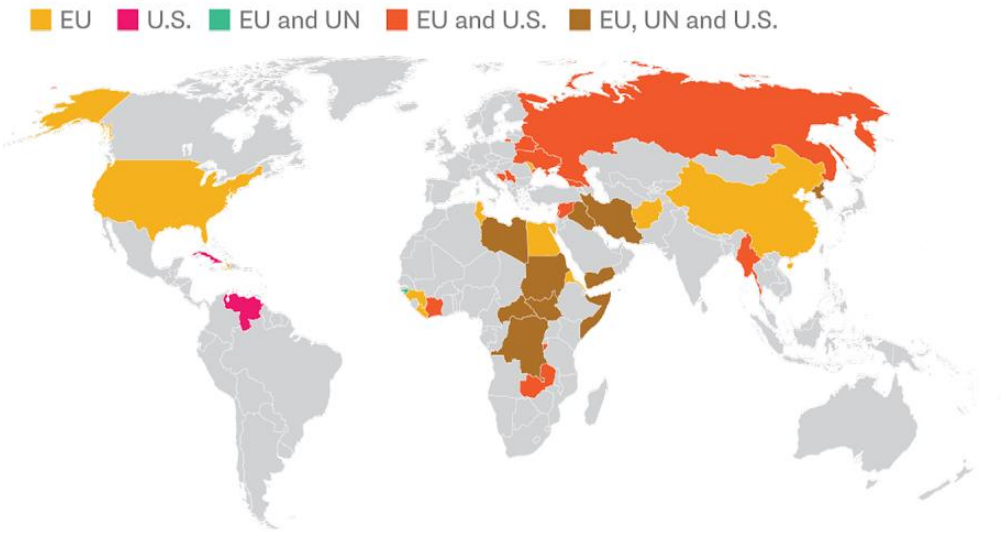
Firstly, there are the economic sanctions, which were declared by the government agencies. They can affect all citizens and all economic entities of the country, such as banks, companies, etc. For example the 2014 sanctions against Russia were for the three sectors: military production, oil production and banking sector. Penalties are divided into primary and secondary. Primary acts against citizens and economic entities, subject to sanctions. Secondary are the actions against citizens, banks, companies and countries that contribute to the violation of the sanctions. Examples include financial charges leveled against the supervisors of banks in Western Europe and the United States relating to participation in

international payments and settlements in favor of the banks and companies of Iran, Libya, Syria, Cuba, Sudan, and the penalties for such banks make billions of dollars.

Sanctions may also be linked to commodity flows, flows of financial, transport, movement of labor. The destructive effects of such sanctions are the blocking of banks operations through the SWIFT system. Despite the fact that the SWIFT is a private organization, where most founders are banks different countries, the United States and Europe have a lot of pressure on it. For example SWIFT blocked Iranian banks operation under pressure in 2012 (Hufbauer G., 2009).

With an increase in the scale of economic warfare begin arrests, confiscation of assets, which belong to the national and private banks (Fig.1).

Figure 1 Countries under sanctions by the EU, UN and US



Source: Wikipedia

By means of conducting economic warfare can also be attributed to the manipulation of commodities and financial markets. Countries that start the war (it is always the US and the UK), taking advantage of its banks, artificially regulate prices in commodity markets, the financial - interest rates on the money - the exchange rate, etc. The decline in oil prices hitting the Russian economy as well as the reduction of Russian securities prices.

3.1.3 The history of economic sanctions against Russia

Most of the economic sanctions which use for commercial, marine, credit blockade, seizure of property, etc. pursue the political goals. Western countries specifically use economic sanctions to cripple the economy, to cause unrest in the state. This economic sanctions could be called the "economic war", although the Western countries try their best to avoid such a determination.

In the XX century, the most ambitious economic war was the war against the USSR. The purpose of the war was clear: the displacement of Bolsheviks and the country direction change. The war started after 1917, when Russia's allies in the Entente declared its naval blockade. This war, with a break for the World War II lasted until the collapse of the USSR in 1991.

The West did not stop its war, even regards to Russia, which appeared after the collapse of the Soviet Union. In respect of Russia continued to operate amendments to the law on trade Vanik - Jackson, which was adopted in 1974 with the aim to remove restrictions on departure from the Soviet Jews. They also include restrictions on the import and export trade with the Soviet Union. It was abolished only in 2012, because they replaced the "Magnitsky Act", according to which the US government reserves the right to impose restrictions on th trade with Russia (Dynkin A. A., 2015).

In the early years the Soviets naval formation and the Entente commercial blockade was overcome with the help of the trade across the country to remain neutral, for example, Turkey, Persia, China.

The main solution of the sanctions was the industrialization of the Soviet economy. The aim was to reduce the dependence on external markets, concentrating on its own production and resources. In the pre-war period were built more than 10 thousand companies that produced consumer goods, all kinds of weapons and equipment.

It was possible to reach out to American companies who were in the severe crisis. They carried out the supply of equipment under the terms of commercial lending, which removes the problem of currency shortage, its installation, commissioning of the USSR during the First 5 years Plan. The industrialization of the Soviet economy was conducted entirely without injections of the foreign capital. In the future, the share of exports and

imports of the USSR became only a couple of per cent, making it invulnerable to the economic sanctions.

But in the 1970s, the Soviet Union has become more dependent on exports and imports. The world market oil price is quadrupled, and, instead to strengthen its industrial capacity, economic, social and military problems began to be solved with the help of petrodollars, which is why the impact of the Western sanctions were consistently increased. In 1986, the collapse of oil prices has occurred. Officially it wasn't the sanctions against the Soviet Union, but that collapse was planned and implemented by the United States - without a doubt, which is why after five years, the Union has ceased to exist.

Today, the United States of America became again the initiators of the sanctions. Fearful of incurring huge economic losses, the European Union countries have acceded to these sanctions, as well as the countries cooperating with the EU and with the USA.

The beginning of the sanctions emergence is the "Crimean crisis", in connection with which the United States, the EU, the Group of Seven, and the others began intensively to accuse Russia of interfering in the internal affairs of Ukraine. Foreign states urged the Russian government to comply with certain international requirements in the framework of the Budapest memorandum to all cases and matters are dealt with using the "political dialogue." However, the Russian government refused to recognize the de facto government in Ukraine, which appeared as a result of the armed revolution that does not have a national mandate. Thus, Russia has taken an informed decision what it is absolutely not hold any foreign policy dialogue.

On February 21st 2014, President Yanukovych signed an agreement on the settlement of the political crisis. Russia called on Western countries to strict enforcement of the agreement provisions, but the Russian refusal to accept EU demands much deteriorated relationship with NATO, the EU, the Council of Europe and states - partners.

After Russia supported the Crimea proclamation and accepted its offer to join the Russian Federation, the US, the EU, Australia, New Zealand and Canada have introduced the first package of sanctions. They meant the freezing of assets and visa restrictions for individuals included in special lists. Also, the sanctions prohibit doing business with these individuals and entities. Due to the deteriorating situation in the east of Ukraine, the sanctions extended. Russia declared guilty of the destruction of the territorial integrity of Ukraine, as well as military support to the rebels (Hufbauer G., 2009).

Despite the sanctions, the Russian officials reported that the decision on the imposition of sanctions by the host country (some of them) was under the US pressure.

The sanctions imposition by the European Union is the success for the American diplomacy. If the US had no effect on Europe, it unlikely would have gone so far in the sanctions. The Union really sacrificed its economies, its countries' economies, as these sanctions were at its ultimate goal is not only uneffective, but also caused the serious economic damage to Europe as a whole.

3.2 Modern sanctions against Russia

In Russia, the topic of sanctions was unpopular until recently. Under the conditions of using these economic instruments against Russia after accession to the Crimea, Russian science was not ready to give any theoretical framework, not even some practical tools to deal with them.

Although the first steps against Russia were appeared already in March 2014 and were mainly affected by individuals, the main measures against Russian organizations (banks, oil and gas companies, defense industry companies, etc.) were adopted in September 2014.

Economic sanctions against Russia are presented in Tab. 2. They concern first of all the oil and gas branches of the economy, financial and banking spheres, as well as the defense industry complex. In addition, personal sanctions were imposed on individual companies and individuals of the Russian Federation, and a ban on investment projects and supplies of equipment for two new regions of the Russian Federation, Crimea and Sevastopol, was initiated (Appendix A).

Table 2 Economic sanctions against Russia

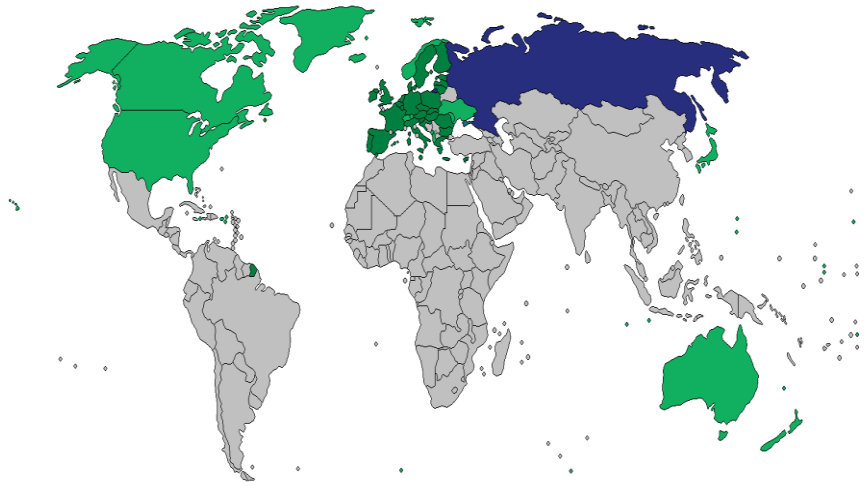
Industry of the economy	List of sanctions
Oil industry	− sanctions against individual companies and their subsidiaries, as well as related enterprises of other industries; − ban on the export of oil production and refining technologies to Russia; − freezing of existing ones and refusing to conclude new projects
Gas industry	− sanctions against individual companies and their subsidiaries, as well as related enterprises of other industries; − freezing of existing ones and refusing to conclude new projects
Financial and banking sphere	− freezing of financial assets of Russian legal entities and individuals; − disconnection of Russian banking structures from international payment systems; − restrictions on the placement of funds in Western banks; − restriction of access to credit resources; − restriction of the possibility of carrying out activities
Military-industrial complex	− prohibition of conducting operations with Russia on the export and import of arms; − ban on the export of dual-use goods to Russia, as well as any technologies that can be used for military purposes
Others	− personal sanctions against certain companies and individuals of the Russian Federation; − prohibition of investment projects, supplies of equipment and materials for infrastructure facilities, transport, energy complex of the subjects of the Russian Federation of Crimea and Sevastopol.

Source: Christensen E., 2014

A powerful tool against Russia in the modern economic war may become the US law FATKA which taxed foreign accounts. Under the guise of the US tax obligations seeks to control all foreign banks, including the Bank of Russia to destabilize the country's economy.

After the imposition of sanctions against Russia, retaliatory the counter sanctions were imposed (Fig. 2).

Figure 2 Countries that imposed sanctions against Russia



Source: Christensen E., 2014

In the first place the sanctions measures against the officials and members of the Federal Assembly of the Russian Foreign Ministry issued a list of sanctions against members of Congress. In response to Canada's sanctions issued a travel ban on 13 Canadian citizens on the territory of the Russian Federation. In the future, the lists have been expanded on the "mirror principle", but officially announce on the lists of people will not. In this case we are talking about making a ban on entry into the country, these people, as well as Russian officials have already learned at the Russian border.

When the US Treasury froze a demand operations by Visa accounts and Master Card, immediately appeared in the Russian ideas about the transition of the country to an entirely new national payment system, for example, UnionPay and JCB. In the future, the State Duma demanded a compensation damages from Visa and MasterCard. Moreover, according to the latest forecasts with complete cessation of their work in Russia, their loss will be 450 USD and 200 USD million per year respectively.

With the introduction of a new package of sanctions July 17, 2014 by Ministry of Foreign Affairs of the Russian Federation, it was reported that the United States for its actions specifically incited to bloodshed, evidenced by the attempt to place the responsibility for the situation in Ukraine on Russia (Grishin V. I., 2016).

March 19th, 2015 Russia included in the sanctions list of more than 200 foreigners.

3.2.1 Russian counter - sanctions

According to the Presidential Decree "On the application of certain special economic measures in order to ensure the security of the Russian Federation" dated August 6 on the territory of Russia was banned imports of "certain" types of agricultural products, raw materials and food for the countries and organizations involved in the sanctions. The total annual volume of imports fell under the embargo over 9 billion USD. There have also been limited to the purchase of light industry goods from foreign suppliers. The participants were all countries that were not members of the Customs Union.

At this point it is clearly seen that the introduction of the anti-Russian sanctions entails losses in Europe, not in the United States. Europe is very much affected by the Russian embargo. As a result, many European countries are trying to resist the sanctions against Russia. According to recent data the losses from the Russian retaliatory sanctions in Europe amounted about 21 billion EUR. Russia started the import substitution of many products such as production of ham in the Sverdlovsk region, parmesan cheese in Tatarstan, camembert and mascarpone in the Altai, mozzarella in Orenburg. Already in 2014, the Russian producers made up for more than 60% retired because of the prohibition of meat and milk imports.

One of the Russian attacks on the economies of the European countries were the abolition of the "South Stream" construction is the gas pipeline to Turkey, the construction of which was attended by many European countries. They lost not only additional supplies of the Russian gas, and transit revenues, but at least 400 million EUR per year.

Today the actions of Russia in the East became the mainly in all areas of China. At the same time, many eastern countries have abandoned the anti - Russian sanctions, referring to friendly relations with Russia and hope for closer economic cooperation (Christensen E., 2014).

For Russia the sanctions are important primarily because it uses the economic pressure methods. It should be noted that Russia is almost always in a disadvantaged environment, so, most likely, foreign policy and the economic value of the sanctions will increase. This is facilitated by the increasing difficulty of the military force, as well as the dependence of neighboring countries on the Russian resources. In addition, Russia has for a long time under the weight of sanctions, such as sanctions, imposed on Glavkosmos after the rocket engine deliveries to India, and, respectively, after the annexation of Crimea. Russia has an independent foreign policy, therefore, has a great opportunity to cooperate with many countries, which are also under the influence of the sanctions are able to safely withstand the economic impact.

The main thing in the fight against the sanctions it does not remain in isolation. For example, France could be an excellent partner for Russia in the event of the sanctions imposition for the Middle Eastern countries. One of the winning conditions of the struggle between Russia and sanctions can be work related international institutions. It is also a way of getting rid of the effect of the sanctions may serve to establish relations of Russian large companies to other countries, especially if the state will support them in this. Europe, for example, wants to toughen the sanctions against Russia, but at the same time, afraid to do it, since this tightening has the opposite effect for the EU. Whatever the sanctions and restrictions against Russia it's sure to affect the world economy, in particular on the European economy (Appendix B).

Moreover, Russia imposed the sanctions are not so terrible, for Europe itself. In the near future in the country will be the modernization of production, agriculture, begin serious development of the food industry. Many analysts also believe that the sanctions against Russia will have only benefit, but there is one drawback - the price increase, but this can be avoided. But the situation for EU is cardinally different. At the minimum, the EU will lose 12 billion EUR, which is quite an impressive amount for the economies of these countries. Russia is the second largest state where Europe exports its goods. In the first place the United States, but that the geographical proximity of Russia makes exports more profitable (aif.ru). Losing this market in Europe the agriculture will begin to die rapidly, that in the future will have an impact on the rest of the industry. Losses due to agriculture will suffer first transport companies, banks continue to suffer, which gave loans to farmers. Enormous losses incur

insurance companies to compensate losses of all branches. The sanctions in the near future in Europe will cause a new crisis and many waves of protests (Malkov S. Y., 2016).

Today, the European people do not bother the Ukrainian question. They are worring about the economic welfare of the EU countries as they began to feel the losses (Tab. 3).

Table 3 The consequences of economic sanctions for Russia and Western countries

Sanctions	Consequences for	
	Russia	Western countries
Sanctions against Russia		
Restriction of access to credit resources.	The crisis of the banking system, loss of its liquidity, reduction of investment opportunities of the economy. Support for the liquidity of the banking system is ensured by the actions of the Russian Central Bank and the use of the resources of the Reserve Fund.	Decrease in the level of banking system profitability. Expansion of the ruble settlement zone.
Ban on the sale of oil and gas equipment.	Insignificant decrease production of oil and gas.	Increase in purchasing prices for oil and gas from Russia.
Prohibition on the technologies export and import.	Expansion of technology export to the countries of the East, Africa and South America. Improving the technological capabilities of its own production.	The high risk of significant economic losses (over 120 billion USD annually)
Russian counter-sunctions		
The ban on the meat import.	Development of its own meat production, the emergence of its new	Losses for Denmark account for 8.9% of total exports, for the United States - 7%.

	directions. Increase in the supply from Brazil, Argentina.	Reduction of jobs, bankruptcy of farmers, growth of social services.
The ban on the fish import.	Development of own fishing industry, improvement of logistics, changing the system of organizing fish trade by creating a specialized exchange. Increase in the supply from Brazil, Argentina.	The losses of Norway are up to 70% of total exports. Reduction of jobs, bankruptcy of farmers, growth of social tension.
The ban on the milk products import.	Development of own dairy production, improvement of logistics. Only during 2014-2015. In some regions of the country, the share of domestic producers rose from 60 to 90%. Development of new directions of dairy production, in particular cheese.	The EU losses are estimated at 16% of milk exports, 30% - oils and 63% - curds and cheeses. Reduction of jobs, bankruptcy of farmers, growth of social tension.
The ban on the vegetables and fruits import.	There is a real possibility of full compensation for losses by domestic producers due to improved logistics. The volume of supplies from Morocco, the countries of South America is increasing.	The reduction in exports is approximately 30%. Reduction of jobs, bankruptcy of farmers, the growth of social tension.

Source: Malkov S. Y., 2016

After analyzing the table, it can be concluded that the sanctions open the possibility of the new Russian strategic development, strengthening of the new foreign economic relations with the countries of the East. For Europe the sanctions are the loss of markets and revenue.

3.3 Impact of economic sanctions on EU-Russian Trade Flow

After Russia annexed Crimea in early 2014 and then intervened in the Eastern part of Ukraine, the European Union wanted to show its disapproval and put a pressure on Russia to change its behaviour. A wide variety of measures were taken, including the imposition of individual restrictions, such as asset freezes and travel bans, but also the suspension of development loans from the European Bank for Reconstruction and Development. But the EU (together with the United States) also took, in July and September 2014, a set of broader measures: limited access to the EU primary and secondary capital markets for targeted the Russian financial institutions, energy and defence companies; export and import bans on trade in arms; export ban for dual-use goods and reduction of Russia's access to sensitive technologies and services linked to the oil production (Nureeva R. M., 2015).

In response, Russia boycotted an imported perishable goods and some raw materials (meat, fish and vegetables) from the countries that had imposed sanctions. This set of measures is what is commonly called the economic sanctions (and Russian counter-sanctions). The EU has been extended at regular intervals and the restrictive measures were again extended until 23 June 2017, then discussed by the European Council on June 28th.

The purpose of economic sanctions is first of all to signal an international disapproval with respect to certain specific policies and eventually force the targeted country to reverse them. Historically only in one-third of the cases the sanctions have actually succeeded, which is defined as the sanctions in place actually contributing the desired policy change. Not surprisingly the success of sanctions is largely influenced by the economic importance of the country that imposes them. Does not mean that the European sanctions will likely success even if it is clear that extending the sanctions can damage the diplomatic relations between the EU and Russia. The main purpose is to measure their impact on trade flows (Hufbauer G., 2009).

According to the Austrian Institute of Economic Research, the strong fall in exports from the EU to Russia was due, at least partially, to the imposition of sanctions and counter sanctions. The authors argue that sanctions and counter-sanctions have a relative low direct impact on the trade flows of targeted products (especially because some of the contracts have been signed before the imposition of sanctions and thus are exempted). But they also found that the potential trade loss in terms of value added (34 billion EUR in the short - run and 92

billion EUR in the long - run) and employment were attributable to deterioration in trade relations that extended sanctions can exacerbate. That study thus concludes that the sanctions have a serious consequences on the employment in the EU (Christensen E., 2015).

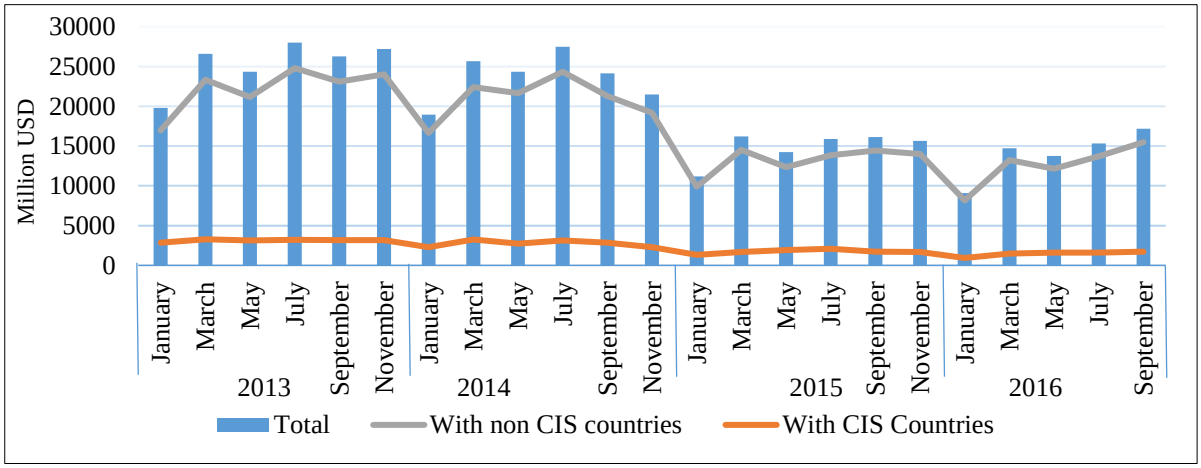
Obviously, the key to measure the impact of the sanctions is to distinguish the effects of economic sanctions on trade flows from the effects caused by the very severe downturn that is hitting the Russian economy. Indeed, the Russian imports in general have declined (Fig. 3*)* as the Russian economy went into recession in 2014 - 2015, mostly because of the decline in the oil prices, thus undermining export revenues (fedstat.ru).

There is exist a simple way to disentangle the impact on bilateral merchandise trade of the recession, on the one hand, and EU sanctions (plus counter sanctions), on the other: one has to look only at the share of the EU (and other countries that imposed sanctions, like the US and Japan,) in Russian imports. If these shares have not changed significantly, cannot be said that the sanctions have played a major role in undermining trade flows between the EU and Russia.

Fig. 3 shows already that the share of non - CIS countries in Russian imports does not seem to have been affected by the sanctions.

As an aside, the share of CIS countries in Russian imports has not increased over the last four years. This suggests that the creation of the Eurasian Economic Union (Russia's key economic project) has not had a visible impact on trade flows, at least so far.

Figure 3 Monthly Russian imports



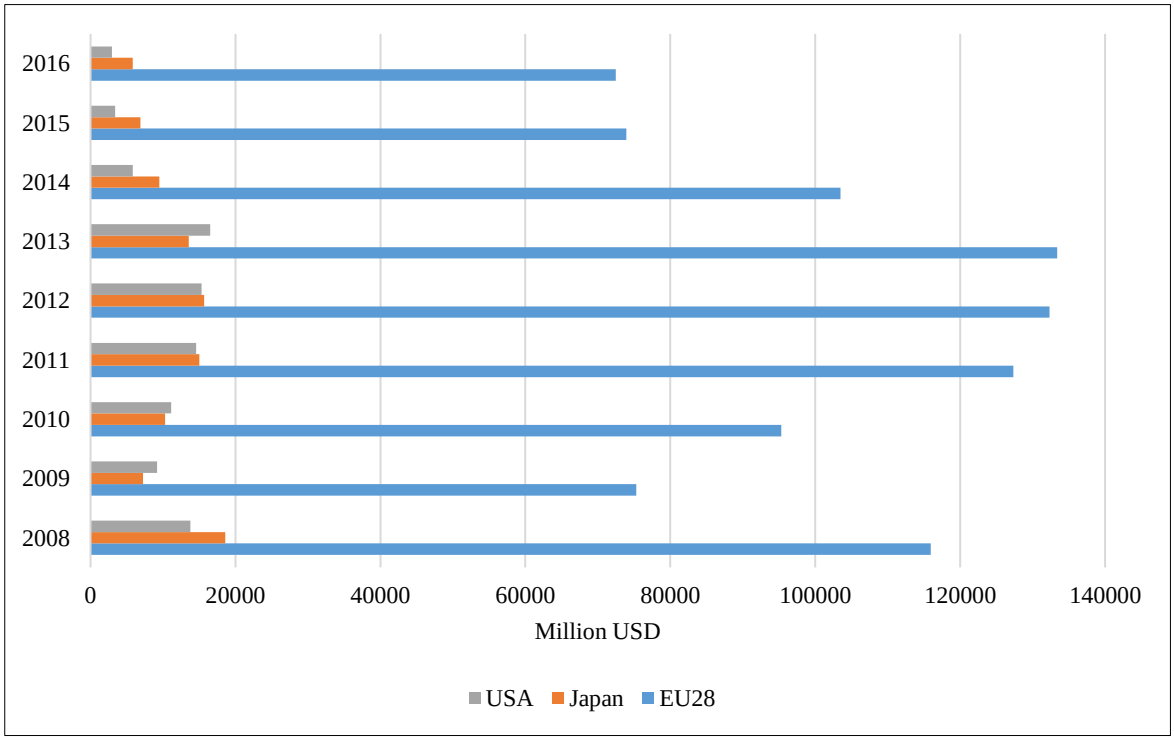
Source: fedstat.ru

Go into detail, the Fig. 4 shows the monthly values of Russian goods imported from EU member states, the US and Japan compared to the total Russian goods imported.

The view that the sanctions had a strong impact on trade would imply that the share of the EU in overall Russian imports has declined (Fig.4). However, since the EU first began the imposition of sanctions, the share of imports from the EU member states has remained on average pretty stable (at around 50% of the overall goods imported) until the end of 2015. The shares of imports from Japan and the US started to decrease in January 2014 and remained stable overall (at around 3%) for next two years. The role of those two economies is much more lower in Russian trade than in the EU trade.

The purpose of this contribution was only to investigate the impact of the sanctions on trade flows - and thus their economic costs to the EU. The result is simple and clear: the fact that the share of the EU countries in Russian imports has been stable indicates that the impact of the sanctions on trade flows has been minimal. The observed fall in exports from the EU to Russia was entirely due to the recession in Russia (Sukiasyan A. A.,2017).

Figure 4 Russian imports by partner countries



Source: fedstat.ru

The key problem in measuring the impact of the EU sanctions is that their onset coincided with the fall of oil prices and the recession in Russia. The political opposition to the sanctions has been based often on the simple observation that "the EU exports to Russia have fallen a lot since the sanctions were started" (often up to 40%), implying that the sanctions have been very costly. The approach suggests that this reason is completely wrong. The economic cost of the sanctions has been close to zero, at least in terms of foregone exports from the EU.

Of course it is possible that the sanctions had a considerable negative impact on the Russian economy. But that is a different issue. The trade data tells only that the EU exporters cannot complain of facing specific disadvantages in the Russian markets that one can impute to the sanctions.

3.4 Implications for the Russian economy and its sectors, industries and citizens

Attraction of refinancing has been limited for many Russian companies, as they seemed cut off from the Western debt markets due to the imposition of sanctions. Companies have started to ask for the help from the state, as a threat of non - payment of debts. The external debt of Russian companies amounted to 630 billion USD, but only 450 billion was among the assets of the Russian Central Bank, the reserve fund and the National Welfare Fund. Regarding this, the Russian enterprises have balanced the loss, that means that, the financial result of enterprises profitable was lower than the result of loss-making companies and enterprises. Based on these indicators, in 2008 the crisis was repeated (money.cnn.com).

The military industry.

Due to the prices raising for the defense products there is a problem with the Armed Forces rearmament, their full equipment. In addition to the prices rising was also affected the pressure on Russia from outside. Today, the budget reduced defense spending, some projects were postponed to the future years.

The automotive industry.

In 2014, the car manufacturers raised prices for automotive products due to the weakening of the ruble. Prices of cars continued to grow, and it has caused a great demand for cars. Moreover, a deficit of motor companies began to be observed, some dealers and suppliers were shipping cars in other countries, which were intended for the national market.

As for the "AvtoVAZ", its losses tripled and amounted to 25 billion RUB, of which 2.5 billion RUB, the company lost when changing currency.

General Motors has finished its existence in St. Petersburg in 2015. This was due to very complex long-term prospects in the Russian market.

The brand Ssang Young was stopped its activities in Russia, plus they stopped also the cars export.

The Volkswagen factory in Kaluga has been reduced to 600 people. They explain this by the weak Russian economy and high interest rates.

In general, car sales fell by 43% in the first quarter and the car market fell by 36.3%.

The aerospace Industry

The space industry funding has been reduced by 10%, which threatens very existence of the space craft. Began the wages delay, many workers did not come to change. Today, the Federal Space Agency has prepared the final space industry development plan for the 2016 - 2025 years, eliminating several scientific missions and reducing costs by up to 2 trillion RUB.

The Retail Industry.

It was planned that due to the fall of the ruble on electronics prices will rise by 20%, but there was the same situation as with cars - started the hype, the demand has increased enormously, and, ultimately, prices have soared more than by third times. Clothing stores, cosmetics, luxury goods are also increased their prices by 30%.

The collapse of the ruble touched also food prices, they have risen by 30 - 35% and continues to rise. The term was reduced to revise the purchasing prices retailers from 45 to 14 days. It was adopted the memorandum on the non-increase of prices for socially important goods. In 2015 retail trade turnover felled by 7%.

Banking System.

Some banks have stopped issuing loans and mortgages because of the ruble weakening and raising the key rate from 10.5% to 17% of the Russian Bank. More than 50 thousand Russian citizens will not be able to cope with the repayment of foreign currency mortgages, so they faced the deprivation of property. More than five million people refused to return the loans taken by them, so the amount of debt to the banks is more than one trillion RUB (utmagazine.ru).

In 2015 Russian banks faced with more serious problems than in 2009, especially Sberbank, which holds about 45% of Russian deposits, its revenues declined by 20%, and the second largest bank "VTB" - by 96%.

Science.

The funding for research institutes of RAS was reduced by 5%. Today they are trying to prevent the reduction of the state.

Law Enforcement Agencies.

About the economic crisis there was the instruction to reduce the state up to 10% in the Interior Ministry. Also, the interior ministry budget in 2015 was reduced by 111.3 billion RUB, the lack of funds will be offset by the mass re-certification of the employees.

3.5 Financial crisis

The Russian financial crisis also had an impact on foreign companies and brands that were doing business in Russia. For example, Siemens revenue fell by 14%, it was a quite large for the Russian market. The prices rising for milk and milk products were affected to the Danone Company (Zufarova E. R., 2017).

Due to the Russian government instability, Finland called his companies to look for other partners in more comfortable markets.

Denmark Companies withdrawn their capital from Russia, 41% of all German companies conducting their activities in Russia have slowed investment flows into the country. Russian workers laid off, projects postponed until the "better times".

Due to the difficult economic situation in the Russian budget, some changes were introduced by reducing costs. It supposed to reduce the expenditures of the state budget in 2017 to 10%. It planned to reduce the budget costs over the next three years by 5% every year. There has been a reduction in the financing of investment projects in at least half of it.

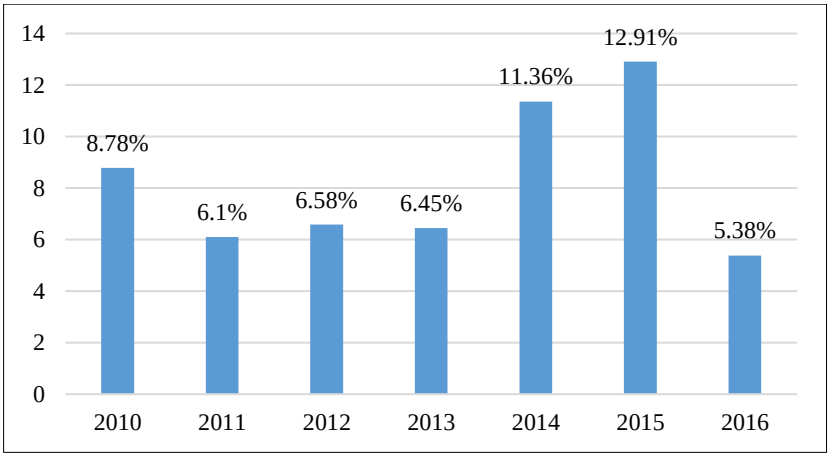
In addition to the reduction in funding space industry by 10%, the reduction occurred in transport infrastructure by 10%, including the abolition of the new projects for Russian Railways.

In March 2016 it was amended to allow to reduce budget spending by 153 billion RUB. In April 2016 was suspended indexation of salaries of civil servants, military personnel, judges and others, guided by the high level of inflation (Nureeva R. M., 2015).

Also for combating the financial crisis it is the necessary to spend money. Only in the first quarter of 2016 was spent more than 22 billion RUB.

The economic crisis in Russia touched also the citizens' social welfare (Fig. 5).

Figure 5 Dynamics of annual inflation in Russia



Source: gks.ru

Annual inflation in Russia in 2016 amounted to 5.4%, with the key rate to 10% at year - end. It should be noted as such the record low inflation in Russia and became the lowest in the country's history. The inflation rate against the 2015 fell by more than twice - the inflation rate in 2015 was 12.9%.

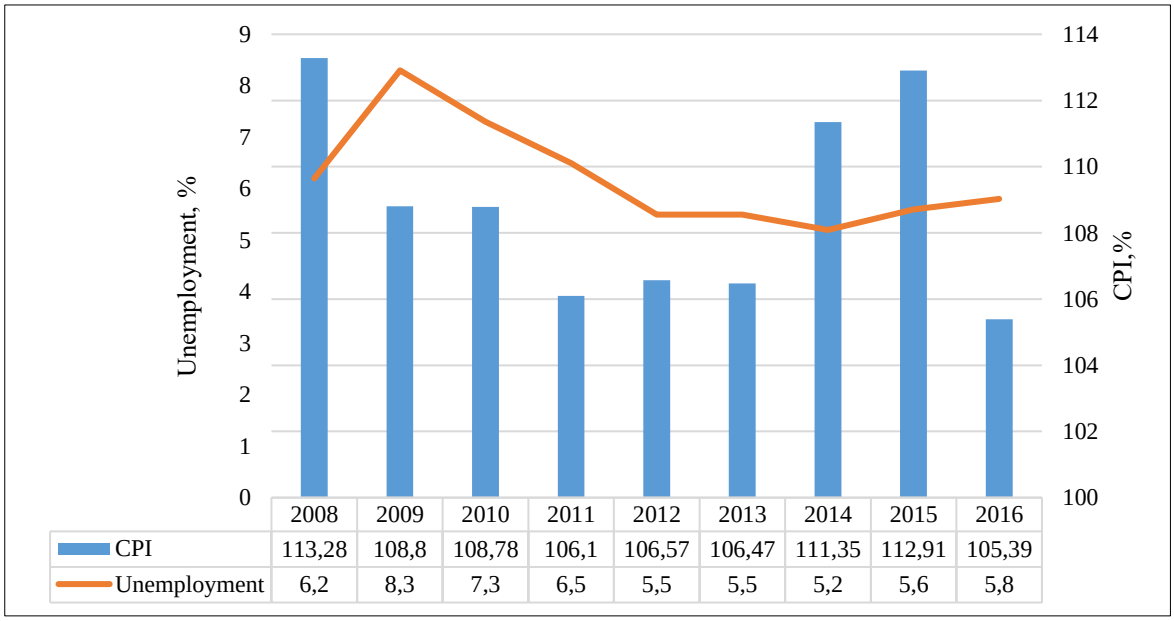
The purpose of the inflation for 2017, which the Russian Bank announced after the meeting of the Board of Directors dated October 28th, 2016, made on the basis on the market situation analysis, it provides for a further reduction, namely: "In view of the decision and the preservation of a moderately tight monetary policy, according to the forecast of the Russian Bank, the annual inflation will be less than 4.5% in October 2017 and subsequently fall to the target level of 4% at the end of 2017".

Today, the scheduled to drop in real incomes of the population was 2.8%, although it previously expected an increase of 0.4 %. The main reason for the decrease of income was inflation, which amounted to 11.4 %, instead of the declared 5% in 2014. The decline in real wages by 9% was recorded in 2015 (Nureeva R. M., 2015).

The rise of unemployment also has place to be: in 2014 it was insignificant, amounting to 4.8 - 5.2% (Fig. 6), but already in 2015 under the reduction it felled more than

127 thousand people, that is, the unemployment rose to 12% in the country. For 78 thousand people salaries in enterprises were suspended at the beginning of 2016.

Figure 6 The dynamics of the consumer price index and unemployment rate



	2008	2009	2010	2011	2012	2013	2014	2015	2016
CPI	113,28	108,8	108,78	106,1	106,57	106,47	111,35	112,91	105,39
Unemployment	6,2	8,3	7,3	6,5	5,5	5,5	5,2	5,6	5,8

Source: fedstat.ru

In 2017 there was the ambiguous situation: on the one hand, Russia still has not abolished the sanctions that hit the economy and the development of many industries. The unemployment in these cases becomes quite characteristic. Many foreign companies, hastily cease cooperation with the domestic market, closed their offices. At the same time, some industrial facilities may not continue without the imported raw materials.

But there is also the positive thing. In 2017 the country's economy is aimed at creating new jobs by opening domestic factories and manufactures. Russia has a very large resource base, but there is the issue of recycling and new product shortage occurs. It is evident that the speaker is quite good, because the potential of this development path allows you to bring Russia to the new level.

However, these reforms do not happen immediately. It is painstaking process, the results of which are unlikely to appear in 2016 or 2017. That is why the Russian government predicts that in the next year the unemployment rate will rise to 6.4%. They can be affected the economy’s sectors such as tourism, construction, branch of service.

Among the reasons why this deterioration will occur, experts call the reduction in the demand for many commodities, the export decline in most countries decreasing in the share of production. The steps of the Central Bank, which is trying to stabilize the ruble against other currencies, also indirectly influence the situation. Therefore, in the coming years, unemployment will increase slightly in some regions, it is possible that this process will take place almost imperceptibly.

3.6 Russian agrarian sector

Russia is acting against the sanctions what cover many areas that are strategically important for the country development, however, the most significant is the agricultural sector. It provides food security and food sovereignty of the state, which implies the satisfaction of the basic nutritional needs due to the domestic agricultural sector.

Russia has a huge potential. The country has everything for its disclosure: a huge amount of fertile soil, plenty of rivers and lakes, temperate climate, access to the sea and oceans. So why is this potential was not discovered before? The answer is quite simple: this was not necessary. Even Darwin said: the evolution is the ability to adapt to the new environmental conditions. Now, in order to survive, Russia must adapt to the new economic conditions. Perhaps, the current situation has a bad influence on the present, but for sure it will be a reliable support in the future.

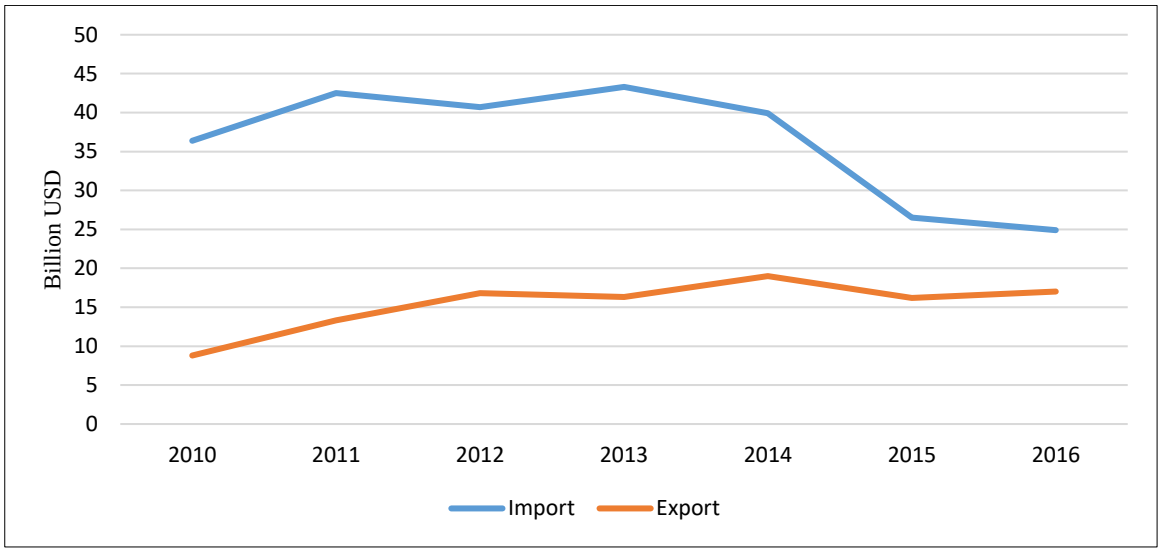
International sanctions established for Russia, the country's economy put in an extreme situation that requires extraordinary and urgent decisions to exit the situation. According to some expert’s opinions, the import ban of the European and American agricultural products should stimulate the Russian producers to expand a production. Other experts were of the view that the Russian agricultural producers now are not able to meet all population’s nutrition needs independently.

The main trading partner of Russia, until recently, had been the European Union - the trade turnover with EU countries amounted to 370 billion USD (compared with US just 26 billion USD) (Glebova I. P.,2017).

August 1st, 2014 Russian President Vladimir Putin signed the Decree banning the import of agricultural products, raw materials and foodstuffs from the countries that have applied sanctions against Russia (US, EU, Canada, Australia, Norway). This had a

significant impact on the dynamics of Russian imports and exports (Fig. 7). This Decree intended to ban imports of beef, pork, poultry, dairy products, fruits and many other products. It meets in the general state policy of the Russian Federation on development of the agro-industrial production (Decree N 560., 2014).

Fugure 7 Dynamics of Russian export and import in agrarian sector



Source: gks.ru, Rosstat

Import of food and agricultural products decreased by 6.3%, but still significantly exceeds exports - 24.9 billion USD. In 2015, food and agricultural products imports by 64% or 10.3 billion USD exceeded exports. In 2016, the gap fell to 46% or 7.9 billion USD.

3.6.1 Agriculture in the system of Economic Sanctions

The sanctions imposition has led to the loss of market sales of food products for the EU. According to the European Commission data for the 3rd quarter 2014 the EU in the field of agriculture has the loss in export of equipment worth about 50% (around 5 billion EUR) of the amount, which was introduced to the sanctions. After the introduction of the sanctions package is only Germany lost around 800 million EUR. For Russia, it is turned only change trading partners from Europe to Asia and Latin America. Domestic production can not

compete with overseas due to their high cost, which is caused by the high cost of production. This problem solved in most countries by providing government subsidies (mcx.ru).

Also, the state pays the grants to farmers for beginners up to 3 million RUB. Per the Ministry of Agriculture, only the 2016 data received grants for about 4500 farmers. It is also planned that in 2017 the credit will be made available under the 5% per annum for people who are directly related to the agriculture. Given that, the average interest rate on consumer loans is 17%, then the measure is a good prospect for farmers (Decree N 320, 2015).

Analyzing all the above, it can be concluded that the introduction of the Western sanctions against Russia gave an impetus to the development of agriculture in the country. Russia embarked on a path of isolation on the world market, reducing the import of products from Europe and the growth of agricultural products exports abroad. Already, the country provided their own grain, butter, potatoes and sugar by more than 90%, while poultry and pork by 70%. Consider the execution plan for the crop in Russia, according to Tab. 4.

Table 4 Implementation Plan for Agriculture in 2016

Indicator	Plan	Fact	Performance, %
1. Gross harvest in farms of all categories, thousands of tons:			
− grain and leguminous	95000.0	104211.9	109.7
− flax and hemp	54.7	37.8	69.2
− sugar beet	36310.0	33513.4	92.3
− potatoes	31000.0	31109.2	100.4
2. Landing area, thousand ha:			
− perennial crops	6.4	8.0	125.1
− vineyards	7.9	4.1	51.9
3. The share of domestic agricultural products, raw materials and food in the total amount of resources, %			
− corn	99.5	98.9	99.4
− sugar produced from sugar beet	79.3	81.7	102.2
− vegetable oil	83.0	84.4	101.4
− potatoes	98.2	97.4	99.2

Soutce: gks.ru

The data in Tab. 4 shows that the actual gross yield for cereals and legumes more than the planned 9.7% in 2016, and over the potatoes by 0.4%. The area of planting perennial crops exceeds the planned 25.1%. There is a failure to plan for the collection of flax and hemp by 30.8% and sugar beet by 7.7%. Also, only 51.9% of planned land was planted with vineyards.

The Russian government after the imposition of sanctions responded immediately to emergency measures to stabilize the economy, the result was the decrease in imports from the EU. Consider the dynamics of production indicators of the main branches of Russian agricultural industry (Tab. 5).

Table 5 Dynamics of production in Russian agricultural sector (in percentage)

Indicators/year	1990	2015	2016
Agriculture Products	100	89.3	92.6
Crop Production	100	119.5	125.5
Livestock Products	100	66.4	67.8
Indexes of GDP physical volume	95.9	101.3	100.6

Source: gks.ru

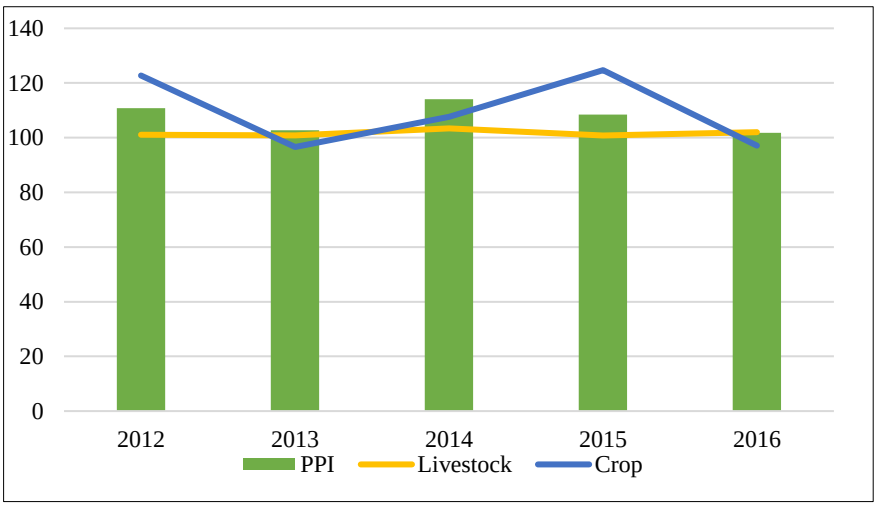
From the data presented in Tab. 5, it is possible to identify the positive and negative trend. The positive is growth in crop production. The negative is reducing livestock production and agriculture in general, compared with 1990. It should also be noted that the agricultural indicators in 2015 in the whole industry were increased compared with the year 2014 by 3.3%. Thus, the Russian agriculture is at the satisfactory level of development.

The most vulnerable is the position of the Russian agricultural sector in the meat and dairy products. The domestic market of meat and meat products is the largest and fastest growing segment of the food market, but its volume is still significantly less than the volume of consumption. Lack of own animal products causes involve imported products, which reduces the competitiveness of the domestic goods. At the same time, food embargo provides the unique chance for domestic producers to take their rightful place in the market, increasing its effectiveness.

More serious problems exist in the dairy direction of the Russian food market, its dependence on imports is much higher. At the same time, Russia is one of the most promising countries in terms of consumption of dairy products, which increased by an average of 9.1% per year. In this connection, it is necessary to provide import substitution and growth of production in the industry (Sandu I. S., 2017).

As mentioned above, the number of required agricultural goods on the Russian market increases, but also the consumer price index on them increased by approximately 10 - 15% compared to the time before sanctions (Fig. 8).

Figure 8 The dynamics of the Producer Price Index (in percentage change compared with previous year) and Price indices of agricultural producers in Russia



Source: gks.ru

Today, the Russian agriculture is characterized by the high resistance to the crisis and sustainable development. The growth of agricultural production in Russia (40% in 2005 - 2015) is comparable to the performance of countries such as Brazil and India. In 2016, this sector showed a growth rate of production up to 2 - 3%, which is indicative of its role as a social and economic mechanisms to mitigate the effects of cyclical economic development. The share of unprofitable enterprises in agriculture decreased from 41.7% in 2005 to 12.4% in 2015.

According to the agribusiness gross, the Russian agricultural production is one of the largest in the world. Russian producers in 2015 provide up to 99% of the population needs in corn, 97% - in potato, 84% - in vegetable oils and sugar, 85% - in meat and meat

products, 81% - in milk and milk products. We can say that most of products target for the Doctrine of the Russian food safety are exceeded.

The Russian agricultural sector is export - oriented and, in many positions, globally competitive sector. The strongest positions Russia takes on the world grain market. According to the USDA, Russia's share in world total exports of wheat rose from 4% in 2001 - 2002 up to 14% in 2014 - 2015. Russia is one of the leading exporters of mineral fertilizers, which is in the third place in the structure of Russian exports after Mining and Metallurgy products (Sandu I. S., 2017).

Depreciation of fixed assets in agriculture (36.6% at the end of 2014) is lower than in the whole of the Russian economy (47.9%). This is primarily due to the intensive modernization of cattle - breeding complexes. At the same time provide for the organization of agricultural machinery reducing. In the years 2010 - 2014 the fleet of tractors and combine harvesters decreased by 16 - 20%, the park of forage harvesters and plows decreased by 25%.

Availability of labor resources in the Russian agro - industrial complex is higher than in developed countries, but the low level of qualification creates a number of serious constraints, which are factors of structural unemployment in rural areas. Labour productivity in agriculture is increasing in the last three years by an average of 4% per year. This growth is also reflected in the wages increase in the industry, in 2015 the average monthly nominal wage of agricultural workers was 21.6 thousand RUB. But its growth rate is twice lower than in the whole economy.

As a result, in 2015, there were nearly 400 thousand square kilometers (40 million ha), permanently or temporarily unused farmland. In Russia, degraded 0.5 million ha of irrigated land (more than 11% of the total area) and up to 1.8 million ha of reclaimed land (over 37%) (Russtat).

3.6.3 The economic consequences of the Russian food embargo

After the introduction of counter - sanctions in Russia, the accelerated inflation began for meat, fish, dairy products and fruit and vegetable products (Appendix C). The faster growth of prices than for the previous 5 years for meat and poultry, for fish and seafood continued until May 2015, for milk and dairy products - until July 2015, for vegetables and fruits, outside the summer season, continues today.

Accumulated inflation for August 2014 - January 2016 for these product groups significantly exceeds the same figure calculated by the average inflation rate for the same months in 2009 - 2013. According to the Tab. 6: for meat and poultry - 113%, instead of 108%, for fish and seafood - 136%, instead of 110%, for milk and dairy products - 118%, instead of 116%, for fruits and vegetables - 139%, instead of 98% (Glebova I. P., 2017.

Table 6 Chain CPI for anti - sanction groups of food, current and estimated

Name of food group	Chain CPI (in %), calculated based on	
	Current prices growth in July 2014 - January 2016	Average prices growth for similar months in 2009 - 2013
Meat and poultry	113	108
Fish and seafood	136	110
Milk and milk products	118	116
Fruit and vegetable products	139	98

Sources: Rosstat, FBK calculations

The cost of consumption of anti - sanction goods due to inflation has grown quite significantly. The total value of the average consumption of meat and poultry, fish and seafood, milk and dairy products, fruit and vegetable products (the volume of consumption is fixed at the level of the average monthly volume of consumption of these products by the Russian president in 2013) for the period of August 2014 - January 2016, calculated based on average growth rates of prices for these product groups in 2009 - 2013 by 809.6 billion RUB. This amount, of course it is not only the consumer's payment for the introduced food embargo, but also the consequence of the sharp weakening of the ruble exchange rate since the end of 2014. However, do not overestimate the impact of the fall of the ruble. The fact is that the share of food imports in the commodity turnover declined almost in two times in August 2014 - January 2016: from 11.3% in the second quarter of 2014 to 6.3% in the fourth quarter of 2015 (Rosstat). The volume of imports for anti - sanction goods also significantly decreased in 2014 - 2015, while the cost of importing these products from non - CIS countries, measured in USD, was reduced even more quickly (Tab. 7).

Expenses for imports of milk and cream condensed from non - CIS countries in 2015 in USD decreased more than 4 times (in 2015 to 21% of the level of 2014), meat and fish - almost twice. Considering that the dollar rate for this period also doubled (as of the end of July 2014 it was 34.64 RUB, at the end of December 2015 - 69.66 RUB), talk about the growth of the cost of imports of these products, measured in rubles, not necessary. Thus, explaining the growth of consumer spending on this product only by changing the ruble exchange rate is incorrect (Tab. 7).

Table 7 Russia's imports of selected key products

Name of product	Total		non−CIS states		CIS states	
	thousand tons	mln. USD	thousand tons	mln. USD	thousand tons	mln. USD
2014						
Meat fresh and frozen	1011.6	4271.7	885.8	3746.7	125.8	524.9
Poultry fresh and frozen	452.5	798.3	349.0	561.3	103.6	237.0
Fish fresh and frozen	649.2	1946.4	639.0	1908.7	10.3	37.8
Milk and cream, concentrated	180.9	627.4	21.2	88.5	159.7	538.9
2015						
Meat fresh and frozen	743.6	2469.6	569.4	1954.9	174.3	514.7
Poultry fresh and frozen	253.4	362.4	128.7	175.5	124.7	186.9
Fish fresh and frozen	400.8	1027.0	391.7	1008.6	9.1	18.4
Milk and cream, concentrated	200.0	411.7	7.1	18.2	193.0	393.5
2016						
Meat fresh and frozen	625.9	1.766	481.5	1 331.0	144.4	435.4
Poultry fresh and frozen	223.7	316.2	108.0	143.0	115.8	173.2
Fish fresh and frozen	358.4	979.8	346.2	959.8	12.2	20.0
Milk and cream, concentrated	230.2	497.3	42.1	91.7	188.1	405.6

Sources: FTS, FBK calculations

In the expert evaluation of the contribution of anti - suctions and the weakening of the ruble, the fact that the population of Russia in the period August 2014 - January 2016 was forced to pay a huge price for the accelerated inflation, it is proposed to start from the ratio 50/50. Thus, the price of unsanctions for the population of Russia amounted to more than 400 billion RUB during this period. The fact that food inflation in the fall of 2014 was noticeably accelerated as a result of unsanctions was recognized even in official documents: in the Forecast of the Social and Economic Development of the Russian Federation for 2015 and the Planning Period 2016 - 2017 (Ministry of Economic Development of Russia) and in the Basic Directions of the Unified State monetary policy for 2015 and the period 2016 and 2017 (Bank of Russia).

There are several reasons for the acceleration of inflation: a decrease in the supply of goods naturally leads to an increase in prices for them; in conditions of an insufficient level of competition characteristic of the Russian economy, producers and sellers of goods tend to raise prices as a matter of priority; growth of transportation costs - goods come either from more distant regions or from the same Europe, but bypasses - through Belarus, or from South America, etc. For comparison, the price of unsanctions (more than 400 billion RUB) is comparable to the annual expenditures of the consolidated budget of the Russian Federation for higher and postgraduate education (in 2014 - 519.7 billion RUB).

On July 31st, 2015, the Government of the Russian Federation approved Resolution No. 774 "On the Approval of the Rules for the Destruction of Agricultural Products, Raw Materials and Foods Listed on the List of Agricultural Products, Raw Materials and Foodstuffs originating in the United States of America, the countries of the European Union, Canada, Australia and Norway and which until August 5th, 2016 (inclusive) are banned for import into the Russian Federation." According to this resolution, the sanctions products must be seized and destroyed in any accessible way, considering the impact on the environment.

More than 750 tons of foodstuffs destroyed in 3 months of 2015 could meet the daily need for food of the order of half a million people or provide food to all orphans and children left without parental care (according to the Federal State Statistics Service at the end of 2014 – 65 thousand children), within 10 days (Christensen E., 2014).

4 Practical Part

The practical part includes observation of financial aspects in Russian agricultural sector. Further will be described amount for previous years and current situation for import and export situation under the sanctions.

First of all, in the analytical part the volume of export and import in agrarian sector will be observed during some years. The trends in amount will be predicted for nearest years.

Another point is to find the connection between Gross Domestic Product (GDP) and Foreign Trade Turnover (FTT). According to this research, find a trend and predict the situation in the future.

Econometric model is one of the tools for analysis of country's GDP. Three econometric models will be built: export, import and GSP econometric modeling. In theoretical part was mentioned that sanctions have a big affect on economic situation in Russia.

Another point is to forecast the situation in the Russian agrarian sector, based on the import and export data. Moreover, since the development in agrarian sector are influenced by the changes in GDP, it is possible to forecast several variants of the Russian agricultural complex development: internal - oriented production and external - oriented production and give some recommendations of the optimal way out of the economic crisis.

4.1 Economic analysis

Sectoral sanctions that were introduced against Russia in 3rd quarter 2014, almost immediately began to have a negative impact on the Russian economy. The task of assessing damage from sanctions was carried out in several stages. The key step in the assessment was the observation of the the volume of export and import in agrarian sector, how the amounts were influenced by the sanctions.

Russia plays a big role for world agribusiness. The data of international trade and economic indicators will be taken for the comparison and forecasting.

4.1.1 Place of agrarian sector in country's GDP

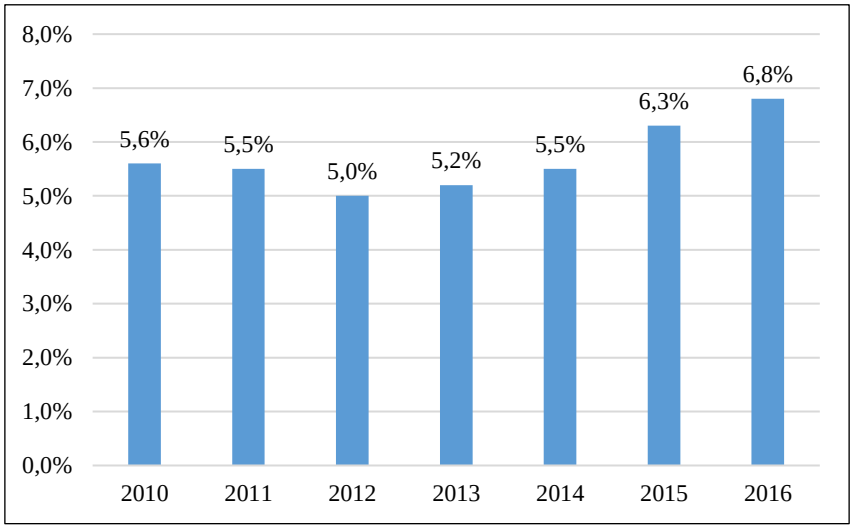
Agriculture is a branch of the country's economy, which not only produces the products most needed for human beings, but also acts as a catalyst for economic development. The high share of the agrarian sector in the country's GDP, as a rule, is characteristic for developing countries.

In economically developed countries, the share of the agrarian industry in GDP is low. But this does not mean that these countries are experiencing food problems. On the contrary, modern technologies used in agriculture by developed countries make it possible to obtain excellent results with relatively small investments.

In the Russian Federation, agriculture has more than 4% in the structure of GDP. The volume of agricultural production in Russia in 2016 is 90 billion USD. Today, more than 9% of all Russian workers work in the agrarian sector.

As for the share of agricultural products, the export of food in 2016 increased by 5%, which is almost 8 billion USD inferior to its imports. It is influencing on GDP (Fig. 9).

Figure 9 Share of agricultural products in total GDP



Source: Rosstat

At the end of 2015, imports of food and agricultural products by 64% or 10.3 billion USD exceeded exports. In 2016, the gap fell to 46% or 7.9 billion USD. In December 2016, the head of the Ministry of Agriculture, Alexander Tkachev, said that in the next seven years,

Russia will be able to fully self - sustain agricultural products, apart from tropical fruits. According to the calculations of the Ministry, for this, up to 2020 it is necessary to annually introduce 400 ha of greenhouses and 10 thousand ha of vineyards (in 2016 – 5 thousand ha) and in four years lay 72 thousand ha of gardens (in 2016 - about 15 thousand ha). According to the agency's plans, by 2020 the production of livestock and poultry for slaughter in live weight will increase by 10% to 15 million tons, and the supply of meat abroad will grow to 1 million tons. In the dairy industry, where the raw material deficit is about 7 million tons, for the transition to full self - sufficiency by 2020, it is necessary to build 800 dairy farms.

In 2016, production of agricultural products in Russia increased by 4.8%, the main driver was crop production due to record harvests of grain crops (119.1 million tonnes in weight after completion), soybean (3.1 million tonnes), sugar beet (48, 3 million tons), vegetables (16.3 million tons). According to the forecast of the Ministry of Agriculture, the average annual increase in grain production in Russia in 2017 - 2020 will be 0.5 - 2.8%, sunflower - 2 - 3%, soybean - 9.5 - 9.8%, sugar beet - 2%. On the development of exports until 2020, it is planned to allocate about 2.4 billion RUB, including 728 million RUB in 2017. As a result, in terms of money, it is planned to increase the volume of export to 21.4 billion USD in 2020 and to 30 billion USD - by 2025, but more than 30% of the total will continue to be in grain and flour - and - cereals industry, project of the updated state program for the development of the agro - industrial complex (Vorotnikov I. L.,2016).

4.2 Import of agricultural products

There is an opinion that Russia has firmly established itself on the foreign "food needle" and has practically lost its food independence and food security.

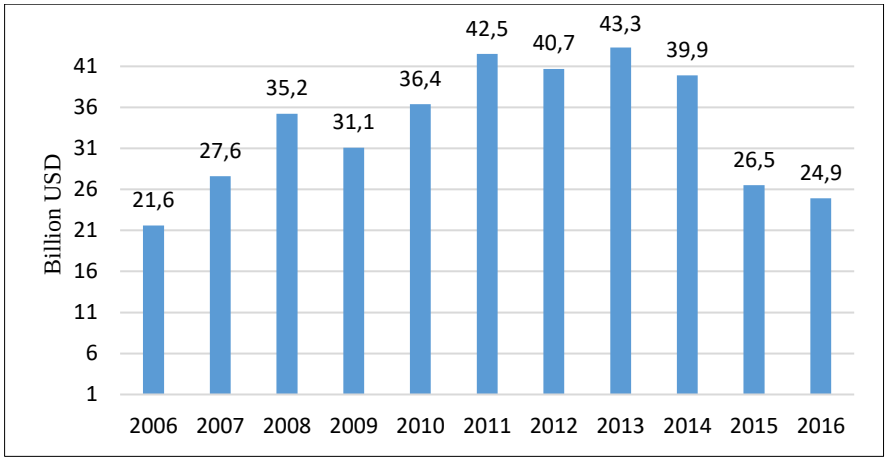
The decline in imports of purchases of agricultural products of raw materials and food began in 2014 after the application of economic sanctions against Russia.

Sanctions actualized the problem and accelerated the process of import substitution in the Russian agro - food market, which allowed domestic agricultural producers to occupy the vacant niche quickly.

This was facilitated by an adequate state agrarian policy expressed in state financial support of the subjects of the country's agro - industrial complex.

Import of food and agricultural products decreased by 6.3%, but still significantly exceeds exports - 24.9 billion USD. In 2015, food and agricultural products imports by 64% or 10.3 billion USD exceeded exports. In 2016, the gap fell to 46% or 7.9 billion USD (Fig. 10).

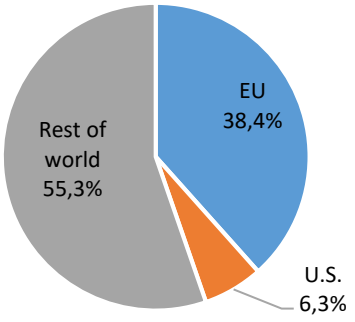
Figure 10 Value of agricultural products import to Russia



Source: Russtat

Fig. 10 shows dynamic of agricultural products import from Russia during 2006 - 2016 period of time. General tendency presents gradual growth in export. The world share of the import in 2015 is shown in Fig. 11.

Figure 11 Russian import of agricultural products in 2015

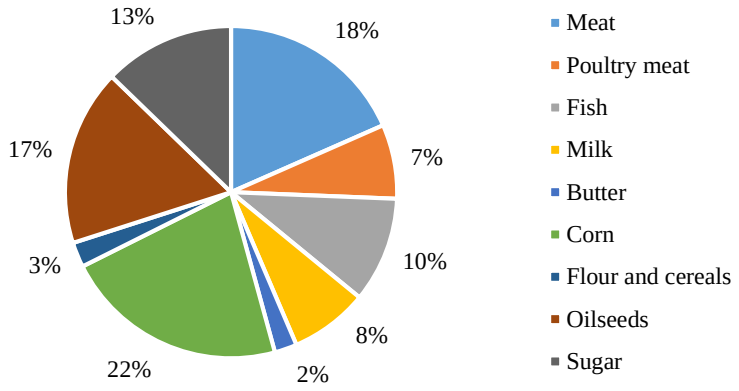


Source: Russtat

Russia has a much stronger economic relationship with Europe than with the United States. Nearly 40% of Russia's imports of goods came from EU member countries, compared to about 6% from the United States.

According statistical data the largest share in the total import to Russia during 2013 year had the corn and oilseeds products with shares in 22% and 17%. Also, large shares had meat, fish and sugar - more than 10% (Fig. 12).

Figure 12 Dynamics of imports of major agricultural products in 2013 year

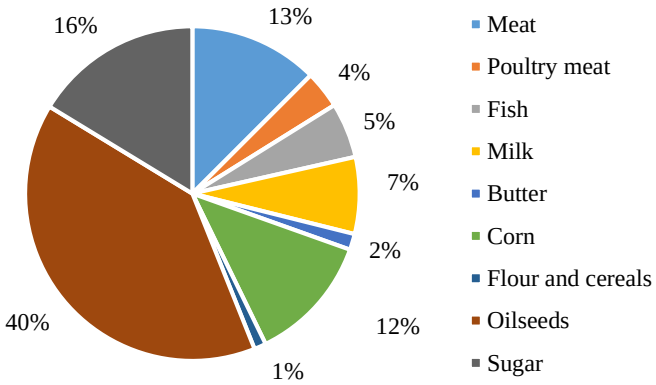


Source: Russtat

Import during 2016 is presented below for comparison reason.

According statistical data the largest share in the total import to Russia during 2016 year had the oilseeds products with share in 40%. Also, large shares had meat, corn and sugar - more than 10% (Fig. 13).

Figure 13 Dynamics of imports of major agricultural products in 2016 year



Source: Russtat

In the total volume of Russian imports for food accounted for 13.7%. Among the main food products, oilseeds showed the greatest growth in 2016, import of which increased by 62% to 2465 thousand tons. The import of sugar also increased by 4% to 1010 thousand tons. Simultaneously, imports of milk decreased by 20% to 460 thousand tons. Also, the volume of import of fish decreased by 57% to 331 thousand tonnes, poultry meat - by 59% to 225 thousand tonnes and meat - by 44%, to 225 thousand tons.

In the segment of fruit and vegetable products, the growth of imports among the main categories showed only bananas - by 10.6% to 1.4 million tons. At the same time, fresh grapes were imported by 24.5% less compared to 2015 (193 thousand tons), supplies Fresh apples fell by 24.1% (677 thousand tons), oranges - by 3.1% (452 thousand tons), mandarins - by 2.5% (759 thousand tons). Decrease in shipments also occurred in the main types of vegetables: almost doubled imports of potatoes and cabbage (up to 285 thousand tons and 98,600 tons), 40% for onions and garlic, 30.9% for tomatoes, 21,8% - cucumbers and gherkins.

4.2.1 Prediction of import

From the import observation in period of 2010-2016 we can see the decrease of amount within the sectoral sanctions period (Tab. 8).

Table 8 Import of agricultural products

Years	2010	2011	2012	2013	2014	2015	2016
Import (in billion USD)	36,4	42,5	40,7	43,3	39,9	26,5	24,9

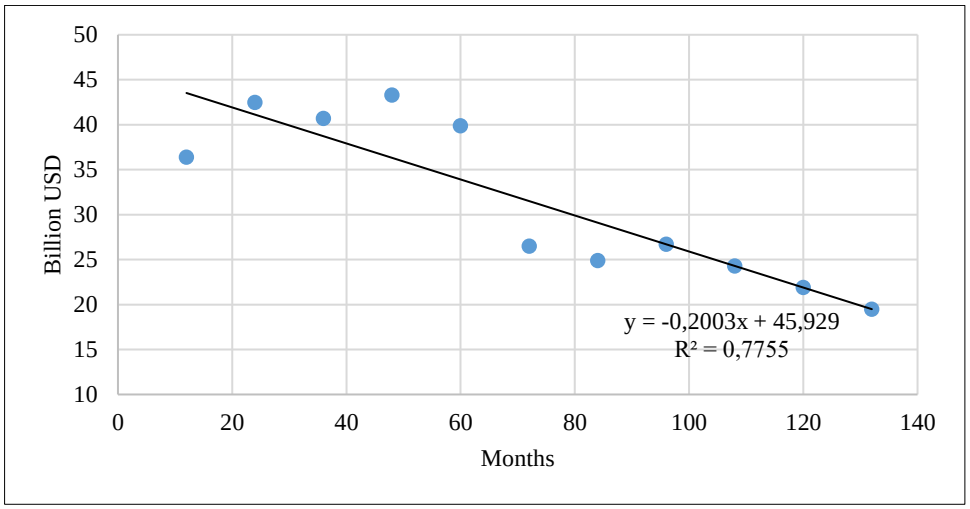
Source: Russtat

The line of trend can be formed based on statistical data. Figure shows prediction of import on the future 4 years. Fot the easier prediction is better to take the months, taking plus 12 months each year.

The equation of the straight line relating Import and Months is estimated as: Import = (45.9) + (-0.2) * Months, using the 11 observations in this dataset. The y-intercept, the estimated value of Import when Months is zero, is 45.9 with a standard error of 2.9. The slope, the estimated change in Import per unit change in Months, is -0.2 with a standard

error of 0.4. The value of R-Squared, the proportion of the variation in Import that can be accounted for by variation in Months, is 0.7. The correlation between Import and Months is -0.8805 (Fig. 14).

Figure 14 Prediction of import on 2017 - 2020 years



Source: own results based on the data from Russtat

According to figure above both coefficient of determination and the linear equation were got. Coefficient of determination (R2) equal 0.7755 and it means that this trend is significant for the future year by 77.55%. It means that this prediction is statistically significant.

Formula 1 Linear equation of import prediction

$$Y = (-0.2)*X + 45.9,$$

where Y is import and X is 12 months. Variable before X equal (-0.2) it means that price of wheat will be decline by 0.2 billion USD within one year.

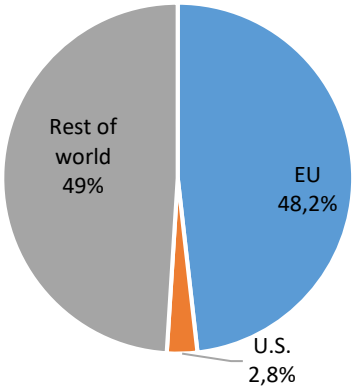
This situation is bad trend for agricultural products and its import from the economic point of view.

But import is only one component of successful economic development. Main value belongs to export. That is why in the next point econometric model of export will be observed and main variables will be defined which influence on this value.

4.3 Export of agricultural products

Russia is one of the world's largest markets for agricultural and food products, being the fifth largest importer after EU, US, China and Japan. In 2013 it imported 8.3% of all beef traded worldwide and accounted for 7.5% of global pork imports, while for other products the share has been lower. From the total Russian export in agrarian sector almost 48% of products go to the EU, 3% - to U.S. and rest of world has 49% (Fig. 15).

Figure 15 Russian export of agricultural products in 2015

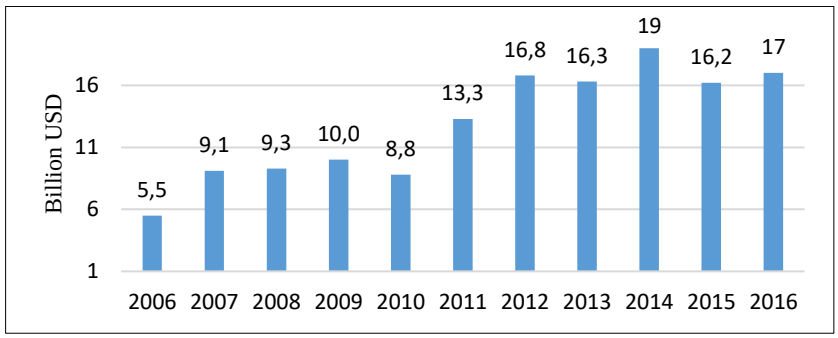


Source: Russtat

For countries whose producers of the affected goods are concentrated in exports to the Russian market, the ban certainly had serious economic implications. For example, 32.4% of the EU's exports of fruits went to Russia in 2013, implying that almost one third of fruits produced for export had to find new outlets, either domestically or in third country markets. The sudden and unexpected nature of the ban meant that agricultural producers and traders were not prepared to cope effectively with these losses.

For Russia the sanctions have served as an impetus for the domestic production development and export increases. As a result of sanctions in 2014 the export has been reduced, but as a result of the state program for import substitution and new contracts with Asian countries, Russia increased agricultural products production and as a result increased export in 2016. This was facilitated by an adequate state agrarian policy expressed in state financial support of the subjects of the country's agro - industrial complex (Fig.16).

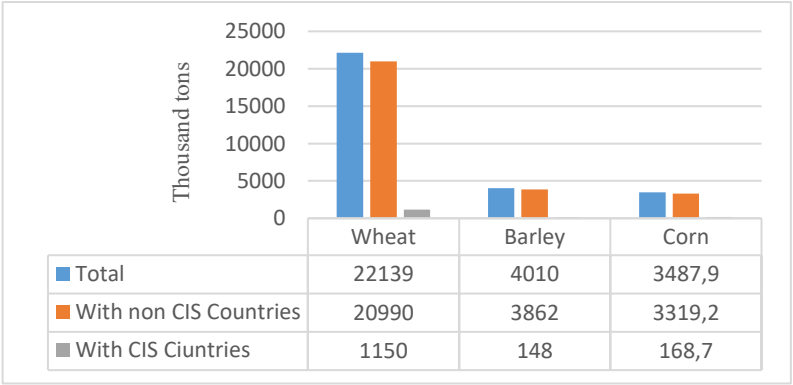
Figure 16 Value of agricultural products export from Russia



Source: Rosstat

In 2016, Russia exported food products and agricultural raw materials for 17.04 billion USD (including trade with the EAPC countries), which is 5.2% higher than in 2015. As reported by the Federal State Statistics Service, in general, food accounted for 6% of the total export structure, third of this amount was made up of cereals, exports of which decreased by 0.8% last year in monetary terms to 5.6 billion USD. At the same time, in physical terms the supply of cereals in 2016 increased by 10.4% to the level of 2015 to 33.9 million tons. In particular, 25.3 million tons of wheat and meslin were exported during the calendar year (an increase of 19.3%), 5.3 million tons of maize (plus 43.9%), 2.9 million tons of barley (a decrease of 46%), 229 thousand tons of rice (an increase of 27.3%). Sunflower exports increased three-fold to 187 thousand tons, while sales of wheat and wheat-rye flour abroad decreased by 10.6% to 237 thousand tons (Federal State Statistics Service) (Fig. 17).

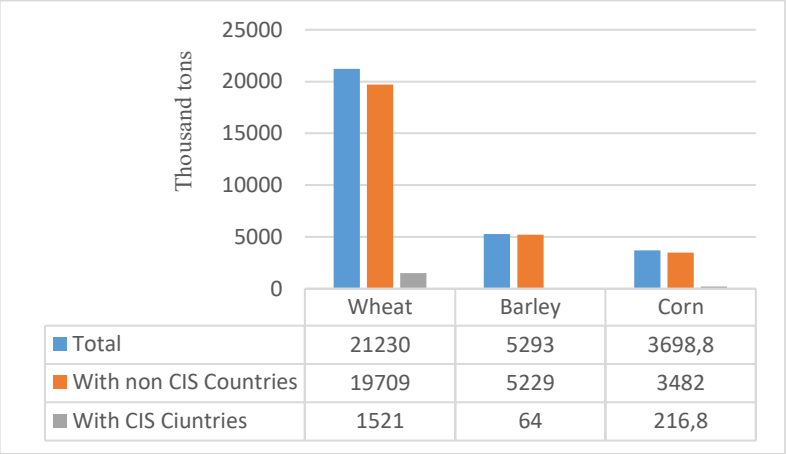
Figure 17 Cereals exports by commodity items and groups of countries in 2014 year



Source: Rosstat

Export of three main cereals from Russia to non CIS countries and CIS countries in 2014 year has been decreased after the sanctions, especially the export to the CIS countries. In 2016 year the situation is better in some of main cereals (Fig. 18).

Figure 18 Cereals exports by commodity items and groups of countries in 2016 year



	Wheat	Barley	Corn
Total	21230	5293	3698,8
With non CIS Countries	19709	5229	3482
With CIS Ciuntries	1521	64	216,8

Source: Rosstat

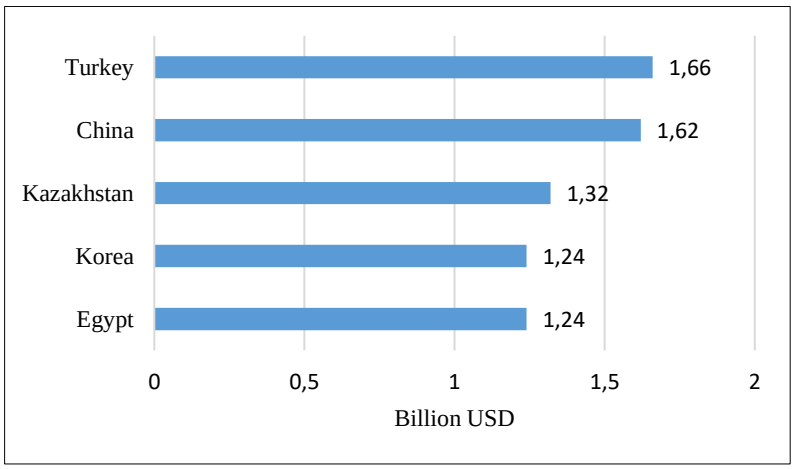
In the last 20 years, agricultural imports have prevailed over exports. But we see the dynamics of the last three years - imports are declining, and exports are growing.

In 2014 exports of Russian agricultural products grew by 14% to 19.1 billion USD. At the end of 2016 exports of food and agricultural goods rose by 4.9% to 17.1 billion USD. Thus, exports of agricultural goods exceeded the arms exports, what amounted to 15.3 billion USD.

In 2016, Russia took the first place in the world for wheat exports (in the agricultural year from July 1, 2015 to June 30, 2016, Russian exports amounted to 24-25 million tons), displacing the United States and Canada, since the early 2000's. Russia's share in the global wheat market has increased, from 4% to 16%.

The largest buyers of Russian grain are Egypt, Turkey and Saudi Arabia. Russia also supplies grain to Brazil, Australia and Singapore (Fig 19).

Figure 19 Five main importers of Russian afrarian products in 2016



Source: exportcenter

In 2014, Ecuador signed an agreement on the purchase of wheat in Russia in order to create an alternative to purchases from Canada. In 2014 Russia increased wheat exports by 60%.

The export of Russian vegetable oil is approximately 25% of the production volume, that is, up to 1 million tons per year.

The export of meat from Russia for 2014 grew by 30% to 85 thousand tons. The export of domestic meat products increased by 87% in the first 7 months of 2016 to 105.2 million USD.

Russia also exports a number of exclusive agricultural products. In addition to the famous Russian caviar for the whole world, a lot of honey is exported. For example, in December 2014 Bashkiria concluded an agreement on large-scale supplies of honey to China - up to 300 tons for a total of 3 billion RUB a year.

4.3.1 Prediction of import

From the export observation in period of 2010-2016 we can see the decrease of amount within the sectoral sanctions period (Tab. 9).

Table 9 Import of agricultural products

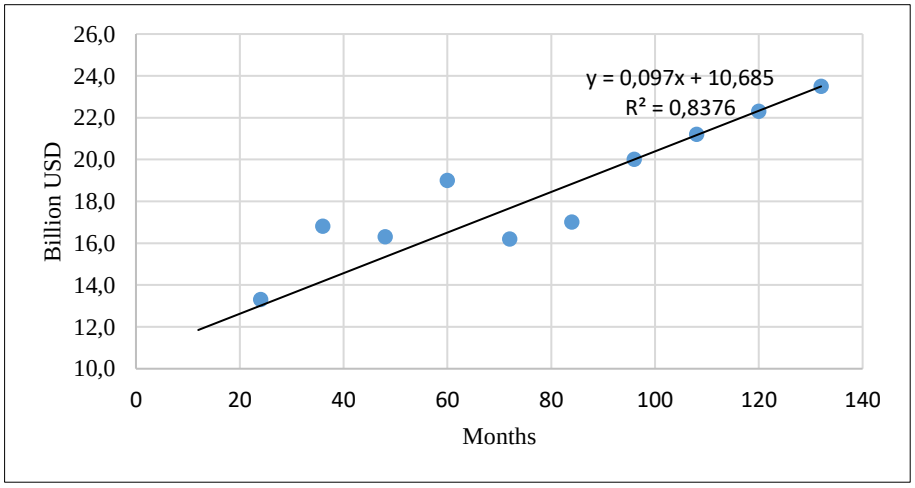
Years	2010	2011	2012	2013	2014	2015	2016
Export (in billion USD)	8.8	13.3	16.8	16.3	19	16.2	17

Source: Russtat

The line of trend can be formed based on statistical data. Figure shows prediction of export on the future 4 years. For the easier prediction is better to take the months, taking plus 12 months each year.

The equation of the straight line relating Export and Months is estimated as: Export = (10.7) + (0.1) * Months using the 11 observations in this dataset. The y-intercept, the estimated value of Export when Months is zero, is 10.6 with a standard error of 1.2. The slope, the estimated change in Export per unit change in Months, is 0.1 with a standard error of 0.01. The value of R-Squared, the proportion of the variation in Export that can be accounted for by variation in Months, is 0.8. The correlation between Export and Months is 0.9152.

Figure 20 Prediction of export on 2017 - 2020 years



Source: own results based on the data from Russtat

According to figure above coefficient of determination and linear equation were got. Coefficient of determination (R2) equal 0.8376 and it means that this trend is significant for the future year by 83.76%. It means that this prediction is statistically significant.

Formula 2 Linear equation of export prediction

$$Y = 0.1*X + 10.7,$$

where Y is import and X is 12 months. Variable before X equal 0.1 it means that price of wheat will be raised by 0.1 billion USD within one year.

This situation is good trend for agricultural products and its export from the economic point of view.

4.4 Foreign Trade Turnover and GDP

The country's FTT is the sum of the value of goods exported by a country or group of countries and the value of goods imported by them over a certain period, for example, for a year, quarter, or month. The FTT includes paid and executed on credit commodity transactions.

According to the Bank of Russia since 2014, this indicator has declined. Since the introduction of sectoral sanctions reduced the volume of imports and exports, we can conclude that the reduction in the volume of FTT was largely caused by sanctions. The Bank of Russia explains this by shrinking the trade surplus under the influence of low commodity prices of Russian exports and a noticeable trend in the recovery of imports.

The value of Russian exports demonstrated a "pronounced negative dynamics", which is due to the decline in average export prices for crude oil, petroleum products, natural gas, mineral fertilizers, ferrous and non - ferrous metals (aluminum, copper, nickel).

The following approach is proposed as a methodology for assessing damage from sanctions.

1) Checking the statistical dependence of GDP on the foreign trade turnover. Dependence is revealed in relation to the annual GDP and foreign trade turnover. For verification, the graphical method is used, and the correlation coefficient is calculated.

2) In the presence of a significant statistical dependence, a regression model is constructed that describes this dependence. The dependent variable is the value of annual GDP, the external variable is the value of the annual foreign trade turnover.

3) Exogenous variables are predicted. The value of the annual foreign trade turnover is a set based on: a) the actual situation, i.e. actual data on the foreign trade turnover and other exogenous variables are used; b) a hypothetical situation, as if no sanctions had been introduced. In this case, the forecast value can be obtained as the product of the last value for the year by the average increase in the indicator over the past few years.

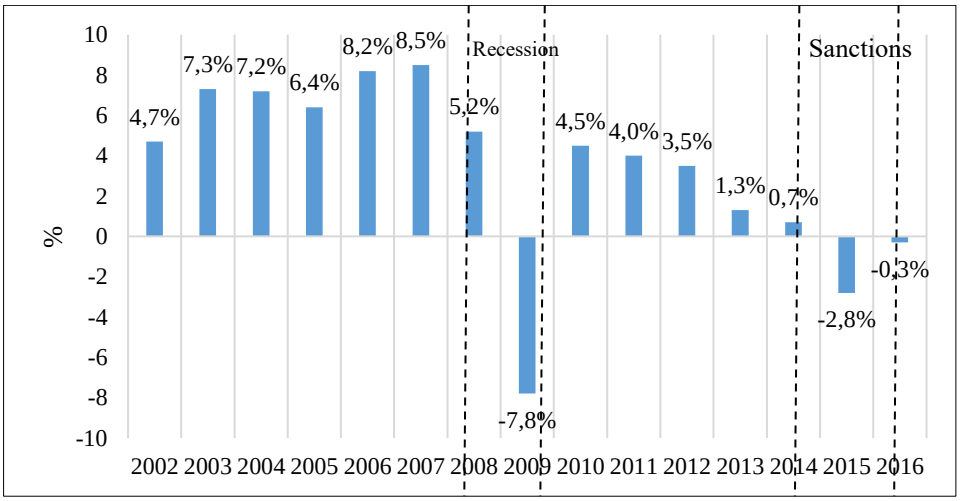
4) Annual GDP is forecasted for actual and hypothetical situations. The difference between the values is the amount of damage from sanctions.

The results of a step - by - step implementation of the methodology are reflected below.

Step 1.

After the financial crisis of 1998, Russia's GDP began to grow steadily, largely due to the favorable conjuncture of international commodity markets. Since 1991, the time of the collapse of the USSR, Russia's GDP by PPP by 2014 grew by 197% (Fig. 21).

Figure 21 Russian's GDP growth (annual % change)



Source: CNBS

According to the World Bank, in terms of GDP (in terms of purchasing power parity) for 2016, Russia took the 6th place in the world (3,397 billion USD). In terms of GDP (in nominal terms) - 12 th place in the world (1,281 billion USD) (Tab. 10).

Table 10 GDP

Years	2010	2011	2012	2013	2014	2015	2016
GDP (in billion USD)	1524.91	2031.76	2170.14	2230.62	2063.66	1365.86	1283.16

Source: World Development Indicators

Despite the obvious decrease in the GDP rate from the introduction of sanctions by Western countries, it is worth noting that the largest growth in 2016 was recorded in agriculture (+ 3.5%), in financial activities (+ 2.3%), in the production and distribution of electricity, gas and water (2.4%).

The analysis of another indicator - the volume of the foreign trade turnover in agrarian sector - showed not a better picture (for research purposes) (Tab. 11).

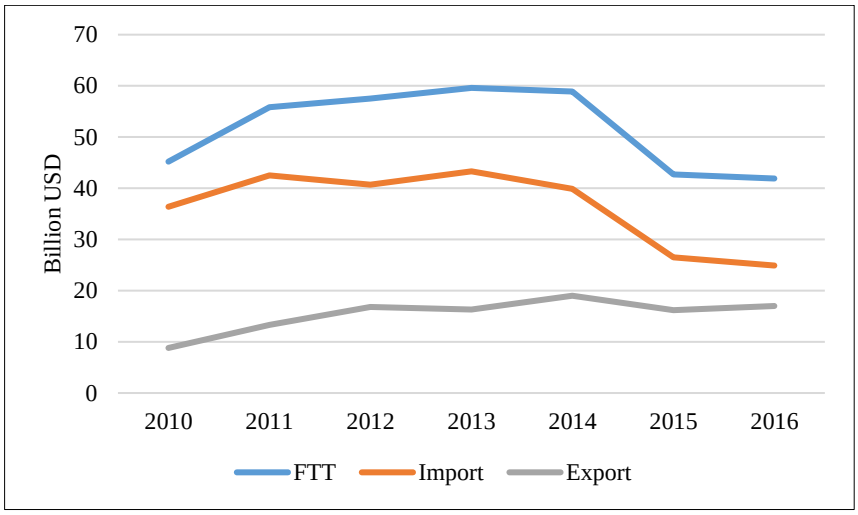
Table 11 Trade Balance, Import and Export (in billion USD)

Years	FTT	Import	Export
2010	45.2	36.4	8.8
2011	55.8	42.5	13.3
2012	57.5	40.7	16.8
2013	59.6	43.3	16.3
2014	58.9	39.9	19.0
2015	42.7	26.5	16.2
2016	41.9	24.9	17.0

Source: World Development Indicators

Graphic analysis of the rows of annual indicators of import, export and foreign trade turnover, cleared of the seasonal component, clearly shows the period of sharp decline (Fig. 22).

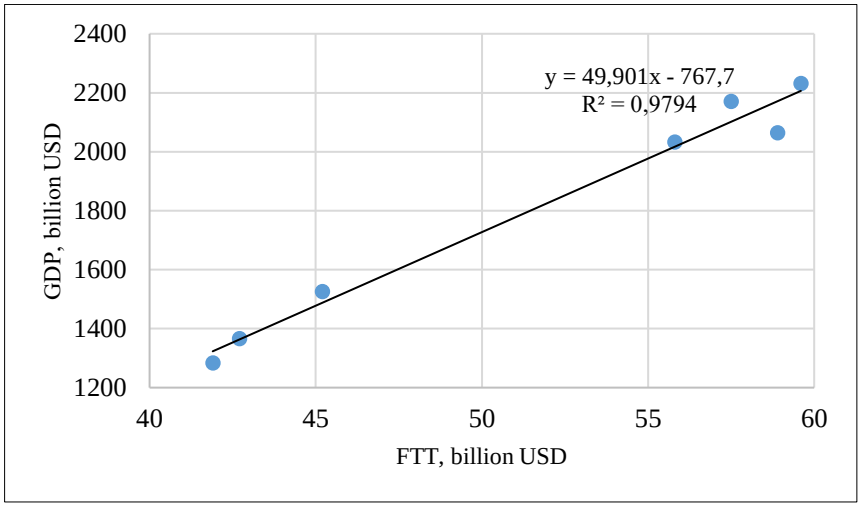
Figure 22 Foreign trade balance, Imports and Exports



Sources: Rosstat, Bank of Russia

Based on statistical data from official sources it is possible to make a graphical analysis of linear regression between GDP and FTT (Fig. 23).

Figure 23 Determination and linear equation of GDP and FTT



Source: own results based on the data from World Development Indicators

The equation of the straight line relating GDP and FTT is estimated as: GDP = (-767.7) + (49.9) * FTT using the 7 observations in this dataset. The y-intercept, the estimated

value of GDP when FTT is zero, is -767.7 with a standard error of 168.8. The slope, the estimated change in GDP per unit change in FTT, is 49.9 with a standard error of 3.2 The value of R-Squared, the proportion of the variation in GDP that can be accounted for by variation in FTT, is 0.9794. The correlation between GDP and FTT is 0.9897.

The correlation coefficient is 0.97, which also indicates a strong linear relationship between the samples and it means that this trend is significant for the future year by 97.9%.

According to the Federal Customs Service, Russia's foreign trade turnover for 2016 amounted to 42 billion USD. This is less than in 2013 by 35%.

The devaluation of the ruble played a decisive role in reducing the figures, which followed the strongest fall in oil prices in early 2016. In January, quotes for Brent crude oil fell below 30 USD per barrel due to excess supply in the market, as well as a reduction in demand from China.

The rate of the dollar to the ruble at the same time skyrocketed to 78 RUB. This coincided with a seasonal decline in business activity in January, which is observed in Russia annually, as well as with a reduction in production in many manufacturing industries. As a result, January volumes of trade became record low - exports fell by one third, and imports - by 20%.

Therefore, based on the analysis, we can conclude that the indicator of foreign trade turnover has a big impact on the country's GDP. The relationship between these indicators is manifested in the fact that the increase or decrease in imports / exponent is affected by the change in the country's GDP.

Step 2.

Because of the regression analysis (using the IBM SPSS statistical package), the following regression equation was obtained.

Formula 3 Linear equation of GDP

$$Y=49.9*x+(-767.7)$$

where Y is GDP and X is amount of FTT per year.

Variable before X equal 49.9 it means that total amount of GDP will be increased by 49.9 billion USD together with the trade balance. This is positive trend for GDP from the economic point of view.

Growing trade balance is only one component of GDP. Many factors influence on it such as is the sum of consumption, investment, government spending and others. It makes sense to assume how these indicators will change over time, for example, we can calculate the GDP and the FTT until the year 2020.

Step 3.

For the construction of annual GDP forecasts by 2020 using the NCSS forecast function, in accordance with the regression equation constructed, it is necessary to know the values of the FTT in the previous period. The actual trade balance is given by Rosstat. Based on the forecast of external turnover, it is possible to forecast the GDP level until 2020. Hypothetical values of external turnover are calculated based on the average growth in debt for the period from 2010 to 2016. The results of the calculations are given in Tab. 12.

Table 12 Actual and hypothetical values of model variables in 2010−2020 (in billion USD)

	"Actual" values (with sanctions)		"Hypothetical" values (without sanctions)	
Period/ indicator	GDP	FTT	GDP	FTT
2010	1524.9	45.2	1524.9	45.2
2011	2031.7	55.8	2031.7	55.8
2012	2170.1	57.5	2170.1	57.5
2013	2230.6	59.6	2230.6	59.6
2014	2063.6	58.9	*2549.6*	*65.8*
2015	1365.8	42.7	*2773.7*	*70.2*
2016	1283.1	41.9	*2997.7*	*74.7*
2017	*1562.5*	*46.7*	*3221.8*	*79.2*
2018	*1500.7*	*45.5*	*3445.9*	*83.7*
2019	*1438.8*	*44.2*	*3670.0*	*88.2*
2020	*1377.0*	*43.0*	*3894.0*	*92.7*

Source: own results based on the data from NCSS program

It can be seen from the table that the "actual" and "hypothetical" values of GDP differ significantly, including in 2014, when sanctions were already introduced.

According to the forecast, in 2017, Russia's GDP will grow in average by 4 per year. In other words, surveyed economists tend to believe that the Russian economy does not yet show signs that it will be able to overtake the world in terms of growth. The latter, according to the current forecast of the IMF, will grow by 3.5% in 2017 and 3.6% in 2018. This means that the Russian economy threatens with a classic trap of the world, which does not allow to overcome the backlog of the "top division" of the world economy: low growth rates in absolute terms.

For a more accurate picture, it is worth calculating the dynamics indicators. To calculate the dynamics indicators on a constant basis, each level of the series is compared to the same basic level. Calculated in this case indicators are called basic.

To calculate the dynamics of the variable base, each subsequent level of the series is compared with the previous one. The dynamics calculated in this way are called chain dynamics. The most important statistical indicator of dynamics is the absolute increase, which is determined in the difference comparison of two levels of a series of dynamics in units of measurement of the initial information.

Table 13 Chain indicators of dynamics

Period	GDP (in billion USD)	Absolute increase	Increase rate (in percentage)	Growth rates (in percentage)
2010	1524.916	–	–	100
2011	2031.768	506.852	33.24	133.24
2012	2170.143	138.375	6.81	106.81
2013	2230.625	60.482	2.79	102.79
2014	2063.662	-166.963	-7.49	92.51
2015	1365.865	-697.797	-33.81	66.19
2016	1283.162	-82.703	-6.05	93.95

Source: own results based on the data from Rosstat

In 2016, compared to 2015, the GDP decreased by 82.703 billion USD or by 6.1%. The maximum increase is observed in 2011 (506.852 billion USD). The minimal increase was fixed in 2015 (-697.797 billion USD). The increase rate shows that the tendency of the series is decreasing, which indicates a slowdown in GDP.

Calculation of the average characteristics of the series.

The average level of the series y of dynamics characterizes the typical magnitude of absolute levels.

Formula 4 Average level of the interval series

$$y = \frac{\Sigma y_i}{n};\ \ y = \frac{12670.141}{7} = 1810.02$$

The average value of GDP from 2010 to 2016 was 1810.02 billion USD.

Formula 5 Average growth rate

$$T_p = \sqrt[n-1]{\frac{y_n}{y_1}};\ \ T_p = \sqrt[6]{\frac{1283.162}{1524.916}} = 0.9716$$

On average for the entire period, the growth of the analyzed indicator was 0.9716.

Formula 6 Average increase rate

$$T_{np} = T_p - 1;\ \ T_{np} = 0.9716 - 1 = -0.0284$$

On average, GDP fell by 2.8% annually.

The average absolute increase is a generalized characteristic of the individual absolute increments of a number of dynamics.

Formula 7 Average absolute increase

$$dy = \frac{y_n - y_1}{n-1};\ \ dy = \frac{1283.162 - 1524.916}{6} = -40.29$$

With each year GDP on average decreased by 40.29 billion USD.

Step 4.

Based on the data given in the table, the "actual" GDP in 2014 was 2063.6 billion USD, and the "hypothetical" value was 2549.6 billion USD. Thus, the damage from sectoral sanctions in the first year amounted to 486 billion USD. Note that over time the amount of damage increases. In 2018, it will be, according to calculations, 1500.7 million USD. This is explained by the growing impact of sanctions: the more time passes from their introduction, the more the lack of import / export affects the country's foreign trade balance. In addition, the dollar has a significant impact on the result. And its growth, in many respects, is also caused by sanctions, as the loss of access to Western capital markets substantially accelerated the devaluation of the ruble.

Finally, the price of sanctions for the economy naturally increases as it plunges into a recession. For a weakened economy, even a small negative becomes a serious problem.

Calculate the proportion of damage in GDP. For the first year after the imposition of sanctions, GDP will be 4,294.28 billion USD. Damage = 486 / 4294.28x100% = 11.3%. Thus, the damage amounted to 11.3% of GDP in the first year after the introduction of sanctions.

Thus, according to the economic forecast based on real data, indicators of GDP growth and foreign trade turnover can be the following.

Table 14 Actual and hypothetical values of model variables

Indicator / period	2017	2018	2019	2020
"Actual" values (with sanctions)				
GDP, growth in %	1.4	1.8	1.5	1.6
External turnover, growth in %	2.7	2.0	1.8	2.2
"Hypothetical" values (without sanctions)				
GDP, growth in %	2.0	1.7	2.5	3.1
External turnover, growth in %	2.0	2.3	2.6	3.1

Source: World Bank Group Flagship Report

The fall in oil prices and economic sanctions led to a slowdown in the economic growth of Russia's GDP. Losses of the Russian economy in recent years have amounted to

200 billion USD, of which 40 - 50 billion USD was imposed on the sanctions imposed by the West. The remaining losses were caused by the fall in oil prices, which led to a fall in the ruble exchange rate.

Table 15 Comparative analysis of the fall in oil prices and the growth of the dollar

Price	2008		2016	
	Absolute value	In %	Absolute value	In %
Oil in USD	From 139 to 45	68	From 112 to 53	53
The dollar in RUB	From 23.4 to 35.9	53	From 34 to 64.3	104

Source: World Bank Group Flagship Report

According to World Bank statistics, Russia's GDP growth in 2014 has become negative. If in 2013, Russia's GDP was 2230.62 billion USD, then in 2014 - 2063.66 billion more. The economic recession could not be overcome even in 2015. This allowed some American political scientists to draw a conclusion about the success of economic sanctions against Russia. "There is good evidence," wrote Kathryn Stoner - Weiss in December 2015, "that sanctions work. The Russian economy is in recession, and the budget deficit in 2016 is projected to be somewhere around 3%" (Sukiasyan A. A., 2017).

However, how deep will the influence of economic sanctions on the Russian economy be? Will it be short, medium or long term? If earlier economic sanctions seemed a short - term phenomenon, then in 2015 changed the view of leading politicians. In a message to the Federal Assembly in 2015, Russian President Vladimir V. Putin, without any apparent optimism, stated that "both the period of low commodity prices, and, perhaps, external restrictions, can drag on and drag on for a long time. Without changing anything, we simply will spend our reserves, and the growth rates of the economy will fluctuate somewhere at the zero mark." But are economic sanctions only harming or can they become an impetus for profound structural changes? While it's too early to talk about it seriously, time will tell.

4.5 Scenarios for the development of the Russian agro - industrial complex

Global trends that are interdisciplinary and interdisciplinary in nature, combined with national characteristics, form the outlines of the future appearance of the Russian agribusiness. The key parameters of the probable future state of the agroindustrial complex are determined by the system of basic preconditions for the development of the sector in the long term.

Scenario conditions should consider the priorities, goals and objectives of the sector's development: the main goal of the scientific and technological development of the Russian agro - industry will be to ensure the competitiveness of Russian products in the external and internal markets, primarily through the creation, dissemination and application of the latest achievements in science and technology (msx.ru).

The implementation of this goal is designed to ensure the transition to high - performance, high - tech, resource - efficient, climate - adaptive production of agricultural raw materials and products of high processing depth.

Increasing the competitiveness of the agro - industrial complex will contribute to solving the following main tasks:

- the output of domestic producers for promising food markets;
- significant reduction in imports of finished food products;
- ensuring food security;
- creation of new high - performance jobs at enterprises of the agro - industrial complex, employment growth and living standards of the population;
- increase the investment attractiveness of the agricultural sector;
- saving of the country's currency reserves and growth of the economy.

Achieving this goal will require implementation of a set of measures related to the development of the institutional environment, the modernization of the infrastructure, the improvement of the investment climate, as well as the development of science, innovation and the training system.

Realization of development goals of the agroindustrial complex should be carried out in the conditions of ensuring a balance of interests of business, the state and the population. The target state of the agroindustrial complex by 2030 can be characterized by the following parameters:

- increases in the share of the main agricultural products in the relevant world markets;
- increases in the share of domestic products in the total volume of resources of retail food products;
- increases in the share of domestic products in the main markets of the means of production;
- increases in the share of innovative products in the total output of agricultural products;
- increased technological level of production and labor productivity;
- decreases in unemployment among the rural population.

At the same time, the most promising areas of scientific and technological development of the agro - industrial complex, connected with the formation of new high - tech markets, can be the following:

- "smart agriculture" based on new technical solutions;
- functional food products;
- new varieties, hybrids, breeds;
- balanced feed for highly productive livestock;
- highly effective and safe active ingredients for vaccines, antibiotics, antiviral drugs for livestock and plant protection products;
- systems of food biotechnologies.

The development of the Russian agro - industrial complex will provide significant changes in the social and economic sphere, will positively affect the stability of economic growth, ensuring the economic security of the country, increasing the employment level and the quality of life.

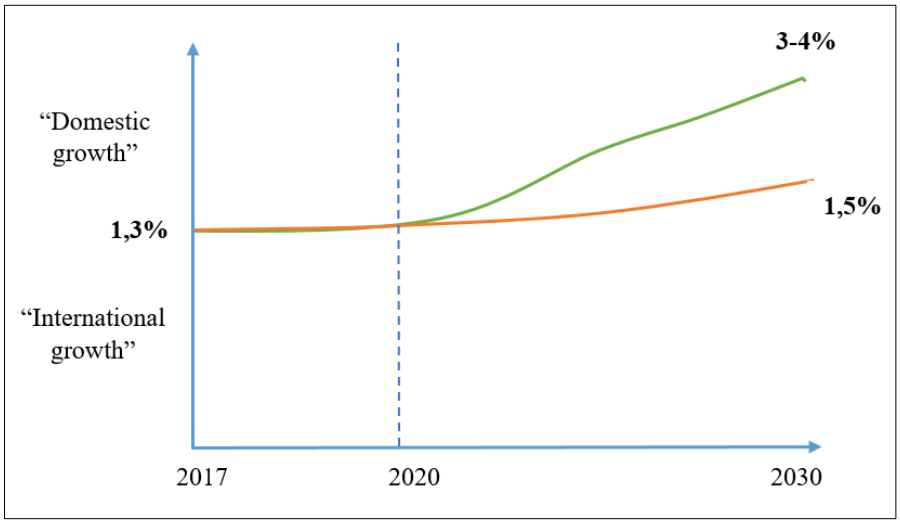
The implementation of priorities, goals and objectives of development, key requirements to the development directions of the country's agro-industrial complex is possible within the framework of two scenarios of scientific and technological development of the agrarian and industrial complex of the Russia:

- "Domestic growth";
- "International growth".

Both scenarios for the development of the agrarian and industrial complex of the Russian Federation mean a variety of models and directions of scientific and technological

development and forms of state support. In 2017 - 2020, the institutional conditions necessary for the implementation of the scenarios should be formed, which will later be defined as the location of the agro - industrial complex in the Russian economy and the location of Russian products in global markets (Fig. 24).

Figure 24 Dynamics of the Russian agroindustrial complex depending on the implementation of a scenario



Source: HSE estimates, using the data from FAO and WTO

After 2020, the trajectory divergence is expected. The scenario "Domestic growth" assumes achievement of stable growth of sector in the country. In the scenario of "International Growth" it is also possible to enter new markets for Russian agribusiness. The implementation of this or that scenario will lead to different development of the economy.

At the end of 2015, the world production of agricultural products reached 6,150 billion USD, the world export of agricultural products - 1,250 billion USD. At the same time, the output of agricultural products in Russia amounted to about 80 billion USD, and the volume of exports of such products was 16.2 billion USD. Thus, the share of Russia is about 1.3%. Presumably, the volume of production of agricultural products in the world in 2016 - 2030. will increase by about 3% per year and reach 9,300 billion USD by 2030. With the implementation of the first scenario, Russia's share in global production by 2030 could reach 1.5% (about 140 billion USD), and with the second -3.5% (about 325 billion USD) (fedstat.ru).

The main instruments of scientific and technological development of the agro - industrial complex of Russia in the scenario "Domestic growth" will be the gradual revival of the economy, import substitution and the further development of traditional export niches. The prerequisites for the "Domestic growth" scenario are presented below (Tab. 16).

Table 16 The prerequisites for the "Domestic growth" scenario

	2016	2020	2025	2030
GDP (in billion RUB)	80804	108050	150529	200023
Retail turnover (in billion RUB)	27538	37283	49673	67238
Investments (in billion RUB)	14556	20039	30463	37655

Source: Bank of Russia

The main condition for the implementation of the "International growth" scenario will be to accelerate the growth of the Russian economy by increasing government investment spending. This scenario assumes a softening of monetary policy in the next two years, as well as additional financial investments aimed at developing scientific activities, supporting the export of agricultural products and stimulating consumer demand for domestic goods. The prerequisites for the "International growth" scenario are presented below (Tab. 17).

Table 17 The prerequisites for the "International growth" scenario

	2016	2020	2025	2030
GDP (in billion RUB)	80804	120618	178527	257090
Retail turnover (in billion RUB)	27538	39278	54538	79957
Investments (in billion RUB)	14556	25957	44431	60574

Source: Bank of Russia

The "Domestic Growth" Scenario

In the first scenario, the main task of the state will be to ensure food and biosafety while maintaining social stability. Products that will be produced in Russia should be

competitive at least in the domestic market. Development should receive projects for the development of deep processing. The main characteristics of the scenario:

- maintaining inequalities in access to the Russian land for domestic and foreign users;
- development of logistics business;
- localization of foreign technologies;
- intensive state support;
- stimulation of foreign investment in the modernization of the agro−industrial complex.

The specified directions of scientific and technological development will become the main for effective import substitution of biomaterial, technologies and technical means necessary for the implementation of several priority projects for the development of the agro - industrial complex.

The "International Growth" Scenario

The second scenario presupposes an orientation towards integration into the world system and an increase in the export of products with high added value. To implement this scenario, large - scale investments in advanced technologies will be required. All internal standards must comply with international standards. It is necessary to emphasize the development of new markets. At the same time, the role of foreign capital will constantly grow, especially in science, where local investments used to prevail.

The main characteristics of the scenario:

- improvement of market mechanisms of land use;
- creation of new large holdings with a wide geography of presence, including direct foreign participation;
- creation of powerful scientific and educational complexes;
- technologies for deep and complex processing of food waste;
- the scientific centers of the Russian agro - industrial complex in international projects.

Intensive growth in food and increased consumption of agricultural products as a result of increased population and income by 2050, both global production of agricultural products should grow by 60 - 70% compared with 2000 years.

At the same time, the average annual growth in agricultural productivity will decline if there is no active introduction of radical technological innovations. Therefore, there is a long-term risk of exceeding growth rates over the rate of supply growth.

According to the forecast of the Ministry of Agriculture, the export of agricultural products from Russia in 2017 will increase to 18 billion USD (in 2016 - 17 billion USD). This indicator has been increasing since 1999, when only 1 billion USD worth of agricultural goods was supplied abroad. And over the last five years, exports increased by a quarter, mainly due to confectionery, meat, vegetable oil and sugar. Now it is about 6% of the total exports from Russia.

Russia is approaching the stage when it becomes impossible to ensure the expansion of production, focusing only on the domestic market. Export of products is the main direction, which in the future will determine the growth of the agro - industrial complex.

In December 2016, the government announced the adoption of a priority project for the development of exports to 2020. The aim of this project is to create an industry system for supporting and promoting the export of agricultural products, as well as ensuring its compliance with the requirements of the buyer countries. The result of the program should be an almost twofold increase in exports of agricultural and food products from Russia. By 2020, the country will have to export agri-products by 21.4 billion USD, and in five years - by 30 billion USD (mcx.ru).

The reason why this plan will not be fully realized is the high competition in the international markets for food (meat and milk). For example, in the Chinese market there are already goods from the US and the EU and Brazil, which can compete with Russia on the cost of production.

The main prospects for increasing exports are from grain, butter, ready - to - eat food producers and, to a lesser extent, fish, meat, and oilseeds.

5 Results and Discussion

Russia is a leader country in the world agro-industrial complex, despite external restrictions in the form of sectoral sanctions from Western countries. The theoretical and practical parts of this master's work showed this aspect from different points. The main indicators of the country's success in various sectors are imports and exports and, in the Russian agricultural complex, they show large figures and statistics. First of all, the total volume of foreign trade turnover was determined according to the indicators of Russian statistics.

In 2016, the volume of exports amounted to 281.8 billion USD, which is 85.7% less than in 2013, the volume of imports also decreased by 78.3% in 3 years. This decline is explained by the economic sanctions adopted against Russia, which include a ban on the export of products from the country.

Products of the agrarian sector take a big share in the total volume of world trade. In 2016, exports of products amounted to 17 billion USD or 6% of the total volume, which is 11% less than in 2014, but 6% more than in 2015.

The reason for this increase in exports over the past year is the state program on import substitution and increase in domestic production.

As for imports, Russia in 2014 introduced a food embargo against the countries that support anti - Russian sanctions. Import of food and agricultural products fell by 6.3%, but still significantly exceeds exports - 24.9 billion USD. By the end of 2015, imports of food and agricultural products exceeded exports by 64% or 10.3 billion USD. In 2016, this gap was reduced to 46% or 7.9 billion USD.

Import in 2016 amounted to 24.9 billion USD, which is 37.5% below the 2015 indicator. Consequently, there is a tendency to increase imports. Most likely this is due to the increase in trade relations with the Asian countries. For example, during summer months in 2016, Russia has concluded with China more than 30 different agreements for the supply of food products.

Supplies of food increased in value terms by 7.7%, and in physical terms by 12.8%. Records in agriculture allowed Russia to increase exports of cereals, potatoes, meat and other types of products. In addition to traditional buyers, supplies to the countries of the Middle East, Asia, and China and even the countries of Latin America increased.

Rise of Russian export relates to the number of factors: devaluation of ruble, strengthening of dollar, low tariffs for transportations and unfavorable weather conditions for a harvest in other producing countries.

The first step it is considering of Russian agricultural products export per year in billion USD. For comparison were taken data during 2010 - 2016 period. It is available to defect that amounts were changed by 93.18% for 6 - 7 years. 8.8 billion USD was the total amount of export in 2010 and the last agricultural year shows the number in 17 billion USD. Such rapid increase in amount is explained by increasing of prices and acquisition of new importers from Asian countries.

Line of trend was built based on amounts which are mentioned above. And this prediction reveals that average amount of export will be 21.75 billion USD within one year. This is trend is optimal for Russia because the total export is increasing and with growth of agrarian products export will increase revenue from selling.

During last years the export of agricultural products are increasing. It is connecting also with the depreciation of ruble. It shows a good trends and perspectives.

Further results of import analysis will be observed and described.

Agricultural products import to Russia in beginning of 2016 constituted 24.9 billion USD. In relation to beginning of 2015 deliveries were reduced by 6.4% or for 6.5 thousand tons. In relation to the same period of 2014 export was reduced by 43.4% or for 1.6 billion USD. According to these data it is feasible to notice that trend of rapidly increasing of import is changed and has tendency to decline.

The total amount of Russian agricultural products was monitored. In 2010 import was 36.4 billion USD and in 2016 was 24.9 billion USD. It is possible to recognize that the amount of import decreased by 31.59% in comparison to the 2010-2016 period. But fluctuations of these amounts are in limits of 10 billion USD. Only in 2015 - 2016 import demonstrated the lowest indicator in 25 - 26 billion USD. Such a sharp decline directly related to the introduction of anti - Russian sanctions. But trends analysis for coming years shows that this indicator can be improved. A line of trend was formed based on amounts which are mentioned above. This prediction shows that average import will be 23.1 billion USD within one year.

Another indicator that should be checked is GDP. In 2013 GDP was 2230.6 billion USD then, after the sanctions from both sides, the GDP is decreased by 42.86% from 2230.6

billion USD in 2013 to 1283.2 billion USD in 2016. One of the reasons for this decline is the change in foreign trade turnover, which directly affects on the GDP index. This decline is due to higher oil prices and the introduction of Western sanctions.

Based on the close ties between GDP and FTT, the trend line was built based on amounts above mentioned. This prediction reveals the average amount of GDP will be 1469.75 billion USD within one year. This is trend is negative for the Russian economy because this amount is lower than it was before 2014 and, without increase of export, it is difficult to increase GDP.

In comparison to the first two indicators with financial points of view, export is the indicator, which has to be improved in the first place, but not only in terms of indicators, but also in quality of development current tendency. After attentive valuation of these two indicators from an economic point of view it is meaningful to define methods of their development in the future. For this purpose, economic scenarios were created.

The main characteristics of the "Domestic Growth" scenario:

- maintaining inequalities in access to the Russian land for domestic and foreign users;
- development of logistics business;
- localization of foreign technologies;
- intensive state support;
- stimulation of foreign investment in the modernization of the agro−industrial complex.

The specified directions of scientific and technological development will become the main for effective import substitution of biomaterial, technologies and technical means necessary for the implementation of several priority projects for the development of the agro - industrial complex.

To increase exports, the following measures, taken from the "International Growth" scenario, have to be considered:

- improvement of market mechanisms of land use;
- creation of new large holdings with a wide geography of presence, including direct foreign participation;
- creation of powerful scientific and educational complexes;
- technologies for deep and complex processing of food waste;

– scientific centers of the Russian agro - industrial complex in international projects.

Intensive growth in food and increased consumption of agricultural products as a result of increased population and income by 2050, both global production of agricultural products should grow by 60 - 70% compared with 2000 years.

According to the undeniable need to increase exports, the second scenario should be taken into account. Its success can be facilitated by the reorientation of the Russian export policy towards Asia and the increase in domestic production.

6 Conclusion

It is obvious that the damage from the Western sanctions for Russia is very significant. Russia, suddenly began to revive something already happening in the past during the Iron Curtain, with the only difference that this time the Curtain is imposed from the outside. At the same time, domestic politicians and experts state that the pressure of the world community on the country is senseless and that affects more the general business and the ordinary people than the political interests.

Only time will tell what will be the consequences of the sanctions from the world community against Russia. The state manages to cope with most of their impact and domestic manufacturers are actively exploring free niches and increasing the overall production.

The Russian economy is deeply integrated with the world and seriously depends on it. So, we have to negotiate and search the way out of the existing problems. In general, however, the economic development of Russia at the present stage shows that the economy has strengthened, even in conditions of external isolation and pressure. The primary development of agriculture and the entire agro-industrial complex of the country had a decisive impact on the reduction in the volume of purchased products, raw materials and food imports. Import substitution for the food market became the most important direction of the state agrarian policy in the conditions of modern geopolitical and geo-economic transformations.

Increasing the volumes of own production, reaching the threshold indicators of food security contributes to the development and the increase of export potential in the agro-industrial complex.

As defined in the "Export of Agricultural Products" Passport, the implementation of this priority project will require the following tasks:

- informing companies about export opportunities;
- development of competencies in the field of export;
- development of projects of export cooperatives for their sale;
- creation of the Center for the analysis of the export of agricultural products.

It is necessary to develop and implement the formation of a program for the export of agricultural products.

It should be noted that in the State and industrial programs, agriculture and foodstuffs for 2013-2020 became a subprogram on state support for the export of agricultural products and products of its processing.

Currently, a draft federal law "On Export Support in the Russian Federation" is being developed.

The bill proposes to establish a three-level export support management system:

1. The branch federal executive body in the field of agriculture - the Ministry of Agriculture of Russia;

2. Coordinating federal executive body;

3. Governmental Commission for Export Support.

Russia continues to reduce volumes of imports of agricultural products, but there are still certain types of products where the country lags behind in production. The introduction of sanctions has served as such as a necessary impetus that will help move Russia to export-oriented production and take a leading position in world trade. At the moment Russia has all the necessary capabilities, but with the necessary state support of the agrarian business, innovative development of the sector and the adoption of relevant draft laws, the country will cope with the economic crisis much faster.

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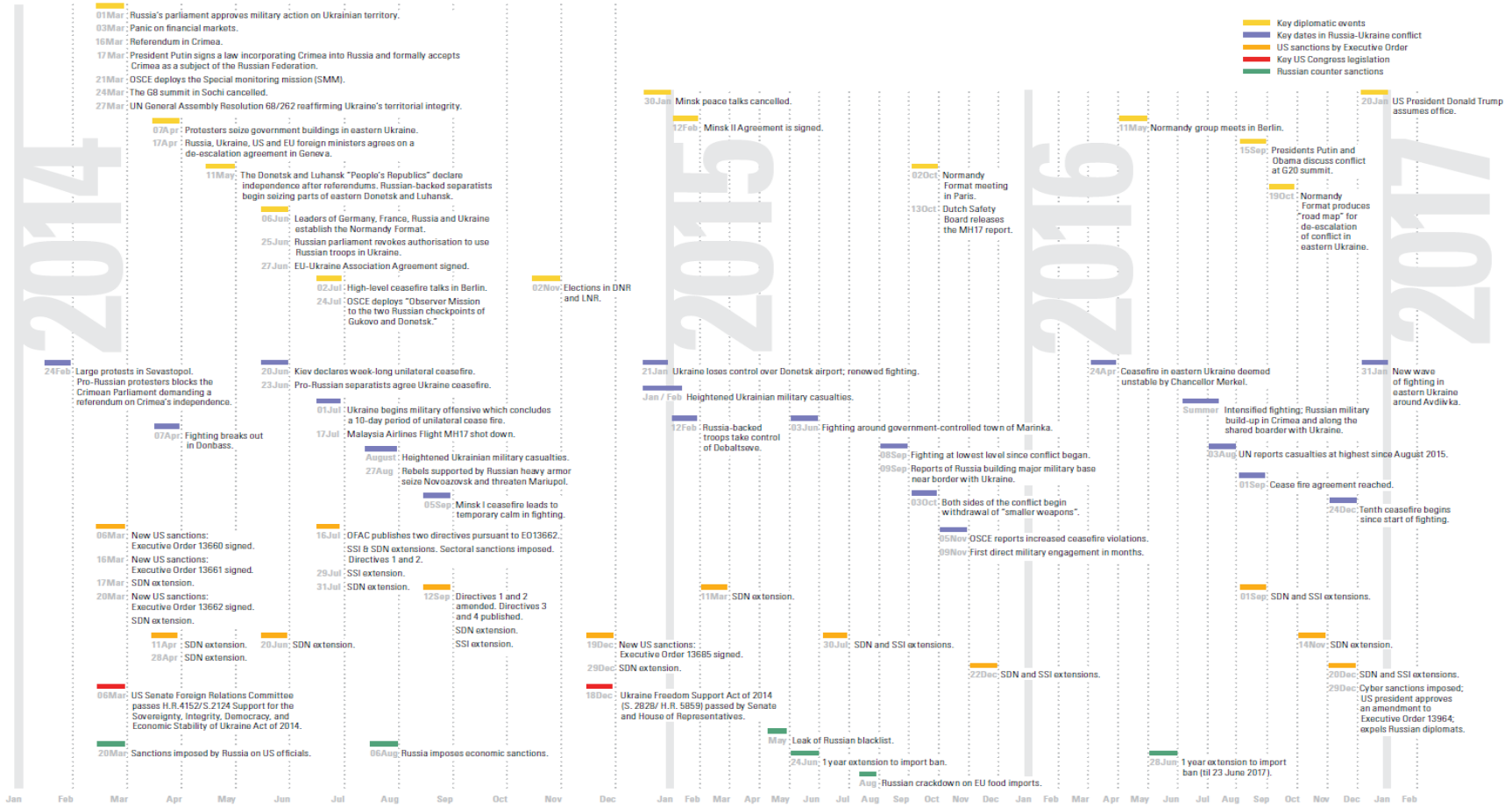
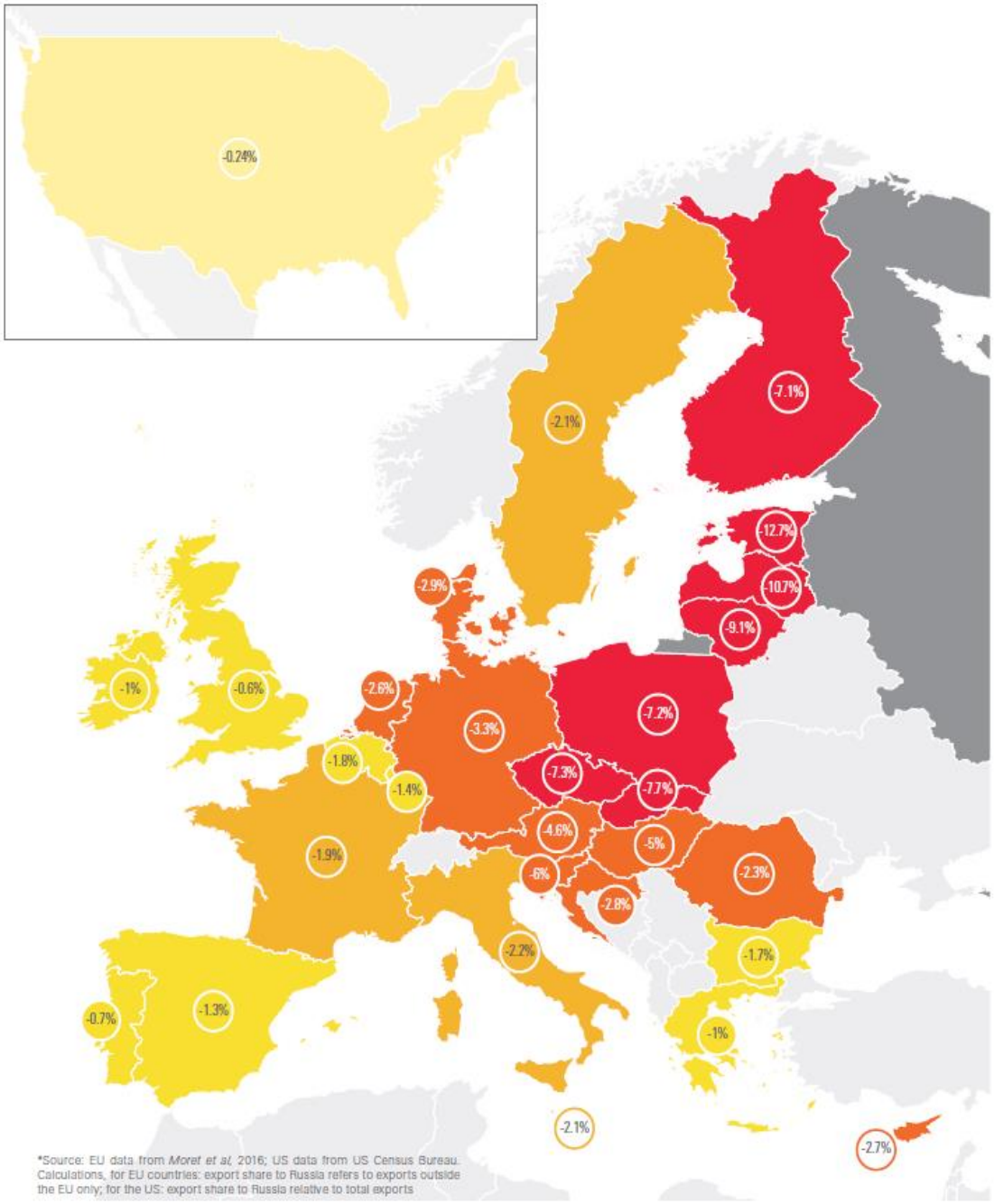
Appendixes

Appendix A Timeline of US/EU sanctions in response to the Russia – Ukraine crisis



Source: Adapted from Moret et al. (2016), which also includes dates of key EU sanctions.

Appendix B Decline in export share to Russia for the US and the EU (2013 – 2015)



*Source: EU data from *Moret et al*, 2016; US data from US Census Bureau. Calculations, for EU countries: export share to Russia refers to exports outside the EU only; for the US: export share to Russia relative to total exports

Appendix C Dynamics of the consumer price index for certain groups of goods (in percentage to the previous month)

Group of goods / Month	01	02	03	04	05	06	07	08	09	10	11	12
The average for the years 2009 - 2013												
Meat and poultry	100.7	100.5	100.2	100.0	100.4	100.4	100.6	100.7	100.7	100.4	100.0	100.3
Fish and seafood	100.8	101.3	101.0	100.5	100.5	100.4	100.3	100.3	100.3	100.3	100.4	100.7
Milk and milk products	100.8	100.7	100.5	100.2	99.8	99.8	100.1	100.9	101.5	101.5	101.2	101.1
Fruit and vegetable products	106.7	103.6	102.6	100.5	104.4	104.4	98.8	89.9	93.1	98.8	101.1	103.6
2014												
Meat and poultry	99.9	100.1	100.4	104.4	102.6	101.8	99.9	102.5	102.9	101.3	99.8	101.5
Fish and seafood	100.8	101.4	101.4	100.9	100.8	100.7	100.8	101.4	101.9	101.8	101.8	103.8
Milk and milk products	101.1	101.1	102.6	100.9	100.4	100.3	101.1	100.2	100.8	101.2	101.0	101.7
Fruit and vegetable products	105.8	105.1	105.3	102.4	97.2	91.9	105.8	89.3	98.8	102.8	108.7	112.9
2015												
Meat and poultry	103.2	100.9	100.3	100.2	100.0	99.8	100.1	100.2	100.3	99.9	99.6	99.7
Fish and seafood	106.5	105.5	103.1	101.2	100.0	100.2	100.0	100.3	100.6	100.9	100.7	100.5
Milk and milk products	102.4	102.8	101.3	100.7	100.4	100.0	100.1	100.2	100.4	100.6	101.0	101.2
Fruit and vegetable products	122.1	107.2	101.2	96.3	99.0	95.0	95.8	90.2	97.7	102.9	105.6	106.6
2016												
Meat and poultry	99.84	99.26	99.67	99.7	100.4	99.8	100.3	100.6	100.9	100.7	100.3	100.3
Fish and seafood	100.95	101.51	101.1	100.9	101.6	100.7	100.8	100.2	99.9	100.1	100.1	100.5
Milk and milk products	100.82	100.71	100.8	100.5	100.2	100.5	100.2	100.3	100.8	101.6	101.3	101.5
Fruit and vegetable products	106.15	102.25	98.7	99.9	100.5	98.9	95.8	91.1	94.6	102.5	102.4	100.8

Source: Rosstat